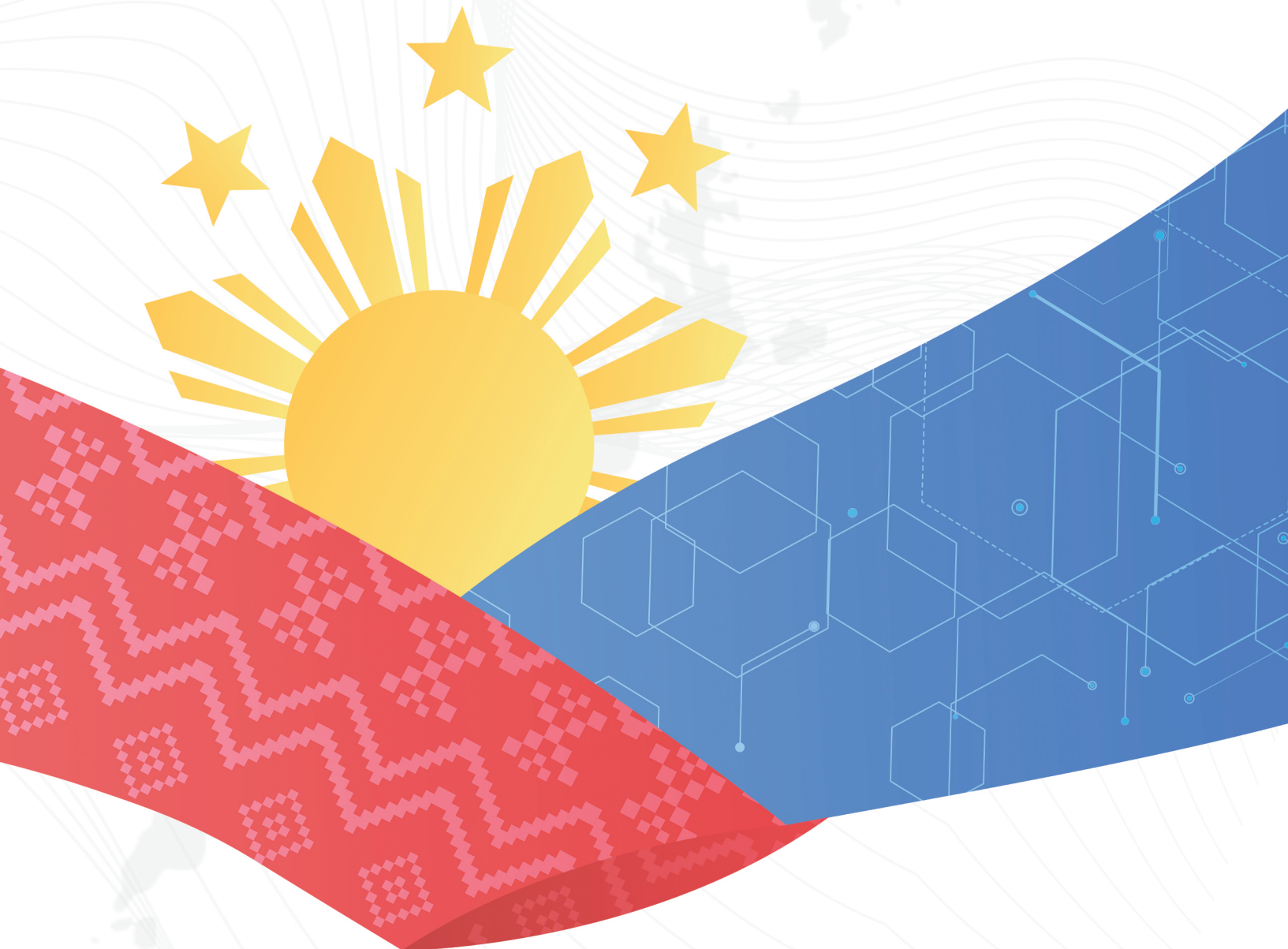




MIMAROPA REGIONAL DEVELOPMENT PLAN

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MIMAROPA

Regional Development Plan

2023 - 2028

Table of Contents

Message	xvii
Message	xix
Preface	xx
PART I: INTRODUCTION	1
Chapter 1 Overview of the Regional Economy, Development Context, and Trends	3
Assessment	5
Regional Trends	10
Social and Demographic Trends	10
Economic Trends	11
Technological Trends	12
Environmental Trends	12
Chapter 2 Regional Spatial Development Framework	13
Regional Profile	15
Geographic Location	15
Population Size and Distribution	17
Physical Characteristics	19
Regional Spatial Framework	30
Concentration/Urban Agglomeration	30
Five-tiered Hierarchy of Settlements	30
Settlements Development Framework	33
Proposed Spatial Strategy	38
Connectivity	44
Vulnerability Reduction	46
Exposure Minimization	51
Hazard Mitigation	51
Enhancing Adaptive Capacity	51

Chapter 3 Overview of the MIMAROPA Regional Development Plan 2023-2028 Strategy Framework	57
Headline targets	64
PART II: DEVELOP AND PROTECT CAPABILITIES OF INDIVIDUALS AND FAMILIES	69
Chapter 4 Promote Human and Social Development	71
Sub-Chapter 4.1 Boost Health	73
Assessment and Challenges	73
Targets	75
Strategies	77
Legislative Agenda	82
Sub-chapter 4.2 Improve Education and Lifelong Learning	83
Assessment and Challenges	83
Targets	87
Strategies	89
Legislative Agenda	94
Sub-chapter 4.3 Establish Livable Communities	95
Assessment and Challenges	95
Targets	99
Strategies	100
Legislative Agenda	104
Chapter 5 Reduce Vulnerabilities and Protect Purchasing Power	105
Subchapter 5.1 Ensure Food Security and Proper Nutrition	107
Assessment and Challenges	107
Targets	109
Strategies	110
Legislative Agenda	117
Sub-chapter 5.2 Strengthen Social Protection	118
Assessment and Challenges	118
Targets	120

Strategies	120
Legislative Agenda	126
Chapter 6 Increase Income-Earning Ability	127
Assessment and Challenges	129
Targets	131
Strategies	131
Legislative Agenda	135
PART III: TRANSFORM PRODUCTION SECTORS TO GENERATE MORE QUALITY JOBS AND COMPETITIVE PRODUCTS	137
Chapter 7 Modernize Agriculture and Agribusiness	139
Assessment and Challenges	141
Targets	143
Strategies	145
Legislative Agenda	154
Chapter 8 Revitalize Industry: Science, Technology, and Innovation-driven Industrialization	157
Assessment and Challenges	159
Targets	161
Strategies	162
Legislative Agenda	165
Chapter 9 Reinvigorate Services	167
Assessment and Challenges	169
Targets	170
Strategies	171
Legislative Agenda	176
Chapter 10 Advance Research and Development, Technology, and Innovation	177
Assessment and Challenges	179
Targets	181
Strategies	182
Legislative Agenda	185

Chapter 11 Promote Trade and Investments	187
Assessment and Challenges	189
Targets	191
Strategies	191
Legislative Agenda	193
PART IV: ENABLING ENVIRONMENT	195
Chapter 12 Ensure Macroeconomic Stability	197
Subchapter 12.1 Promote an Innovative, Inclusive, and Healthy Financial Sector	199
Assessment and Challenges	199
Targets	200
Strategies	202
Legislative Agenda	204
Subchapter 12.2 Ensure Sound Fiscal Management and Improve the Tax Regime	205
Assessment and Challenges	205
Targets	206
Strategies	207
Legislative Agenda	209
Chapter 13 Expand and Upgrade Infrastructure	211
Assessment and Challenges	213
Strategies	227
Legislative Agenda	242
Targets	243
Chapter 14 Ensure Peace and Security and Enhance Administration of Justice	245
Sub-chapter 14.1 Ensure Peace and Security	247
Assessment and Challenges	247
Targets	253
Strategies	253
Legislative Agenda	255
Subchapter 14.2 Enhance Administration of Justice	256
Assessment and Challenges	256

Targets	257
Strategies	259
Legislative Agenda	261
Chapter 15 Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency	263
Assessment and Challenges	265
Competitiveness and Effectiveness	267
Targets	267
Strategies	268
Legislative Agenda	274
Chapter 16 Accelerate Climate Action and Strengthen Disaster Resilience	275
Assessment and Challenges	277
Targets	279
Strategies	280
Legislative Agenda	284
 PART V: PLAN IMPLEMENTATION, MONITORING, AND EVALUATION	285
Chapter 17 Plan Implementation, Monitoring, and Evaluation	287
Plan Implementation	289
Monitoring and Evaluation	291
Acronyms	293
Glossary	308
References	311
Planning Committees	312
RDP Chapter Writers	321
MIMAROPA RDP Teams	324
Graphics, Design, and Layout	325
AVP and IEC Materials	325
Production	325
Overall Plan Secretariat	326

List of Tables and Figures

CHAPTER 1

Table 1.1 GRDP by Region, Philippines, 2019-2021 (At constant 2018 prices)	5
Figure 1.1 Share of Major Sectors to Regional Economy, MIMAROPA, 2021	6
Figure 1.2 Annual Labor Force Rates, MIMAROPA, 2017-2021	7
Figure 1.3 Population Level, MIMAROPA, 2000-2025	8
Figure 1.4 Poverty Incidence, MIMAROPA, 2003-2018	9

CHAPTER 2

Figure 2.1 Administrative Map of the MIMAROPA Region	16
Figure 2.2 Population Distribution by Municipality, MIMAROPA, 2020	18
Figure 2.3 Topographic Slice of Mindoro Island	19
Table 2.1 Land Area Estimates per Slope Category by Province, MIMAROPA	20
Table 2.2 Land Classification by Province, MIMAROPA	21
Figure 2.4 Land Classification Map of the MIMAROPA Region	22
Figure 2.5 Critical Watersheds in MIMAROPA	23
Table 2.3 Protected Areas by Province, MIMAROPA	24
Figure 2.6 Protected Areas in MIMAROPA, 2023-2028	26
Table 2.4 Land Cover, MIMAROPA, 2015	27
Figure 2.7 Land Cover Map, MIMAROPA, 2015	28
Figure 2.8 Strategic Agricultural and Fishery Development Zones, MIMAROPA, 2020	29
Table 2.5 Five-Tiered Hierarchy of Settlements, MIMAROPA, 2023-2028	31
Figure 2.9 Hierarchy of Settlements in the MIMAROPA Region, 2023-2028	32
Figure 2.10 Overlay Map of Areas Restricted to Urban Development in the MIMAROPA Region	34
Table 2.6 Settlements Framework Parameters by Weight in MIMAROPA	35
Figure 2.11 Sieve Mapping Parameters for the Formulation of Regional Settlements Framework, 2023-2028	36
Figure 2.12 Settlements Development Framework for MIMAROPA Region. 2023-2028	37
Figure 2.13 Proposed Spatial Strategy of Occidental Mindoro, 2023-2028	39
Figure 2.14 Proposed Spatial Strategy of Oriental Mindoro, 2023-2028	40
Figure 2.15 Proposed Spatial Strategy of Marinduque, 2023-2028	41
Figure 2.16 Proposed Spatial Strategy of Romblon, 2023-2028	42
Figure 2.17 Proposed Spatial Strategy of Palawan, 2023-2028	43
Figure 2.18 Integrated development concept of the MIMAROPA Regional Spatial Strategy Framework	45
Figure 2.19 Flood Prone Areas in MIMAROPA	46
Figure 2.20 Liquefaction Prone Areas in MIMAROPA	47
Figure 2.21 Active Faults in MIMAROPA	48

Figure 2.22 Vulnerability Reduction Framework of the MIMAROPA Region, 2023-2028	49
Table 2.7 Affected Built-up Areas by Extreme Hazards/Combination of Hazards by Province, MIMAROPA	50
Figure 2.23 Production Land Use Map of the MIMAROPA Region, 2023-2028	53
Figure 2.24 Protection Land Use Map of the MIMAROPA Region	54
Figure 2.25 Infrastructure Map of the MIMAROPA Region	56

CHAPTER 3

Figure 3.1 MIMAROPA RDP 2023-2028 Strategy Framework	60
Figure 3.2 GRDP, Poverty Incidence, Population, Employment, MIMAROPA, 2007-2040	64
Table 3.1 Headline Targets, MIMAROPA, 2023-2028 (in percentage)	65
Table 3.2 Headline Targets, MIMAROPA, 2023-2028 (in actual units)	67

CHAPTER 4

Table 4.1.1 Indicator Matrix	75
Figure 4.1.1 Strategy Framework to Boost Health	77
Table 4.1.2 List of Major Programs and Projects to Boost Health	81
Table 4.1.3 Legislative Agenda to Boost Health	82
Table 4.2.1 Indicator Matrix	87
Figure 4.2.1 Strategy Framework to Improve Education and Lifelong Learning	89
Table 4.2.2 List of Major Programs and Projects to Improve Education and Lifelong Learning	93
Table 4.2.3 Legislative Agenda to Improve Education and Lifelong Learning	94
Table 4.3.1 Indicator Matrix	99
Figure 4.3.1 Strategy Framework to Establish Livable Communities	100
Table 4.3.2 List of Major Programs and Projects	104
Table 4.3.3 Legislative Agenda to Establish Livable Communities	104

CHAPTER 5

Table 5.1.1 Indicator Matrix	109
Figure 5.1.1 Strategy Framework to Ensure Food Security and Proper Nutrition	110
Table 5.1.2 Legislative Agenda to Ensure Food Security and Proper Nutrition	117
Table 5.2.1 Indicator Matrix	120
Figure 5.2.1 Strategy Framework to Strengthen Social Protection	120
Table 5.2.2 List of Major Programs and Projects to Strengthen Social Protection	125
Table 5.2.3 Legislative Agenda to Strengthen Social Protection	126

CHAPTER 6

Table 6.1 Indicator Matrix	131
Figure 6.1 Strategy Framework to Increase Income-earning Ability	131
Table 6.2 List of Major Programs and Projects	135
Table 6.3 Legislative Agenda to Increase Income-earning Ability	135

CHAPTER 7

Table 7.1 Indicator Matrix	143
Figure 7.1 Strategy Framework to Modernize Agriculture and Agribusiness	145
Table 7.2 MIMAROPA Agribusiness Opportunities by Province	149
Table 7.3 Municipalities with No CLUPs and For Updating (as of June 2022)	152
Table 7.4 Legislative Agenda to Modernize Agriculture and Agribusiness	154

CHAPTER 8

Table 8.1 Indicator Matrix	161
Figure 8.1 Strategy Framework to Revitalize Industry	162
Table 8.2 Legislative Agenda to Revitalize Industry	165

CHAPTER 9

Table 9.1 Indicator Matrix	170
Figure 9.1 Strategy Framework to Reinvigorate Services	171
Table 9.2 Legislative Agenda to Reinvigorate Services	176

CHAPTER 10

Table 10.1 Indicator Matrix	181
Figure 10.1 Strategy Framework to Advance Research and Development, Technology, and Innovation	182
Table 10.2 Legislative Agenda to Advance Research and Development, Technology, and Innovation	185

CHAPTER 11

Table 11.1 Indicator Matrix	191
Figure 11.1 Strategy Framework to Promote Trade and Investments	191
Table 11.2 Legislative Agenda to Promote Trade and Investments	193

CHAPTER 12

Table 12.1.1 Indicator Matrix	200
Figure 12.1.1 Strategy Framework to Promote an Inclusive, Innovative, and Healthy Financial Sector	202
Table 12.1.2 Legislative Agenda to Promote an Inclusive, Innovative, and Healthy Financial Sector	204
Table 12.2.1 Indicator Matrix	206
Figure 12.2.1 Strategy Framework to Ensure Sound Fiscal Management and Improve the Tax Regime	207
Table 12.2.2 Legislative Agenda to Ensure Sound Fiscal Management and Improve the Tax Regime	209

CHAPTER 13

Figure 13.1 Length of National Roads and Number of Registered Vehicles, MIMAROPA, 2016-2021	214
Figure 13.2 Length of National Roads by number of lanes	214
Figure 13.3 Distribution of Registered Vehicles by Vehicle Type and Registration Classification, MIMAROPA, 2021	215
Figure 13.4 Maritime Transport Statistics, MIMAROPA, 2016-2021	216
Table 13.1 Airport Statistics, MIMAROPA, 2016-2021	216
Figure 13.5 Aircraft Movement, MIMAROPA, 2016-2021	217
Figure 13.6 Passenger Traffic, MIMAROPA, 2016-2021	217
Figure 13.7 Air Cargoes, MIMAROPA, 2016-2021	218
Figure 13.8 Airport Location and Classification, MIMAROPA Region	219
Table 13.2 List of DICT Towers, MIMAROPA, as of October 2021	220
Figure 13.9 Existing Submarine Cables and Landing Points, MIMAROPA	221
Figure 13.10 Cellular Data Networks (2G, 3G, 4G, 5G), MIMAROPA	221
Figure 13.11 Households with Access to Safe Water, Level III Water Supply, and Sanitation Facility, MIMAROPA, 2016-2021	223
Figure 13.12 Dependable Capacity, Peak Demand, and Excess Capacity, MIMAROPA 2016-2021	224
Figure 13.13 Frequency and Duration of Power Interruptions by Province, MIMAROPA, 2021	225
Figure 13.14 Strategy Framework to Expand and Upgrade Infrastructure	227
Figure 13.15 Proposed Intermodal Connectivity and Inter-island Linkages in MIMAROPA	229
Figure 13.16 MIMAROPA Power Development Framework	235
Figure 13.17 Proposed LNG Complex	236
Table 13.3 List of Major Programs and Projects to Expand and Upgrade Infrastructure	241
Table 13.4 Legislative to Expand and Upgrade Infrastructure	242
Table 13.5 Indicator Matrix	243

CHAPTER 14

Figure 14.1.1 Location Map of Municipal and City Police Stations, MIMAROPA, 2022	249
Figure 14.1.2 Location of Evacuation Centers, MIMAROPA, 2022	250
Figure 14.1.3 Location of Fire Stations, MIMAROPA, 2022	251
Table 14.1.1 Indicator Matrix	252
Figure 14.1.4 Strategy Framework to Ensure Peace and Security	253
Table 14.1.2 List of Major Programs and Projects	254
Table 14.1.3 Legislative Agenda to Ensure Peace and Security	255
Figure 14.2.1 Number of Indigent Clients Provided with Legal Assistance, MIMAROPA, 2016-2020	256
Figure 14.2.2 Location Map of Jail and Prison Facilities, MIMAROPA, 2022	258
Table 14.2.1 Indicator Matrix	259
Figure 14.2.3 Strategy Framework to Enhance Administration of Justice	259
Table 14.2.2 Legislative Agenda to Enhance Administration of Justice	261

CHAPTER 15

Table 15.1 Indicator Matrix	267
Figure 15.1 Strategy Framework to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency	268
Table 15.2 List of Major Programs and Projects	274
Table 15.3. Legislative Agenda to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency	274

CHAPTER 16

Table 16.1 Indicator Matrix	279
Figure 16.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience	280
Table 16.2 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience	284

CHAPTER 17

Figure 17.1 Horizontal and Vertical Linkages of Local and National Plans and Investment Programs	290
Figure 17.2 PIP, CIPs, Non-CIPs, TRIP, and RDIP Relationship	291
Figure 17.3 Chain of Inputs, Outputs, Outcomes, and Impacts	292

Message



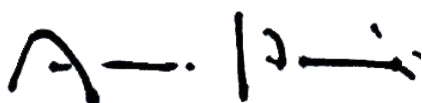
Living in a VUCA (volatile, uncertain, complex, and ambiguous) world and in a pandemic is a test of resilience and tenacity for all of us who strive to survive and thrive amid this unprecedented health and socioeconomic crisis. The challenges, strategies, and our plans may have changed, but our long-term vision, our AmBisyon Natin 2040 remains: t“matatag, maginhawa, at panatag na buhay” for all Filipinos by 2040.

Building upon the lessons learned from the COVID-19 pandemic, the National Economic and Development Authority (NEDA) has formulated and completed the Philippine Development Plan (PDP) 2023-2028. Our goal is to reinvigorate job creation and accelerate poverty reduction by steering the economy back to its high-growth path. We will work to achieve deep economic transformation for a prosperous, inclusive, and resilient society. Anchored on the 8-point Socioeconomic Agenda of President Ferdinand “Bongbong” R. Marcos, Jr.’s administration, the PDP contains strategies that address both short-term and medium-term constraints to economic growth. These encompass concerns such as the rising prices of commodities due to global inflationary pressures, the lingering effects of the COVID-19 pandemic on health and education, and the impact of global supply chain disruptions on employment and food security.

Addressing challenges of this magnitude requires a whole-of-government and whole-of-society approach. The Regional Development Plans (RDPs) are important complementary plans that must align with the national goals and vision, while addressing region-specific challenges and harnessing the regions' potentials for inclusive growth.

With this, I would like to convey my appreciation to the Regional Development Council of MIMAROPA for its commitment in formulating the MIMAROPA RDP 2023-2028 and directing numerous regional development initiatives.

Finally, we call for the cooperation of our local government units, regional agencies, private institutions, non-government organizations, and the civil society to join this collective endeavor. Through our united effort, I firmly believe that we are a step closer toward achieving a prosperous, inclusive, and resilient society in MIMAROPA region and the whole country.



ARSENIO M. BALISACAN

Secretary

National Economic and Development Authority

Message

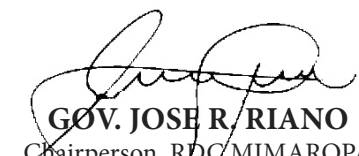


The MIMAROPA Regional Development Plan 2023-2028 – geared towards AmBisyon Natin 2040, Agenda 2030 for Sustainable Development, and President’s 8-point socioeconomic agenda – provides the strategies in harnessing the development potentials of MIMAROPA and gives the directions for the region to navigate the increasingly challenging path to economic recovery and high growth trajectory.

The Plan lays out priority strategies and projects that are designed to address socio-economic systems disrupted by the COVID-19 pandemic, along with the imminent threat of calamities and disasters.

As Chairperson of the Regional Development Council MIMAROPA, I would like to express my profound gratitude to all members of the RDC and its sectoral committees for their dedication, determination, and perseverance in championing the goal of empowered citizens and communities, food security, environmental integrity, and unified independent island provinces in the MIMAROPA Region, thereby making it the “Destination of Choice!”

I encourage everyone to act in unison and do our share in implementing the MIMAROPA RDP 2023-2028 with active strength, renewed vigor, and unwavering courage. These, along with our shared advocacy and effective implementation of this Plan, will lead us and the region to a “matatag, maginhawa, at mapanatag na buhay para sa lahat.”


GOV. JOSE R. RIANO
Chairperson, RDC MIMAROPA
Governor, Province of Romblon

Preface



Three years ago, we were all uncertain about the future, our welfare, and the development of our region. We experienced drastic changes due to multiple and simultaneous health, climate, biodiversity, geopolitical, peace, order, and security crises. Yet, we remained steadfast in embracing our collective vision of a strongly rooted, comfortable, and secure life by 2040.

The pandemic has taught us many things about MIMAROPA's economic resilience and social vulnerabilities. As we tread a steady route to recovery, the MIMAROPA Regional Development Plan (RDP) 2023-2028 will guide us in bringing the region back to its original high growth trajectory through social and economic transformation.

It is a necessary response, and a development blueprint that seeks to reinvigorate job creation and accelerate poverty reduction, enhance connectivity through infrastructures to link markets and urban centers, and keep food prices low and stable.

Along with the MIMAROPA Regional Development Investment Program (RDIP) 2023-2028, the RDP will provide the mechanisms to ensure transformative and inclusive growth that will significantly contribute to the recovery, welfare, and well-being of every MIMAROPAn.

As development yardsticks, the RDP and RDIP are also tools that measure economic performance to determine if the desired outputs and development goals as planned are realized. Through results monitoring and evaluation, plan implementation can be facilitated accordingly.

Together with our development partners and stakeholders, we bring you the MIMAROPA RDP 2023-2028 – isang Planong sentro ang mamamayan tungo sa masagang lipunan!



AGUSTIN C. MENDOZA, ENP
Vice Chairperson, RDC MIMAROPA
Regional Director, NEDA MIMAROPA

PART I

Introduction

01

Overview of the Regional Economy, Development Context and Trends

CHAPTER 1

OVERVIEW OF THE REGIONAL ECONOMY, DEVELOPMENT CONTEXT, AND TRENDS

Assessment

Macroeconomy

In 2018, MIMAROPA was the second fastest growing region together with Davao Region and next to Bicol Region. The recorded 8.6 percent growth rate outpaced National Capital Region's (NCR) and the country's growth rate of 5.6 percent and 6.3 percent, respectively.

MIMAROPA recorded its highest gross regional domestic product (GRDP) in 2019, which was attributed mainly to the high growth of services sector at 6.0 percent. Services remained the largest contributor to the growth of MIMAROPA's economy, as it contributed 2.7 percentage points to the region's economic growth in 2019. Agriculture, forestry and fishing, followed with 0.9 percentage point contribution while Industry accounted to 0.3 percentage point.

When the Coronavirus disease 2019 (COVID-19) pandemic hit the country in March 2020, MIMAROPA's economy contracted by 7.5 percent by year-end from a positive growth rate of 4.3 percent in 2019. This was the lowest growth rate recorded by the region, vis-à-vis its growth performance of only 0.8 percent in 2010. This growth, nonetheless, was still a few percentage points better than the national average growth of -9.6 percent in 2020 (Table 1.1).

The region's economy bounced back on the second year (2021) of the pandemic by 3.3 percent growth rate, a rebound from the 7.6 percent contraction recorded in 2020. This may be attributed to the measures implemented by the government in managing the pandemic such as the imposition of granular lockdowns and aggressive vaccination campaigns. The gradual reopening of the economy, the implementation of Build, Build, Build (BBB) Program and social protection initiatives of the government helped trigger the economic rebound.

Table 1.1 GRDP by Region, Philippines, 2018-2021 (At constant 2018 prices)

REGION	ANNUAL			
	2018	2019	2020	2021
Philippines	6.3	6.1	-9.5	5.7
National Capital Region	5.6	7	-10	4.4
Cordillera Administrative Region	5.7	4.4	-10.2	7.5
Ilocos Region	5.9	7.3	-7.7	4.6
Cagayan Valley	4.6	6.9	-9.8	5.1
Central Luzon	6.9	5.9	-13.9	7.4
CALABARZON	7.1	4.6	-10.5	7.6
MIMAROPA Region	8.6	4.3	-7.5	3.3
Bicol Region	6.9	8.2	-8.3	4.3
Western Visayas	4.8	6.3	-9.7	5.9

REGION	ANNUAL			
	2018	2019	2020	2021
Central Visayas	7.1	6.2	-9.5	5.4
Eastern Visayas	7	5.6	-7.4	6
Zamboanga Peninsula	6.3	4.6	-5.2	5.7
Northern Mindanao	7.1	5.6	-5.3	6.3
Davao Region	7.2	7.1	-7.5	5.9
SOCCSKSARGEN	6.9	3.5	-4.4	5.2
Caraga	5.2	5.4	-6.9	7.2
Bangsamoro Autonomous Region in Muslim Mindanao	7.7	5.8	-1.9	7.5

Source: Philippine Statistics Authority (PSA)

Gross Regional Domestic Product (GRDP). The region saw a resurgence as the economy posted a positive growth from the disruptions brought by the pandemic. Strategies on scaling up of the vaccination rollout, relaxation of mobility and border restrictions, and reopening of multiple sectors underpinned expectations of stronger economic activities paralleled by improved business confidence and consumer spending.

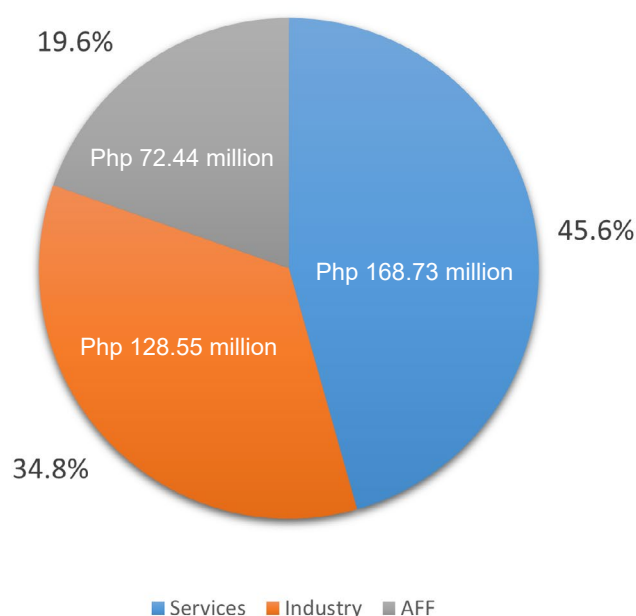
On the supply side, growth was driven by the contributions from services with 45.6 percent; industry with 34.8 percent; and agriculture, forestry,

and fishing with 19.6 percent (Figure 1.1).

The services sector experienced a robust growth with the expansion of all sub-sectors except for financial and insurance activities.

Notably, the growth in the services sector was brought about by the sizeable expansion in human health and social work activities at 17.1 percent and information and communication at 11 percent, which was driven largely by online business opportunities, increased internet connection demand and usage, and continuous shift to virtual meetings and activities.

Figure 1.1 Share of Major Sectors to Regional Economy, MIMAROPA, 2021



Source: PSA

The Agriculture, Forestry, and Fishing (AFF) sector rebounded from a negative 2.0 percent growth in 2020 to a respectable 5.2 percent growth in 2021. The significant increase may be attributed to the increased volume of production of crops, livestock and poultry, and fisheries. In 2021, AFF accounted for 19.6 percent of the region's economy compared to the 19.2 percent contribution in 2020.

On the demand side, growth in 2021 was buoyed by the steep rise in gross capital formation at 22.9 percent. The reversal was mainly attributed to rise in intellectual property products (IPP) and construction. The remarkable reversal in IPP from -28.6 percent in 2020 to 21.8 percent in 2021 was due to increased intangible fixed assets (e.g., royalties, patents), mineral exploration and evaluation, and entertainment, literary, and artistic originals.

Moreover, construction's significant upturn from -27.5 percent in 2020 to 16.6 percent in 2021 can be attributed to the completion of critical infrastructure projects, such as the rehabilitation of national roads, construction and improvement of bridges, and build, repair, or maintenance of flood control structures.

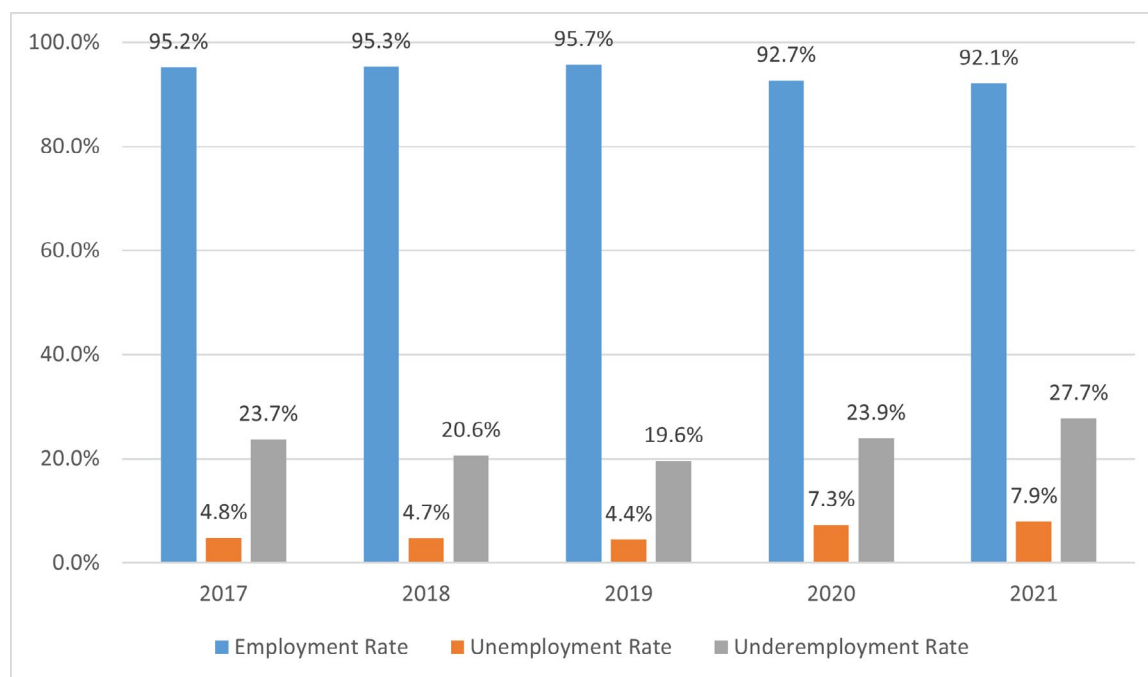
Household consumption grew by 5.8 percent, which indicated the restoration of consumer confidence and abated infections as a result of easing quarantine restrictions and the accelerated vaccination.

Government expenditure also expanded by 7.1 percent. Exports climbed from -46.0 percent to -1.3 percent this year. The same trend can be seen in imports with -20.9 percent in 2021 compared to -28.8 percent in 2020.

Labor Force and Employment. Employment rate in the region has been declining since the onset of COVID-19, from 95.67 percent employment rate in 2019 to 92.7 percent in 2020 to 92.1 percent in 2021. Unemployment rate consequently started to increase from 4.4 percent in 2019 to 7.3 percent in 2020 and 7.9 percent in 2021. This can be attributed to the continued imposition of border restrictions and alert level systems in some provinces as well as the onslaught of tropical cyclones that hit the region (Figure 1.2).

Underemployment rate also escalated from 19.6 percent in 2019, to 23.9 percent in 2020 and 27.7 percent in 2021, respectively.

Figure 1.2 Annual Labor Force Rates, MIMAROPA, 2017-2021



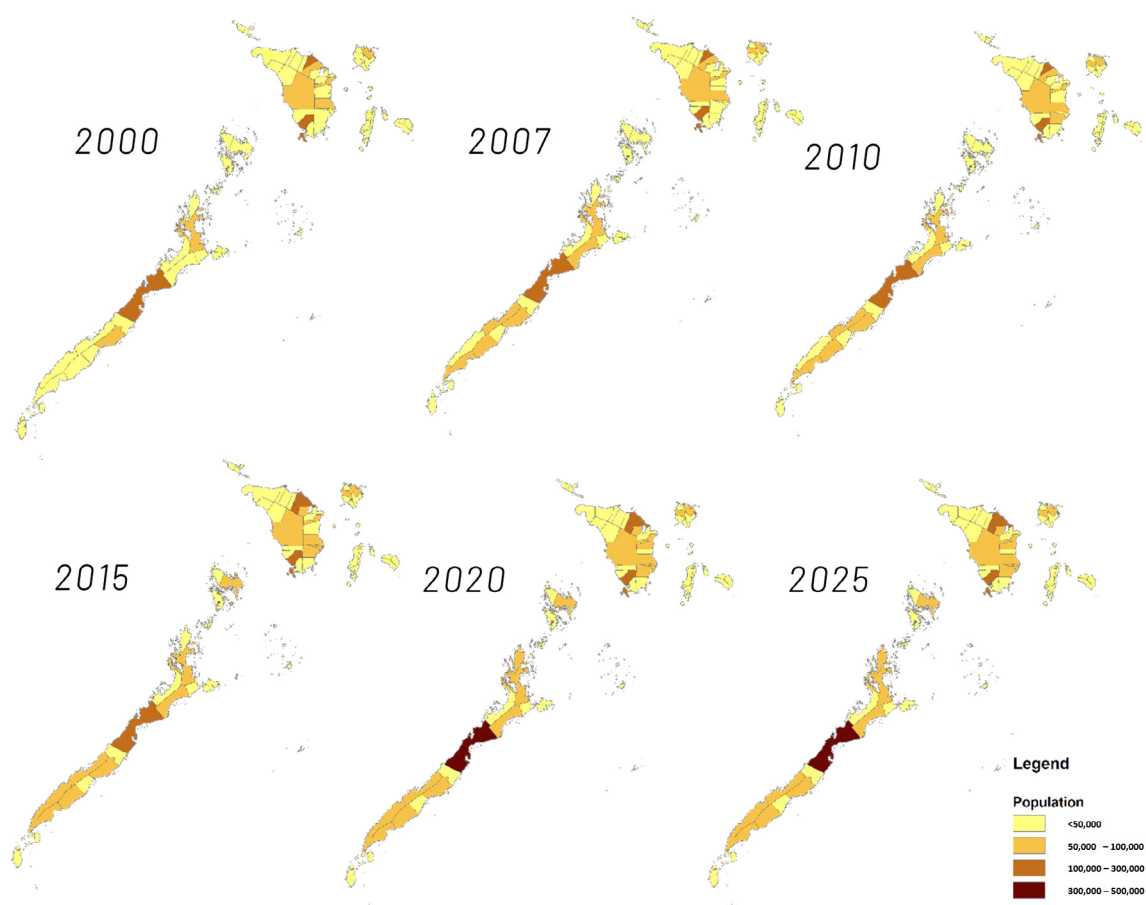
Source: PSA

Population Level and Density. From 2000-2020, most of the municipalities in MIMAROPA were considered small towns in terms of population level with reference to the National Spatial Strategy (NSS). Calapan City in Oriental Mindoro and San Jose in Occidental Mindoro remained in the large town category with 105,910 individuals and 111,009 individuals in 2000 to 145,786 individuals and 153,267 individuals in 2020, respectively. On the other hand, Puerto Princesa City was considered as large city/major urban center in 2020 with 307,079 individuals (Figure 1.3).

In 2020, a total of 51 municipalities remained in small town category with population ranging from 0 to 50,000. This was followed by 18 municipalities at medium town category.

In 2020, the region's total population was recorded at 3,228,558 of which, 1,138,021 are located in urban areas while, 2,090,537 are located in rural areas. The region's population density reached 109 persons per square kilometer in 2020.

Figure 1.3 Population Level, MIMAROPA, 2000-2025



Generated by NEDA MIMAROPA (PFPD)
Source: PSA

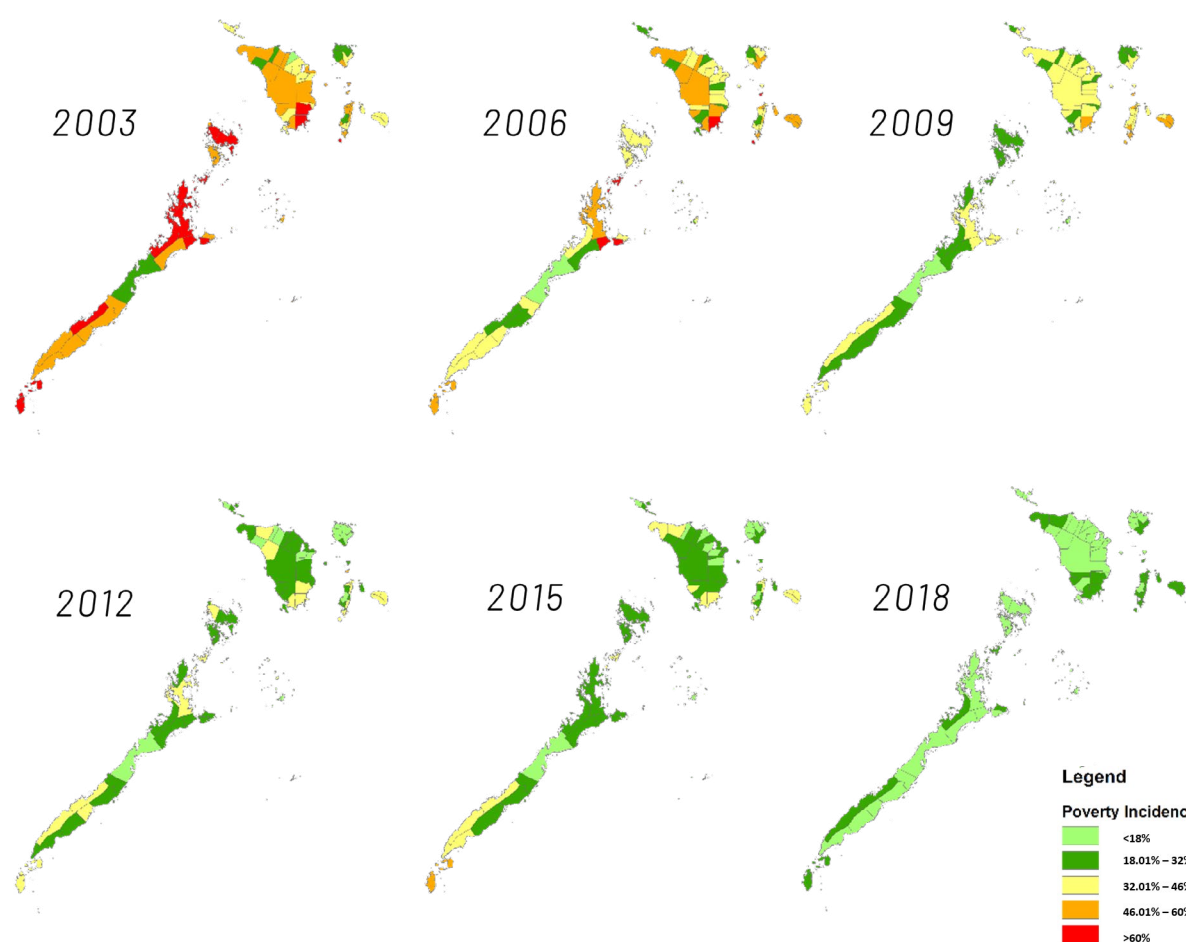
Poverty Situation. Based on the Small Area Estimates (SAE) released by PSA, poverty incidence in the region significantly improved from 2003 to 2018 (Figure 1.4).

In 2003, poverty incidence ranging from high (46 percent to 60 percent of population) to very high (>60 percent) was prevalent in all municipalities in the region. The province of Palawan recorded the

highest number of municipalities with high poverty incidence, namely, Araceli, Agutaya, Balabac, Busuanga, Coron, Dumarán, El Nido, Linapacan, Magsaysay, Quezon, San Vicente, and Taytay.

In 2018, all cities and municipalities in the region significantly improved to very low (18.01 percent to 32 percent of the population) and low (0 percent to 18 percent of the population) poverty incidence levels.

Figure 1.4 Poverty Incidence, MIMAROPA, 2003-2018



Generated by NEDA MIMAROPA (PFPD)
Source: PSA

Regional Trends

Social and Demographic Trends

Extended impact of COVID-19 pandemic. The spread of COVID-19 magnified the limitations of the Philippine health care system. This left Filipinos in disarray with quarantine restrictions, especially when it transitioned from a minor health issue to a multi-dimensional global pandemic. While vaccination measures have caused a significant drop in mortality and hospitalization rates, new strains have emerged and crossed national borders. In MIMAROPA, the regional health authorities persevered to achieve target of at least 80 percent fully vaccinated individuals in 2022. This was slowly realized despite various concerns of the people against the vaccine, especially in Palawan.

Equitable access to Universal Health Care. Access to health care services remains to be a persisting concern in the region. The pandemic did not help in raising critical concern for one's health and may have even planted some fear in the capability of the health system, especially among those that live far from health facilities. Epidemiological surveillance functions are lacking in local health facilities. Lack of testing capacity and poor data availability were highlighted. Capacities of primary health care facilities are limited and this resulted in the congestion of hospitals. To address these weaknesses, the region is treading the path of increased investments in health infrastructure and human resources for health. Proposals for state-of-the-art health facilities are in the pipeline. For example, the elevation of the status of the Oriental Mindoro Provincial to a regional hospital and the Oriental Mindoro Central District Hospital into the new provincial hospital are being pursued. The Culion General Hospital and Sanitarium, likewise, has investments and improvements laid out in the next several years, such as the construction of Communicable Disease Building Phase 2, expansion of laboratory, construction of waste management facility, and procurement of medical equipment, among others. Along with these facilities come plans to increase the numbers of doctors, nurses, and midwives, with the population-to-nurse ration seeing excellent figures in the past few years, that is, 1:3,999 in 2021.

Well-managed population growth. MIMAROPA's population through the years has shifted to a steady decrease of young dependents under age group 0-14. Yet, young people still makeup the large proportion of the population. In 2022, fertility rate in the country was recorded at 1.9 births per female in reproductive age (15 – 49 years). This rate will further the attainment of the ideal household size of 4.0 from the average household size of 4.1 in 2020. Consequently, a positive demographic transition is expected to begin, which is characterized by a large number of working age group to accelerate economic growth, provided that employment opportunities are also steadily generated.

Population management is also seen as a significant factor to sustain economic growth. The slower growth of the population will result in higher GRDP per capita as overall GRDP increases over time. Hence, the government can look further at the population replacement rate to stabilize population level while pursuing a high sustained growth. This will increase GRDP per capita at a faster rate.

Poverty incidence during pandemic. The impact of the pandemic during the past two years can be observed in the poverty situation and trends of the region. As reported by the Philippine Statistics Authority, the poverty incidence among population in MIMAROPA in 2021 increased to 20.8 percent from 15.1 percent in 2018, during the time that the region hit Php 370 billion of GRDP, on par with GRDP growth rate of Bicol and second only to Davao regions. The poverty incidence in 2021 translates to around 667,900 MIMAROPANS living in poverty. PSA notes that the region is among those with significant increases in this iteration of the poverty statistics.

Poor families would need Php 10,967.16 to meet food and non-food requirements. With their current income, based on our 2021 Family Income and Expenditure Survey, an additional income of Php 2,544.38 is needed by a poor family of five to move out of poverty.

The economic disruption pushed some establishments to close permanently and temporarily stop their operations because of community lockdowns, which then led to the increase in revenue losses and unemployment in the region. This was exacerbated by the typhoons that occurred in the region from 2018 to 2021. Natural disasters further aggravated the problem as unemployment impact arose from livelihood losses and damages.

Inflation diminishes the purchasing power of individuals and families. In 2022, headline inflation rate in the region showed an upward trend. According to the Bangko Sentral ng Pilipinas (BSP), inflation will further rise if external risks continue. Monetary policy interventions are expected to tame inflationary pressures.

Accumulated housing needs. To address the country's housing deficit, the Department of Human Settlements and Urban Development (DHSUD) targets to construct a million housing units per year. In MIMAROPA, housing needs reached to an estimated 280,094 units as of 2022. The accumulated backlogs were reported by DHSUD to result from informal settler families (ISFs), displaced households in hazard areas, affected by infrastructure projects, households for eviction and houses for demolition, and areas occupied with landowners willing to sell the property. There are also 108,137 ISFs recorded in the region. It is envisioned by the current administration that there are zero ISFs by 2028. It was also proposed that the public housing sector would be provided and receive higher budgets to address housing needs and keep pace with the growth of the population. However, housing projects, such as those for Yolanda Permanent Housing Program are plagued by procedural conflicts such as titles and inclusion in forest covers.

Gearing up for lifelong learning. The education sector has been resilient despite the effects of COVID-19 pandemic. Through the implementation of blended or flexible learning, children were able to continue with their formal education. On the average, net enrollment rate for basic education sector has increased. However, graduation rate declined. In response, the Department of Education (DepEd) implemented the learning continuity plan to ensure health, safety, and well-being of the students, teachers, and staff during the COVID-19 crisis through the reintroduction of blended learning and face-to-face classes.

In October 2022, the DepEd issued Order No. 44, s. 2022, as amendment to DepEd Order No. 34, s. 2022, which allowed private schools to continue implementing blended learning modality or full distance learning. All public schools, however, should have transitioned to 5 days in-person classes starting November 2022. Following the new normal, 2,604 schools implement 5 days in-person classes, 72 schools implement blended learning modality, and only three school implement full distance

learning. With the republic's vice-president at the helm of the Department of Education, programs and policies are expected to be responsive to the challenge of the times.

In higher education, there was an observed growth in the number of enrollees in higher education institutions (HEIs) in the region compared to the declining number of graduates since 2017. The decline in graduation rates may be attributed to students not being able to comply with academic requirements because of the required shift to online learning as a response to the effect of the pandemic. However, the higher education sector continues to strengthen the capacity of HEIs in delivering quality education and offering courses that were prioritized by the Commission on Higher Education (CHED) and approved by the Regional Development Council (RDC) based on the needs of the region and industries. The continuous implementation of the Universal Access to Quality Tertiary Education Act would support in providing equal opportunity and increasing the participation rate of all students in the tertiary education.

As the country adapts to the demands of the Fourth Industrial Revolution (FIRE), the region has adopted the principles of lifelong learning in its educational thrusts. Basic education, higher education, and technical vocational education and training (TVET) programs are now under the Philippine Qualifications Framework (PQF), which will enable learners and educators ride the wave of rapid technology change and rising need for updating knowledge and skills on-demand. The increase in enrollment and graduates in the TVET sector in MIMAROPA coupled with enhanced training and skills development programs, learning modalities, and facilities would increase the chances of the region to produce workers that are more competitive and employable.

Economic Trends

The region's economy will return to its pre-pandemic trajectory. A growing regional economy is imperative to achieving our long-term vision of enjoying a strongly rooted, comfortable, and secure life in 2040. From 2006 to 2019, the MIMAROPA region was gearing towards sustained economic growth as it achieved its highest GRDP level in 2019 at Php 387 billion. However, the unprecedented health crisis due to the COVID-19 pandemic in 2020 disrupted growth as it caused the region's economic downturn.

A growth scenario analysis was conducted to determine the timeframe of the region's recovery to be at par with the GRDP 2019 level. Based on the scenario analysis, the regional economy must grow to at least 7 percent by 2022. If the region steadily grows at 7 percent annually up to 2028, the economy will go back to its original growth trajectory and the GRDP will double by 2032. On the other hand, in a five percent growth scenario, the economic growth is estimated to be slower as the doubling of the GRDP would be attained in 2034 and the region is expected to return to the pre-pandemic growth trajectory in 2038. Nonetheless, full recovery will still be achieved before the end of the Ambisyon Natin 2040.

The population level was also considered in analyzing the economic scenario of the region. Analysis showed that the slower growth of the population will result to higher GRDP per capita. It was also observed that the GRDP per capita is inversely proportional to the poverty incidence as there was an observed decrease in poverty level as GRDP per capita increases. A 3.3 percentage point decrease in poverty incidence was estimated when GRDP doubles in 2032.

Technological Trends

Digital/Smart Technology and Demand in information and communications technology (ICT) services will continue to increase. E-commerce has been increasingly utilized by businesses and consumers as customers continue to prefer online transactions, including the expanded use of cashless payment systems and other financial technology platforms. This bodes well for the retail and other business activities sectors, including information technology and business process management. In production activities such as agriculture, there will be a gradual shift to smart agricultural machinery and equipment such as drip irrigation systems and drones to improve domestic agricultural production. However, continuous capacity building for the users should be done to fully maximize the use of such technologies.

Critical to the adoption of smart technologies and digitalization is a reliable internet connection. Access to fast, reliable, accessible, and affordable internet remains a major concern of the MIMAROPA region. The National Broadband Program (NBP) will accelerate the deployment of fiber optic cables and wireless technology to improve internet speed in the region.

The implementation of the Philippine Innovation Act will shape the future of innovation in the region. The Philippine Innovation Act was enacted in order to foster innovation in the country as a vital component of national development and sustainable economic growth. The Act mandates the creation of the National Innovation Council (NIC), which is tasked to develop innovation strategies as well as coordinate with various sectors and agencies pursuant to a whole-of-government approach. It is expected that the Research, Development, and Extension Activities will be intensified in the region, and the Regional Research, Development, and Innovation Committee (RRDIC) will provide crucial support for these activities. It is also expected that the region will benefit from the implementation of the law through improved productivity through research, development, and adaptation of new technologies.

Environmental Trends

Efforts in reducing vulnerability to climate change and natural disasters will continue to increase. The region is often hit by typhoons that cause flooding, landslides, and sometimes storm surges. This leads to the displacement of people and to damages and losses to infrastructure and agricultural assets. Disasters also lead to the loss of lives. For the past decade, more than 10 tropical cyclones have significantly affected the region. These natural disasters often disrupt economic activities and, more often than not, affect the same LGUs. The region will consider the Nationally Determined Contributions (NDC) in its climate programs and actions. With these, it is expected that some sectors such as agriculture and transportation will incorporate the NDC in its development programs and activities.

The MIMAROPA region is among those with least emissions yet most frequently hit by disasters such as typhoons. While the region is considered one of the regions with less carbon emission, it will push for policies that provide incentives to areas that protect their natural assets. These areas should be given priority in accessing the People's Survival Fund and other similar funding mechanisms.

02

Regional Spatial Development Framework



REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

The realization of MIMAROPA as the Destination of Choice is largely reliant on effective and efficient land use planning in the region. This will allow the regional economy to flourish as settlements are delivered from harm's way and natural resources are sustainably managed.

The MIMAROPA Regional Spatial Development Framework (RSDF) adopted the three core strategies of the NSS, namely: Concentration, Connectivity, and Vulnerability Reduction. Disaster risk reduction and climate change adaptation (DRR/CCA) principles were also integrated into the RSDF as part of the Vulnerability Reduction strategy.

The proposed five-tiered hierarchy/network of settlements in NSS and Luzon Spatial Development Framework (LSDF) was extended to the MIMAROPA RSDF, paving way for the identification of six Regional Centers in MIMAROPA that would help decongest the Metro Region. This also allowed the recommendation of appropriate Spatial Strategy for every province in MIMAROPA. The resulting urban forms for the provinces of the region were formed by linking key network of settlements through an intermodal transportation system.

Regional Profile

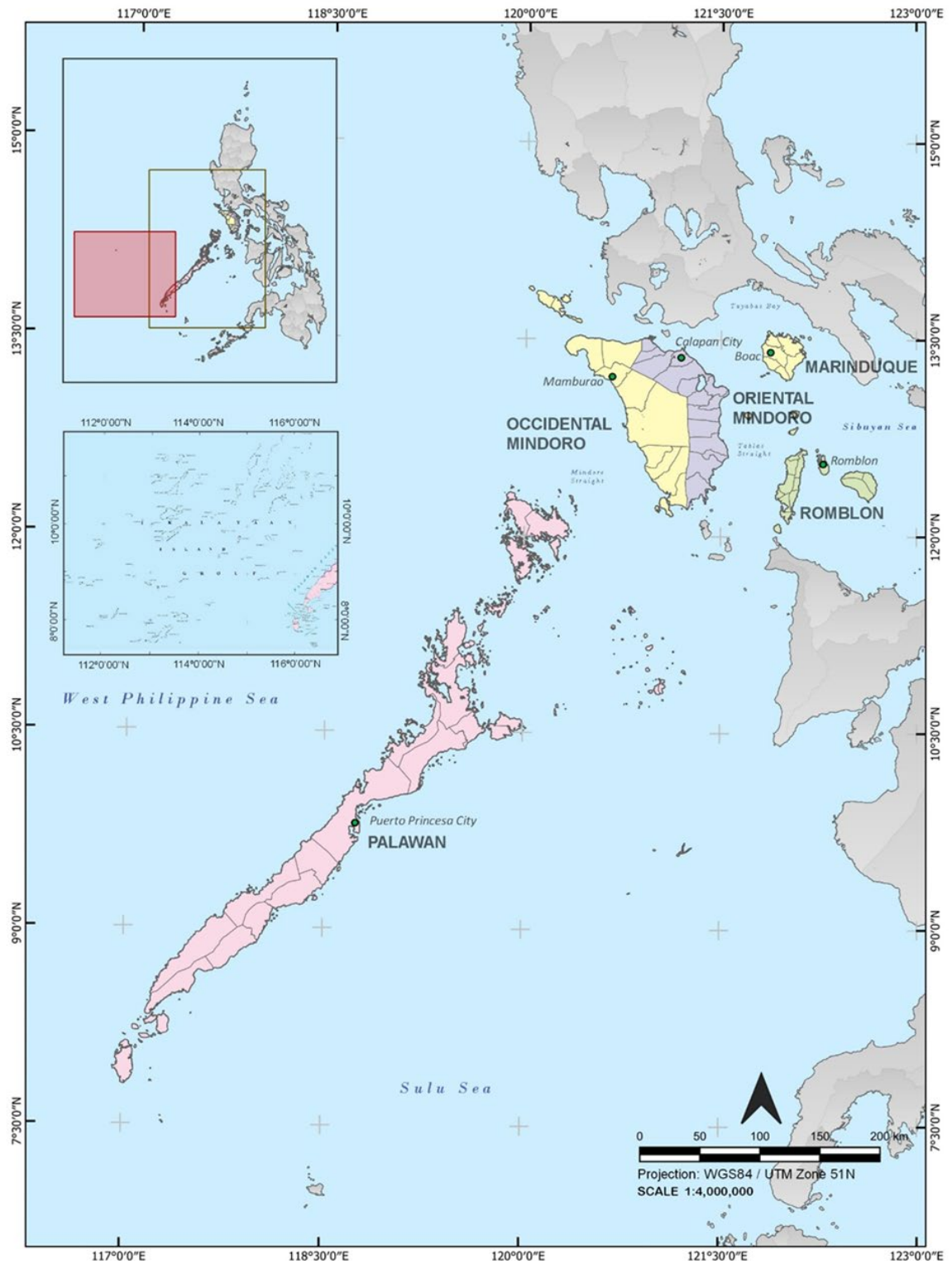
Geographic Location

The MIMAROPA region is a group of islands that lies south of CALABARZON. It is bounded by the West Philippine Sea in the West, Tayabas Bay in the North, the Sibuyan Sea in the East, and the Sulu Sea in the South.

Previously known as the Southwestern Tagalog Region, Republic Act No. 10879 also known

as the “MIMAROPA Act” established the region to be known as MIMAROPA. The same Act provided that MIMAROPA shall be composed of five provinces, namely: Mindoro Oriental, Mindoro Occidental; Marinduque; Romblon; and Palawan, and two cities: Calapan City and Puerto Princesa City. The latter is a highly urbanized city, while Calapan City was designated as MIMAROPA's regional center by virtue of Executive Order No. 682, s. 2007.

Figure 2.1 Administrative Map of the MIMAROPA Region



Generated by NEDA MIMAROPA GIS Team (PFPD)

Source: National Mapping and Resource Information Authority (NAMRIA)

Reference: The South China Sea Arbitration Award of 12 July 2016. PCA. Case No. 2013-19

Population Size and Distribution

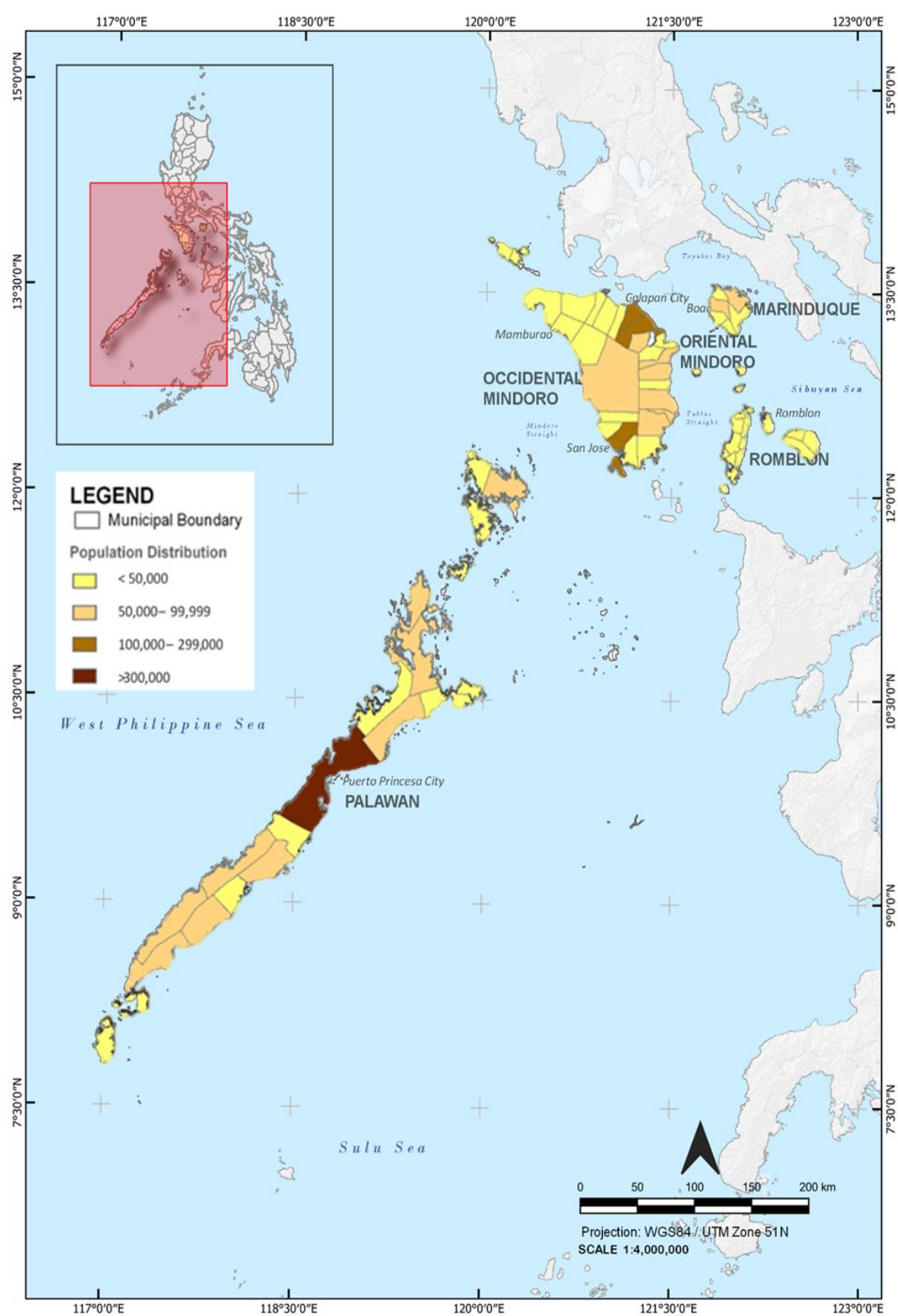
The population distribution in MIMAROPA is considerably lower than its neighboring regions. Consequently, congestion is not as apparent in the region as in other major urban areas in the country, such as Manila City and Metro Manila.

Among the five provinces of MIMAROPA, Palawan had the biggest population in 2020 with 939,594 persons. It was followed by Oriental Mindoro with 908,339 persons, Occidental Mindoro with 525,354, and Romblon with 308,985. Marinduque had the smallest population with 239,207 persons.

Among the cities and municipalities in the region, the largest in terms of population size in 2020 is Puerto Princesa City with 307,079 individuals. This was followed by the municipality of San Jose, Occidental Mindoro and Calapan City, with 153,267 and 145,786, respectively. These figures are significantly lower than the most populous areas in Manila City: Tondo - 654,220 and Sampaloc - 388,305 recorded population in 2020.

Brgy. San Pedro in Puerto Princesa City is the largest barangay in MIMAROPA in terms of population size in 2020 with 25,909 persons. It was followed by Rio Tuba in Bataraza, Palawan with 24,085 persons, and San Jose, Puerto Princesa City with 23,804.

Figure 2.2 Population Distribution by Municipality, MIMAROPA, 2020



Generated by NEDA MIMAROPA GIS Team (PFPD)
Source: NAMRIA

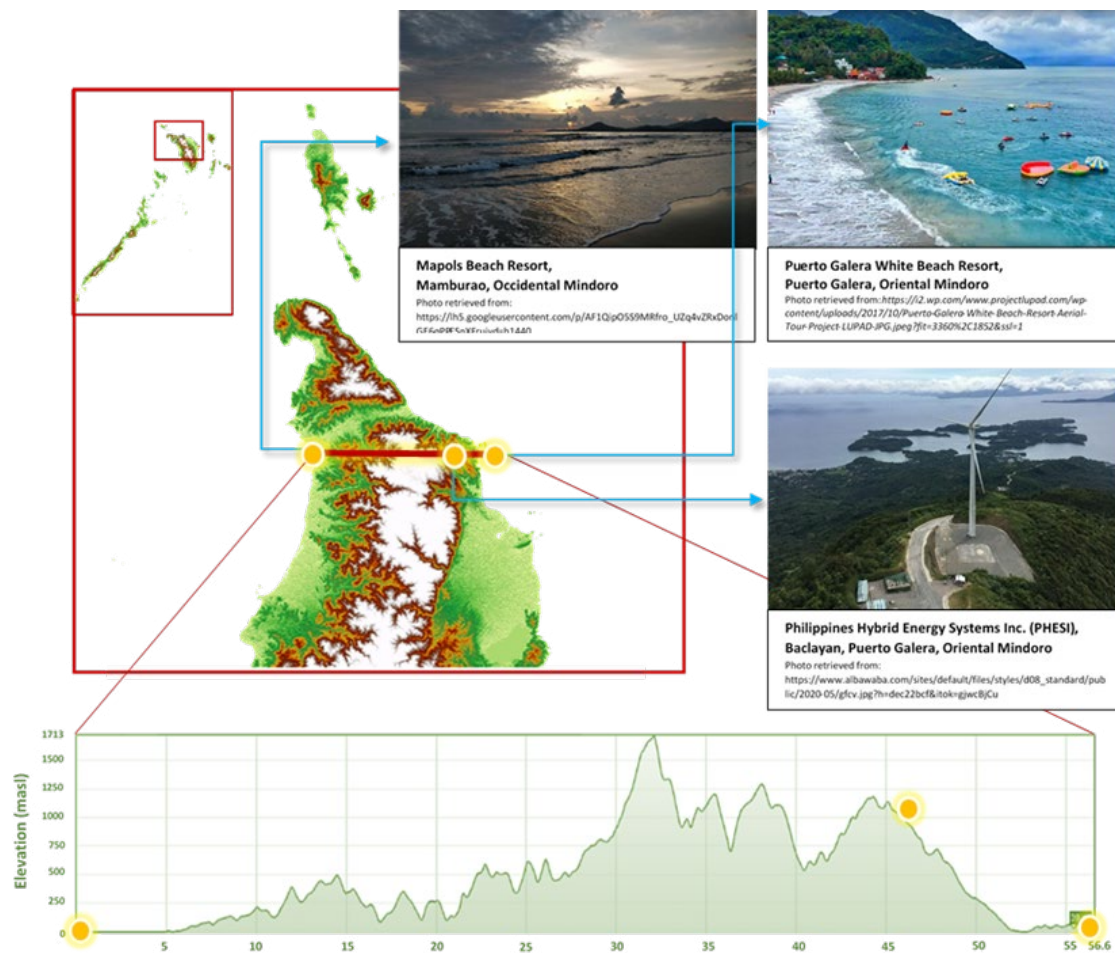
Physical Characteristics

Slope/Elevation

The MIMAROPA region is characterized by its unique topography, with slopes from low-lying and relatively flat coastal areas to hilly and rolling mountainous regions.

Mt. Halcon rises at 2,586 meters above sea level (masl), making it the highest point in the province of Oriental Mindoro. A wind power energy system operated by Philippines Hybrid Energy Systems Inc. (PHESI) rises up to 937 masl in Puerto Galera, Oriental Mindoro. Its altitude is a strategic location for a wind energy farm and provides an overlooking view of the low-lying areas, such as beach resorts. The said location may also open opportunities for tourism growth in the area.

Figure 2.3 Topographic Slice of Mindoro Island



Generated by NEDA MIMAROPA GIS Team (PPPD)

Note: Not to scale

In the region, the province of Palawan has the largest area of low-lying and gently sloping (0-9%) land, with 567,284.24 hectares or 38.84 percent of the total land area in the province. This was followed by Oriental Mindoro with a total of 186,045.33 hectares or 43.87 percent of the said province. Marinduque, having the least land area among the provinces in MIMAROPA, also has the least land area situated in gently sloping areas. These areas make up 27.18 percent of the total land area in the province.

The same trend was also observed for areas located on 30% slope and beyond. Palawan has the largest land area that falls under the >30% slope category, with 305,177.71 hectares or 45.3 percent of the region's total land area in the said slope category. However, its provincial share is only at 20.89 percent. Notably,

208,935.38 hectares of Occidental Mindoro make up a third or a total of 31.07 percent of land qualifying in the >30% category in the region. These areas are primarily found in the municipalities of Sablayan, Santa Cruz, and Abra de Ilog, among others. The said areas also make up 35.30 percent of the total land area in the province. Further, Marinduque has the least land area with extremely steep slopes in the region, but its provincial share is at 19.85 percent.

In general, more than a third or 36.01 percent of the MIMAROPA region are classified as gently sloping (0-9%). Majority of the region's land falls within the said category. This was followed by areas lying in extremely steep areas or those within 30% slope and beyond, which comprise 24.89 percent of the total land area of the region.

Table 2.1 Land Area Estimates per Slope Category by Province, MIMAROPA

PROVINCE	LAND AREA ESTIMATES PER SLOPE CATEGORY (HAS)											
	0-9%	% SHARE	>9-15%	% SHARE	>15-18%	% SHARE	>18-30%	% SHARE	>30%	% SHARE	TOTAL	% SHARE
MARINDUQUE	25,241.67	27.18	16,523.92	17.79	7,719.04	8.31	24,960.64	26.87	18,438.37	19.85	92,883.64	3.44
OCCIDENTAL MINDORO	164,863.99	27.86	61,103.42	10.32	33,319.65	5.63	123,629.53	20.89	208,935.38	35.3	591,851.97	21.9
ORIENTAL MINDORO	186,045.33	43.87	44,982.04	10.61	21,298.99	5.02	71,623.87	16.89	100,118.43	23.61	424,068.66	15.69
PALAWAN	567,284.24	38.84	197,543.97	13.52	89,233.28	6.11	301,467.61	20.64	305,177.71	20.89	1,460,706.81	54.06
ROMBLON	29,625.13	22.35	21,010.97	15.85	9,757.55	7.36	32,260.41	24.34	39,884.73	30.09	132,538.78	4.91
TOTAL	973,060.36	36.01	341,164.32	12.63	161,328.51	5.97	553,942.05	20.5	672,554.62	24.89	2,702,049.86	100

Generated by NEDA MIMAROPA GIS Team (PFPD)

Note: Percent shares are computed using the total land area of each province

Land Classification

The region has a total land area of approximately 2,745,601 hectares. 1,747,038 hectares (63.63 percent) of which are classified as Forestlands while 998,563 hectares (36.36 percent) are Alienable and Disposable (A&D) Land. Presidential Decree No. 705, s. 1975, as amended, provides that Forestlands include public forest, permanent forest or forest reserves, and forest reservations, while A&D Land are those land classified as not needed for forest purposes. A&D Land can be alienated or owned by qualified individuals and/or other interested parties.

The province of Palawan has the largest area of land classified as forestland, with a total of 1,035,926

hectares. This makes up for more than half or 69.54 percent of the total land area in the province, leaving only 30.46 percent of land classified as Alienable and Disposable Land.

The province of Occidental Mindoro has the second largest area of land classified as Forestland, with a total of 431,981 hectares. However, with a smaller total land area compared to Palawan, forestlands in Occidental Mindoro comprise 73.47 percent of the total land area in the province. Thus, only 26.53 percent of the land in the province is classified as A&D Land. On the other hand, despite having a relatively small land area, majority or 76.85 percent of lands in the province of Marinduque are classified as A&D Land.

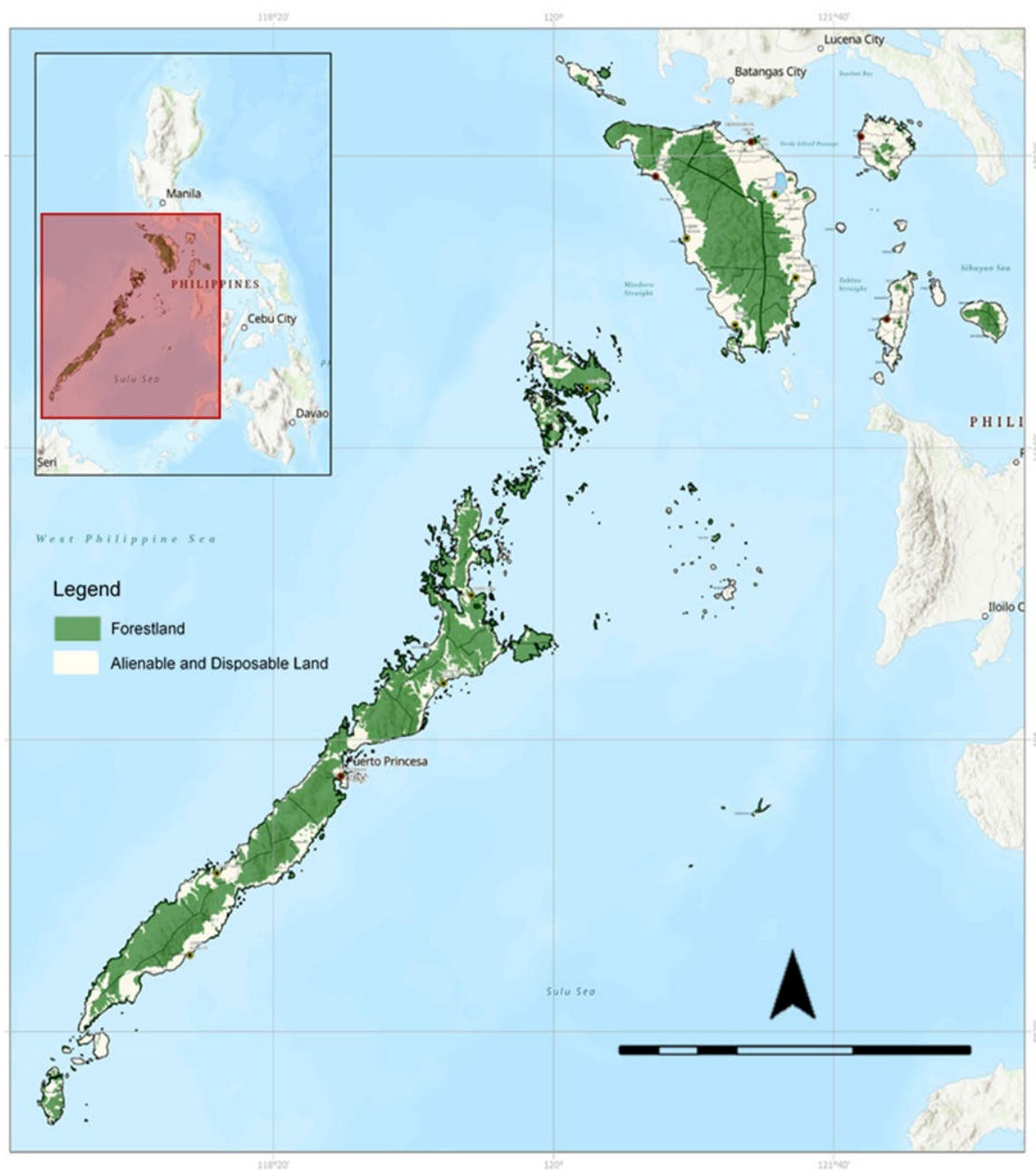
Table 2.2 Land Classification by Province, MIMAROPA

PROVINCE	LAND CLASSIFICATION (HAS), PER PROVINCE					
	FORESTLAND	% SHARE	A & D LAND	% SHARE	TOTAL	% SHARE
Marinduque	22,205	23.15	73,720	76.85	95,925	100
Occidental Mindoro	431,981	73.47	156,004	26.53	587,985	100
Oriental Mindoro	213,577	48.93	222,895	51.07	436,472	100
Palawan	1,035,926	69.54	453,700	30.46	1,489,626	100
Romblon	43,349	31.97	92,244	68.03	135,593	100
TOTAL	1,747,038	63.63	998,563	36.37	2,745,601	100

Generated by NEDA MIMAROPA GIS Team (PPPD)

Note: Percent shares are computed using the total land area of each province

Figure 2.4 Land Classification Map of the MIMAROPA Region



Source: Department of Environment and Natural Resources (DENR)

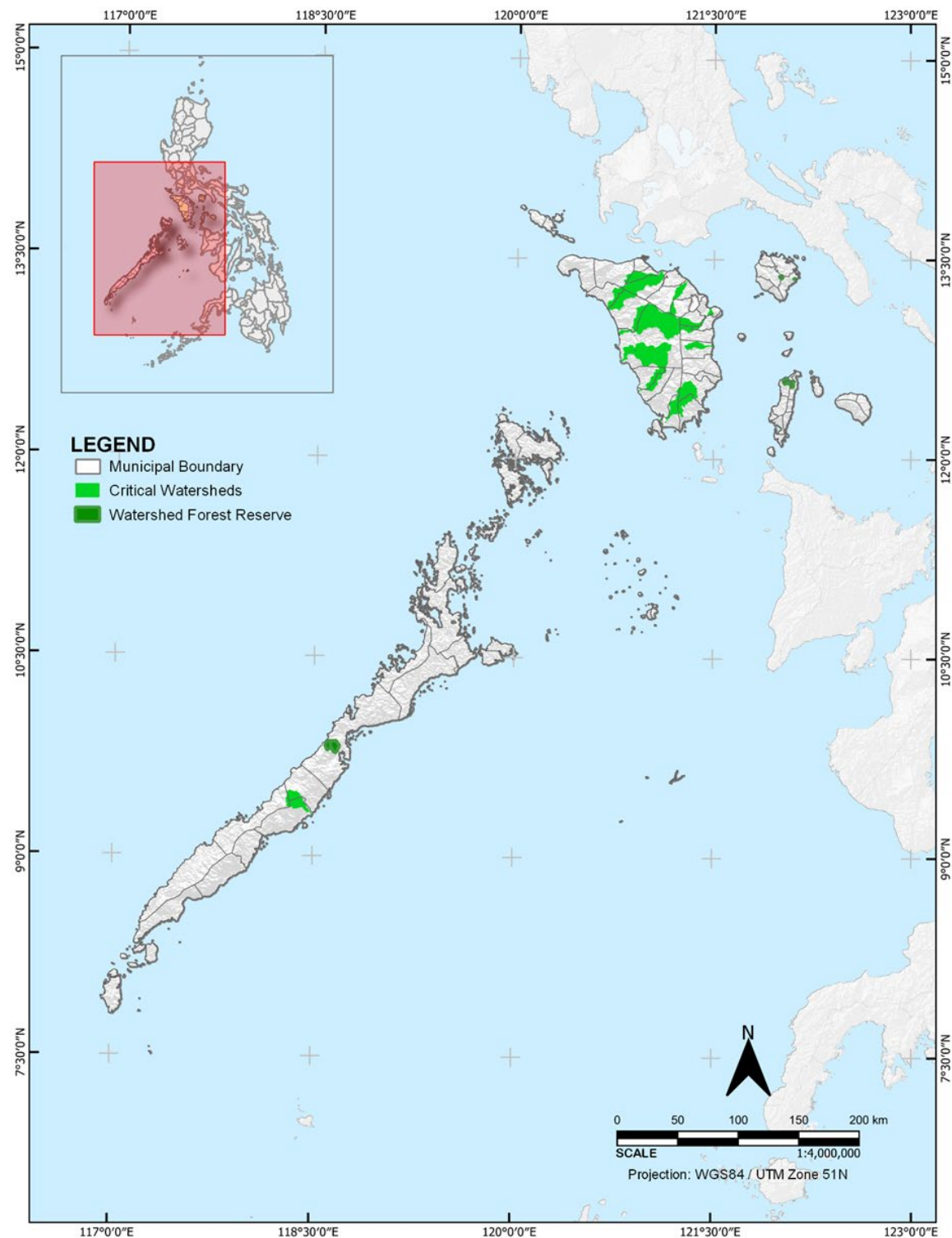
Critical Watersheds

Within the forestland are areas designated as watershed forest reserves. These are parcels of land where vegetation is maintained and conserved to ensure that watersheds are protected, especially those classified as critical watersheds.

In the region, there are a total of ten critical watersheds. One of which is the Malatgao River Watershed located in Palawan. Lumintao River

Watershed, Amnay-Patrick River Watershed, Mongpong Watershed, and Pagbahan River Watershed are located in Occidental Mindoro, while Bansud River Watershed, Catuiran-Bucayao River Watershed, and Pola River Watershed are situated in Oriental Mindoro. On the other hand, two watersheds - Mag-asawang Tubig-Mapalo River Watershed and Caguray River Watershed – traverse the provinces of Oriental Mindoro and Occidental Mindoro.

Figure 2.5 Critical Watersheds in MIMAROPA



Generated by NEDA MIMAROPA GIS Team (PFPD)
Sources: NAMRIA and DENR MIMAROPA

National Integrated Protected Areas System

The MIMAROPA Region is home to rich biodiversity and critical ecosystems which require protection from anthropogenic activities. Republic Act No. 7586 or the National Integrated Protected Areas System (NIPAS) refers to the administration of identified portions of land and water delineated based on their physical and biological significance. These areas are being managed to enhance their biological diversity and are protected against human exploitation.

To date, there are a total of 19 protected areas in the MIMAROPA Region, with classifications such as initial component, proclaimed, and legislated. Ten of these protected areas are located in Palawan, five in Occidental Mindoro, two in Marinduque, and one each in Oriental Mindoro and Romblon. All of these roughly cover a total of 838,643 hectares of both land and sea.

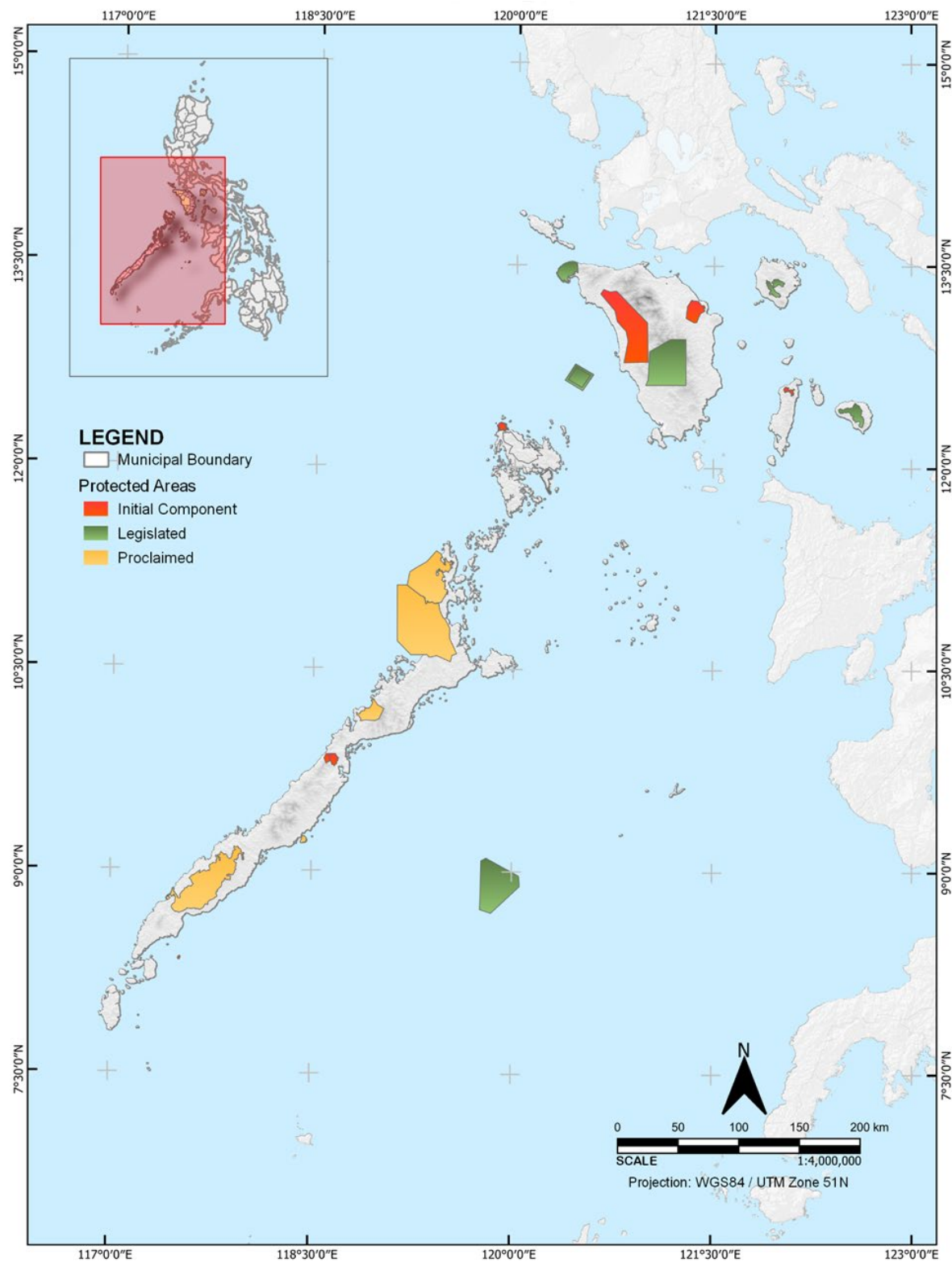
Table 2.3 Protected Areas, by Province, MIMAROPA

NAME	PROCLAMATION NUMBER	DATE	AREA (HA)	STATUS	PROVINCE
Puerto Princesa Subterranean River National Park	Proclamation No. 212	November 12, 1999	22,202.00	Proclaimed	Palawan
Mt. Mantalingahan Protected Landscape	Proclamation No. 1815	June 23, 2009	120,457.00	Proclaimed	Palawan
Ursula Island Birds Sanctuary	Proclamation No. 14	April 30, 1960	396.00	Initial Component	Palawan
Calauit Game Preserve and Wildlife Sanctuary	Proclamation No. 1578	August 31, 1976	3,400.00	Initial Component	Palawan
Tubbataha Reef National Marine Park	Proclamation No. 306	August 11, 1988	33,200.00	Legislated	Palawan
Coron Island Protected Landscape & Seascape	Tagbanawa Foundation of Coron Island (CFSA)	1990	7,748.00		Palawan
Palawan Flora and Fauna Watershed Reserve (I)	Proclamation No. 2221	July 14, 1982	4,776.00	Initial Component	Palawan
Palawan Flora and Fauna Watershed Reserve (II)			2,831.00		
Mt. Calavite Wildlife Sanctuary	Proclamation No. 292 and RA No. 11038	April 23, 2000 and August 01, 2018	18,172.69	Legislated	Occidental Mindoro
CALSANAG Watershed Forest Reserve	Proclamation No. 2186	April 29, 1982	2,670.00	Initial Component	Romblon
Francis Burton Harrison Game Refuge and Bird Sanctuary	Proclamation No. 09	January 28, 1920	123,000.00	Initial Component	Occidental Mindoro
Busuanga Ranch Pasture Reserve	Proclamation No. 1387	February 13, 1975	40,000.00		Palawan
Marinduque Wildlife Sanctuary	Proclamation No. 696	August 17, 2004	8,827.96	Legislated	Marinduque
Mts. Iglit-Baco National Park	Proclamation No. 557 and RA No. 11038	May 8, 1969 and August 01, 2018	106,655.62	Legislated	Occidental Mindoro
Mt. Guiting-Guiting Natural Park	Proclamation No. 246 and RA No. 11038	February 20, 1996 and August 01, 2018	15,515.22	Legislated	Romblon
Apo Reef Natural Park	Proclamation No. 868 and RA No. 11038	September 06, 1996 and August 01, 2018	15,799.23	Legislated	Occidental Mindoro

NAME	PROCLAMATION NUMBER	DATE	AREA (HA)	STATUS	PROVINCE
Naujan Lake National Park	Proclamation No. 335	January 25, 1968	21,655.00	Initial Component	Oriental Mindoro
El Nido-Taytay Managed Resource Protected Area	Proclamation No. 32	October 08, 1998	89,134.76	Proclaimed	Palawan
Malampaya Sound Protected Landscape and Seascape	Proclamation No. 342	July 12, 2000	200,115.00	Proclaimed	Palawan
Rasa Island Wildlife Sanctuary	Proclamation No. 1000	February 15, 2006	1,983.00	Proclaimed	Palawan
Torrijos Watershed Forest Reserve	Proclamation No. 463	April 06, 1932	105.00	Initial Component	Marinduque

Source: DENR MIMAROPA

Figure 2.6 Protected Areas in MIMAROPA, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PFPD)
Sources: NAMRIA and DENR MIMAROPA

Land Cover

MIMAROPA's total built-up area accounts for 1.35 percent of its total land area. The open forest represents the largest fraction of the total land area of the region, which was recorded at 28.11 percent or 771,672 hectares.

This was followed by brush/shrubs and agricultural land with 26.39 percent and 25.58 percent share, respectively. On the other hand, marshland/swamp recorded the smallest fraction of land in the region with only 0.02 percent or 683 hectares.

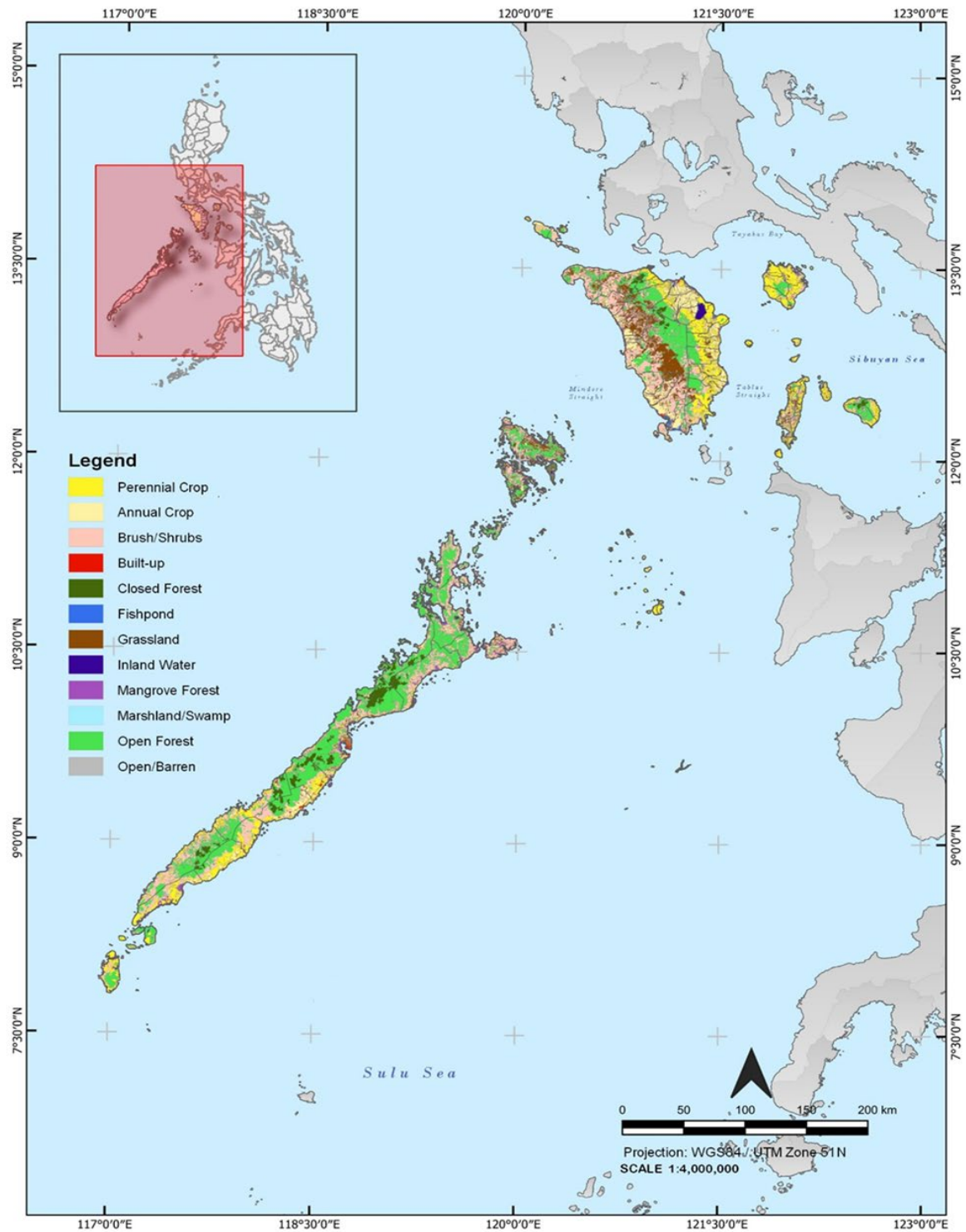
Table 2.4 Land Cover, MIMAROPA, 2015

LAND COVER (2015)	AREA (HAS)	PERCENT SHARE
Agricultural Land	702,428	25.58
Built-up	37,165	1.35
Brush/Shrubs	724,667	26.39
Closed Forest	110,592	4.03
Fishpond	10,795	0.39
Grassland	218,936	7.97
Inland Water	33,192	1.21
Mangrove Forest	68,673	2.5
Marshland/Swamp	683	0.02
Open Forest	771,672	28.11
Open/Barren	13,001	0.47
Others	53,796	1.96
Total	2,745,601	100

Generated by NEDA MIMAROPA GIS Team (PFPD)

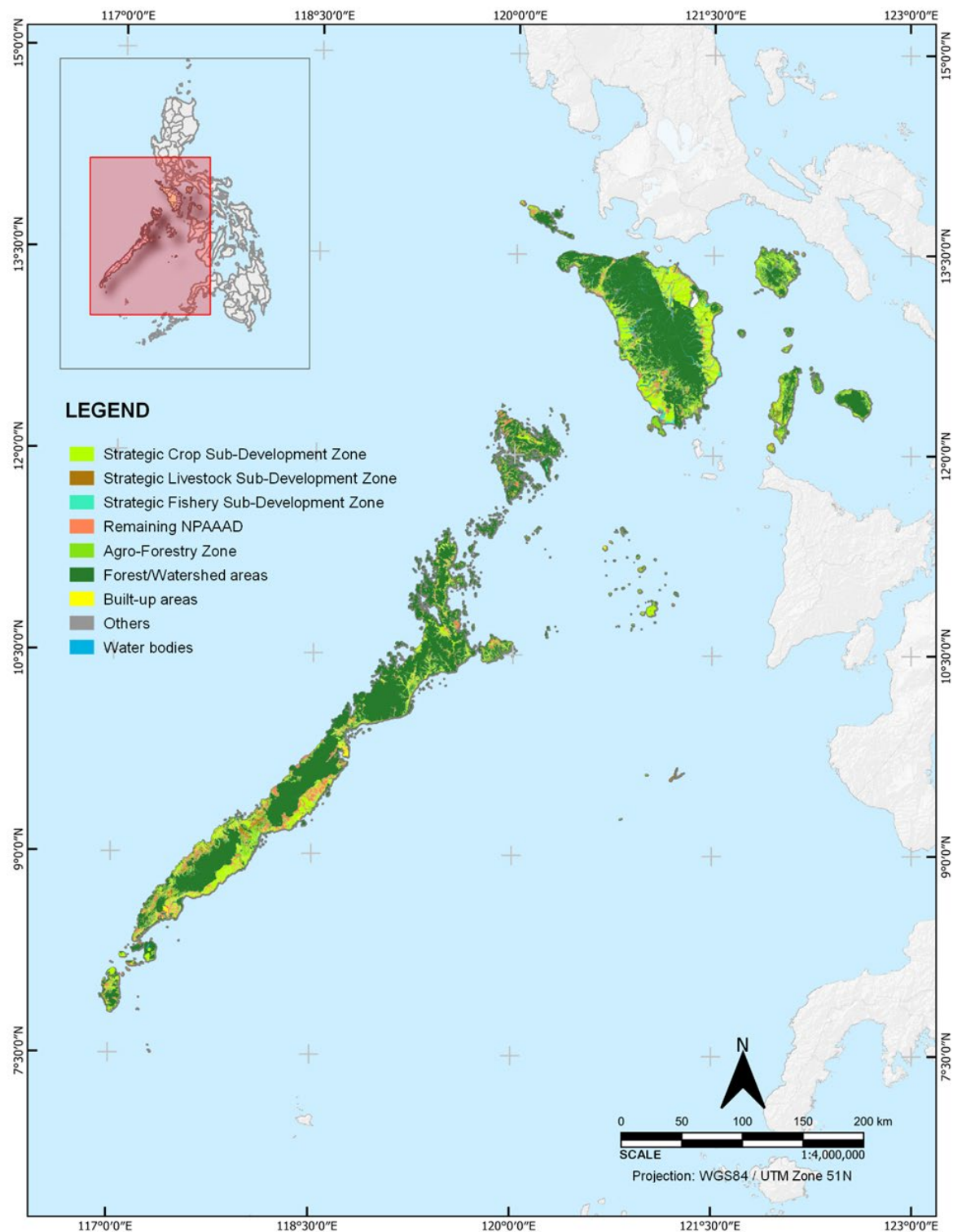
Source: DENR MIMAROPA

Figure 2.7 Land Cover Map, MIMAROPA, 2015



Generated by NEDA MIMAROPA GIS Team (PFPD)
Source: NAMRIA

Figure 2.8 Strategic Agricultural and Fishery Development Zones, MIMAROPA, 2020



Generated by NEDA MIMAROPA GIS Team (PFPD)

Sources: NAMRIA and Bureau of Soils and Water Management (BSWM)

Regional Spatial Framework

The Regional Spatial Framework of MIMAROPA was patterned after the LSDF. The LSDF is a tool that provides the direction of land use and other developmental efforts in the Luzon Island group, and is composed of three main strategies: Concentration, Connectivity, and Vulnerability Reduction. The said strategies were also adopted for the Regional Spatial Framework of MIMAROPA.

Concentration/Urban Agglomeration

Challenges on incomplete and outdated cadastral data have been a long-standing national matter. On top of this, the MIMAROPA Region faces issues and challenges that are exclusive to the region. The legislation of Republic Act No. 8371, a law that seeks to uphold the rights of IPs, has posed challenges on land development. In particular, Ancestral Domain Claims (CADT/Cs) in the region extend outside the forestlands. Thus, alienable and disposable land becomes even scarcer as a resource as conflicted lands/areas cannot be utilized pending an official verdict from the court.

Unnecessary land conversion from agricultural to commercial/residential use may also be detrimental to the future of land use in the region. These gaps put off local implementers from efficiently managing and allocating land resources.

Further, pending legislation of the National Land Use Act (NALUA), various laws on land use and its implementation schemes remain sectoral. This worsens issues on land use planning in the country. The said Act could also address challenges in climate crisis mitigation. However, climate crisis management in the country, particularly in the MIMAROPA region, continues to face limitations due to the lack of appropriate policies that would guide on-ground efforts. Long-term planning and review of sustainable land use at all levels of government are necessary to ensure ethical planning and protect the country's land and water resources.

Concentration/Urban Agglomeration as a strategy for development is crucial in boosting growth and development in the region. The principles of densification, compaction, and smart growth are all necessary to ensure that urban development satisfies key land use concepts and sustainable development.

Five-tiered Hierarchy of Settlements

The spatial structure of settlements in MIMAROPA is a five-tiered hierarchy that follows the principle of concentration/urban agglomeration. Areas of large settlements, in terms of population, are positioned in the upper tiers of the urban hierarchy while areas of smaller settlements are assigned to lower tiers. Areas with strategic roles in the economy, such as: i) provincial capitals (i.e., Mamburao in Occidental Mindoro, Boac in Marinduque, and Romblon in Romblon) and ii) city (Puerto Princesa City in Palawan) are also placed in upper tiers regardless of population size.

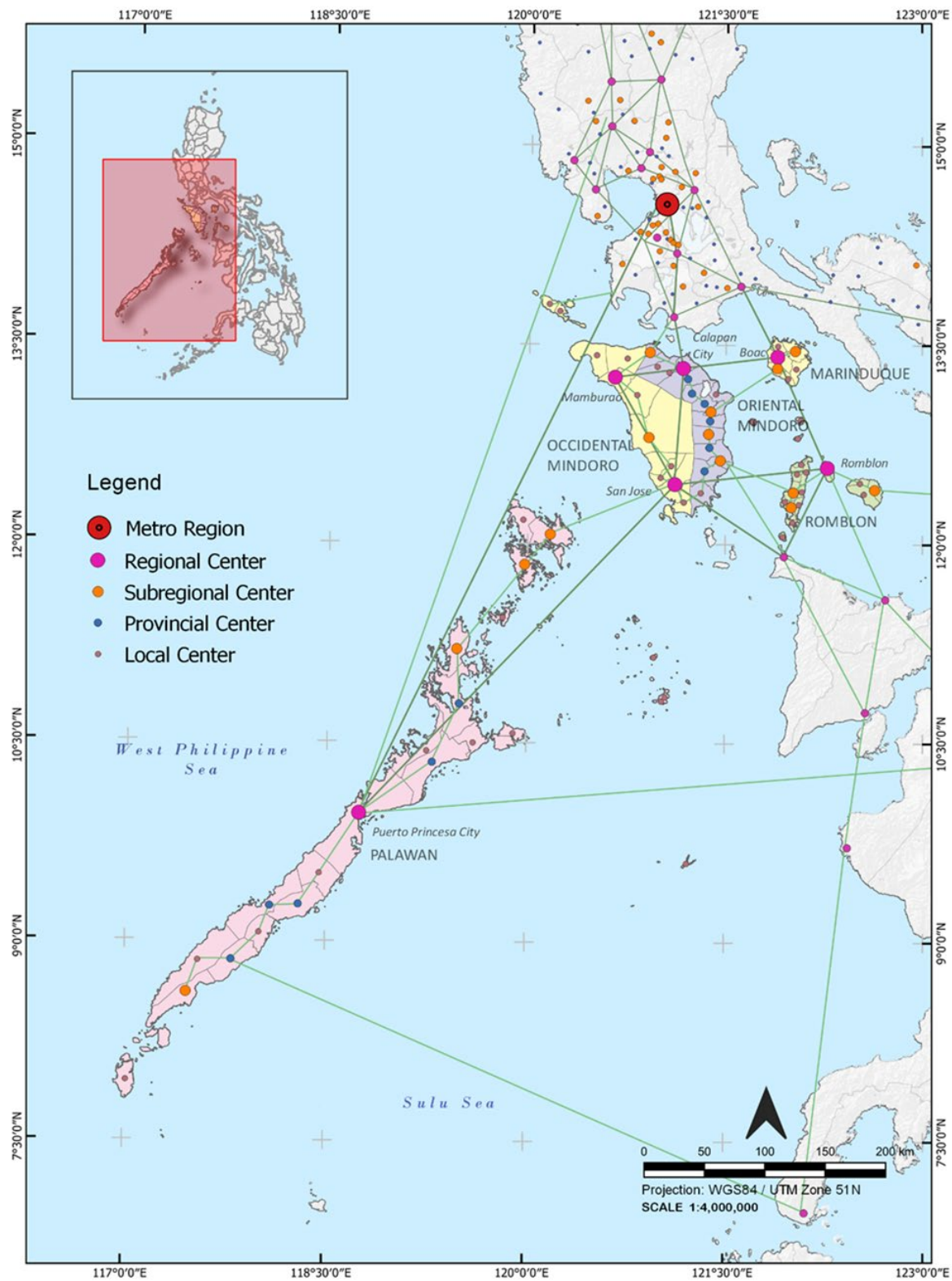
Following the principle of a two-tiered hierarchy, Metro Manila will remain as the primary metropolitan center. All the other centers outside it are classified as i) Regional Center, ii) Sub-regional Center, iii) Provincial Center, and iv) Local Center. The primary goal of the said strategy is to decongest Metro Manila and distribute the urban services among its neighboring centers depending on their designated hierarchy, such that Regional Centers are prioritized, followed by sub-regional centers, then provincial centers, and lastly – local centers. This will result in the emergence of new urban centers outside Metro Manila.

Calapan City is located about 102 kilometers south of Metro Manila. In terms of Metro Manila's sphere of influence, it is the city in the region closest to the Metro Region, almost qualifying in the 100-km proximity radius of the said area. It is therefore a strategic location to assist in the decongestion of Metro Manila. This is also consistent with its designation as MIMAROPA's Regional Government Center, by virtue of EO 682, s. 2007.

Table 2.5 Five-Tiered Hierarchy of Settlements, MIMAROPA, 2023-2028

REGIONAL CENTER (6)	SUB-REGIONAL CENTER (14)	PROVINCIAL CENTER (11)	LOCAL CENTER (41)
Boac, Marinduque	Bansud, Oriental Mindoro	Bongabong, Oriental Mindoro	Aborlan, Palawan
Calapan City, Oriental Mindoro	Bataraza, Palawan	Brooke's Point, Palawan	Abra de Ilog, Occidental Mindoro
Mamburao, Occidental Mindoro	Cajidiocan, Romblon	Gloria Oriental, Mindoro	Agutaya, Palawan
Puerto Princesa City, Palawan	Coron, Palawan	Mansalay, Oriental Mindoro	Alcantara, Romblon
Romblon, Romblon	Culion , Palawan	Narra, Palawan	Araceli, Palawan
San Jose, Occidental Mindoro	El Nido, Palawan	Naujan, Oriental Mindoro	Baco, Oriental Mindoro
	Gasan , Marinduque	Quezon, Palawan	Balabac, Palawan
	Looc, Romblon	Roxas, Palawan	Banton, Romblon
	Odiongan, Romblon	Socorro, Oriental Mindoro	Buenavista, Marinduque
	Pinamalayan, Oriental Mindoro	Taytay, Palawan	Bulalacao, Oriental Mindoro
	Puerto Galera, Oriental Mindoro	Victoria, Oriental Mindoro	Busuanga, Palawan
	Roxas, Oriental Mindoro		Cagayancillo , Palawan
	Sablayan, Occidental Mindoro		Calatrava, Romblon
	Santa Cruz, Marinduque		Calintaan, Occidental Mindoro
			Concepcion, Romblon
			Corcuera, Romblon
			Cuyo, Palawan
			Dumaran, Palawan
			Ferrol, Romblon
			Linapacan, Palawan
			Looc, Romblon
			Lubang, Occidental Mindoro
			Magdiwang, Romblon
			Magsaysay, Occidental Mindoro
			Magsaysay, Palawan
			Mogpog, Maridnuque
			Paluan, Occidental Mindoro
			Pola, Oriental Mindoro
			Rizal, Occidental Mindoro
			Rizal, Palawan
			San Agustin, Romblon
			San Andres, Romblon
			San Fernando, Romblon
			San Jose, Romblon
			San Teodoro, Occidental Mindoro
			San Vicente, Palawan
			Santa Cruz, Occidental Mindoro
			Santa Fe, Romblon
			Santa Maria, Romblon
			Sofroño Española, Palawan
			Torrijos, Marinduque

Figure 2.9 Hierarchy of Settlements in the MIMAROPA Region, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PFPD)

Sources: NAMRIA and Bureau of Soils and Water Management (BSWM)

Settlements Development Framework

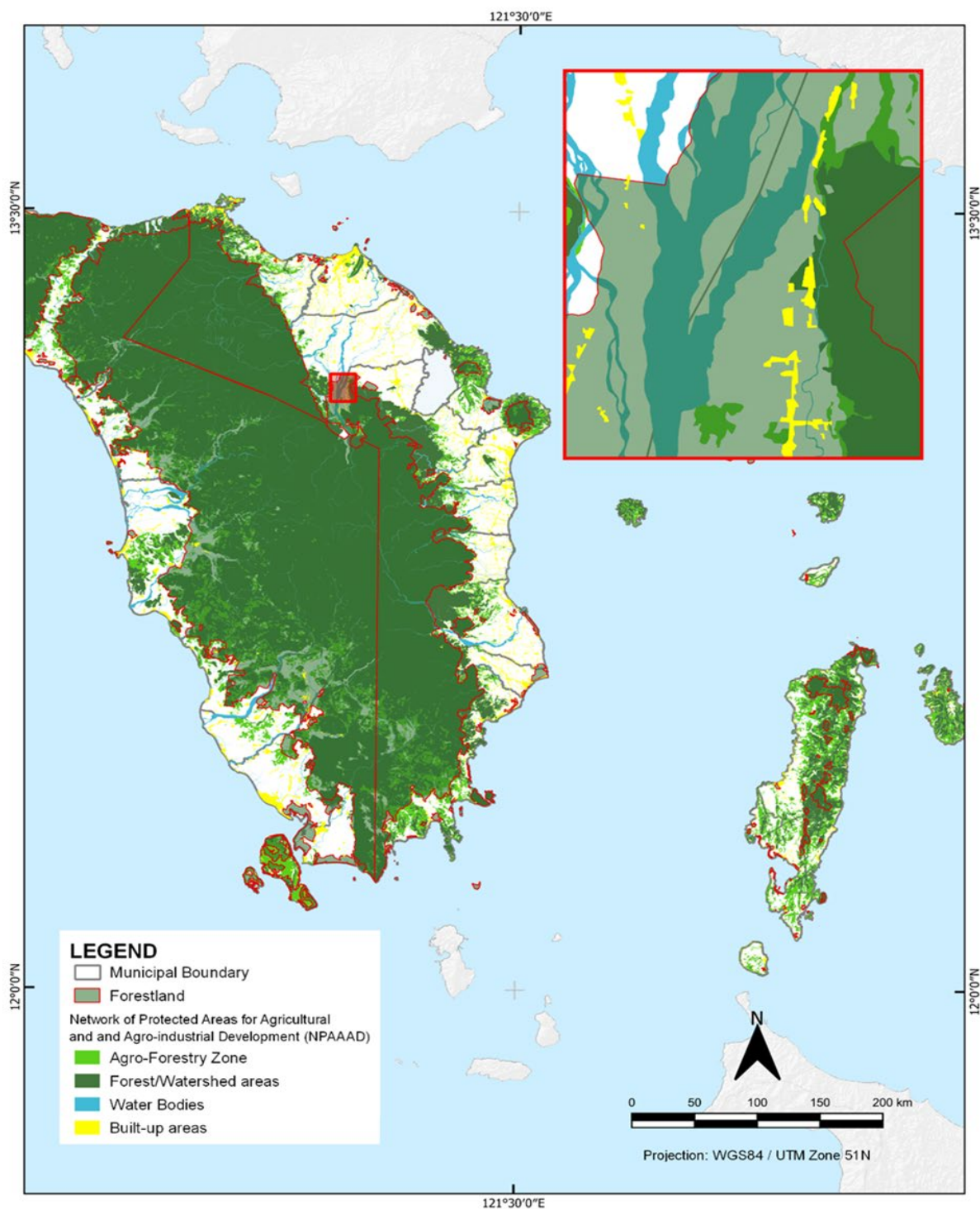
The goal of the settlements development and suitability framework is to ultimately deliver settlements from harm's way. To realize this, it is imperative to identify which areas are prone to life-threatening hazards and/or located within areas that are otherwise identified as A&D, or simply known as areas "where not to build".

Further, for a settlement to prosper, it is necessary to incentivize areas close to built-up areas and roads, as well as those with higher number of urban services (reflected in the hierarchy of settlements). This provides an advantage to areas that follow the principles of urban agglomeration, and directs settlements "where to build".

Development Constraints. Development constraints were divided into two main groups - geologic/hydrometeorologic hazards (GHH) and areas restricted to urban development (ARTUD). This basically identifies "where not to build". The GHH is comprised of hazards such as rain-induced landslides, flooding, and steep slopes. ARTUD, on the other hand, is comprised of alienable and disposable land and forestland – and SAFDZ.

Without proper and strategic planning, settlements will continue to grow in ARTUD, especially in forestlands. Currently, there are encroachments on forestlands as exhibited by built-up areas that fall within forestland. These areas may be found in the municipality of Victoria in Oriental Mindoro, Mamburao in Occidental Mindoro, among others.

Figure 2.10 Overlay Map of Areas Restricted to Urban Development in the MIMAROPA Region



Generated by NEDA MIMAROPA GIS Team (PFPD)
Sources: NAMRIA, DENR MIMAROPA, and BSWM

Settlement Suitability. Aside from development constraints, proximity to certain areas and urban agglomeration was also considered in the sieve mapping framework. These criteria were incorporated under settlement suitability (“where to build”). Specifically, settlement suitability areas in the region are areas that qualify under the following parameters: a) proximity to built-up areas; b) proximity to roads; and, c) hierarchy of settlements (regional center, sub-regional center, provincial center, and local center).

Areas within or close to built-up areas and roads were assigned with lower values. Thus, higher suitability. Higher tiers in the hierarchy of

settlements were also assigned with lower values, which means that regional center is preferred over the sub-regional center, and the latter is preferred over the rank that it precedes.

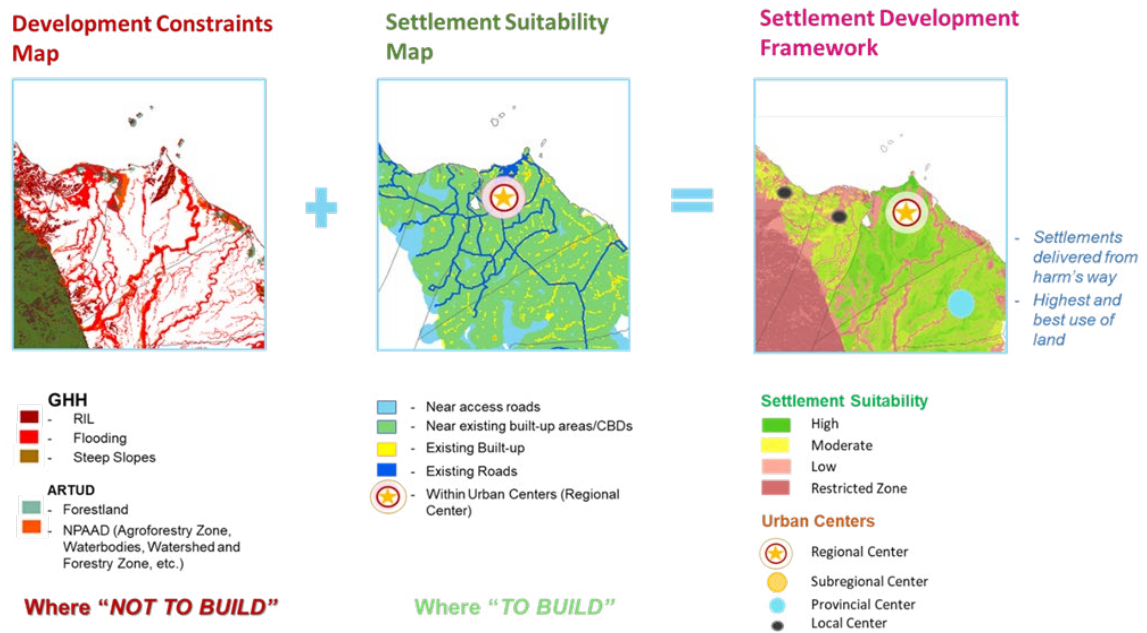
This provides an advantage to municipalities/cities that were designated as regional and sub-regional centers. Areas that were identified with higher suitability based on the parameters include Puerto Princesa City in Palawan, Calapan City in Oriental Mindoro, Mamburao, and San Jose in Occidental Mindoro, Boac in Marinduque, and the municipality of Romblon in the province of Romblon.

Table 2.6 Settlements Framework Parameters by Weight, MIMAROPA

Criteria	Weight (%)	Suitability Scores			
		1	2	3	100
Development Constraints (0.625)					
Rain-Induced Landslide	12.50				
Not Susceptible		1			
Low			2		
Moderate			2		
High				3	
Very High					100
Flooding	12.50				
Not Susceptible		1			
Low			2		
Moderate				3	
High					100
Slope	12.50				
0-9%		1			
9-15%			2		
15-18%				3	
18-30%				3	
Above 30%					100
Land Classification	12.50				
Alienable and Disposable		1			
National Park					100
Timberlands					100
Unclassified Public Forest					100
Agri Production Lands	12.50				
Built-up		1			
Marginal Agri Lands and NPAAAD			2		
Strategic Livestock				3	
SAFDZ / Water Bodies / Agro-Forestry Zone / Strategic Fishery					100
Development Zone / Watershed and Forestry Zone					100
Subtotal Weight	62.5				
Settlement Suitability (0.375)					
Road Access	12.50				
Within 1 km		1			
1-3 kms			2		
beyond 3 kms				3	
Existing Built-Up	12.50				
Within 1 km		1			
1-3 kms			2		
beyond 3 kms				3	
Five-Tier Hierarchy of Settlements	12.50				
Regional Center		1			
Sub-Regional Center			2		
Provincial Center			2		
Local Center				3	
Subtotal Weight	37.5				
Total Weight	100.0				

Source: NEDA MIMAROPA

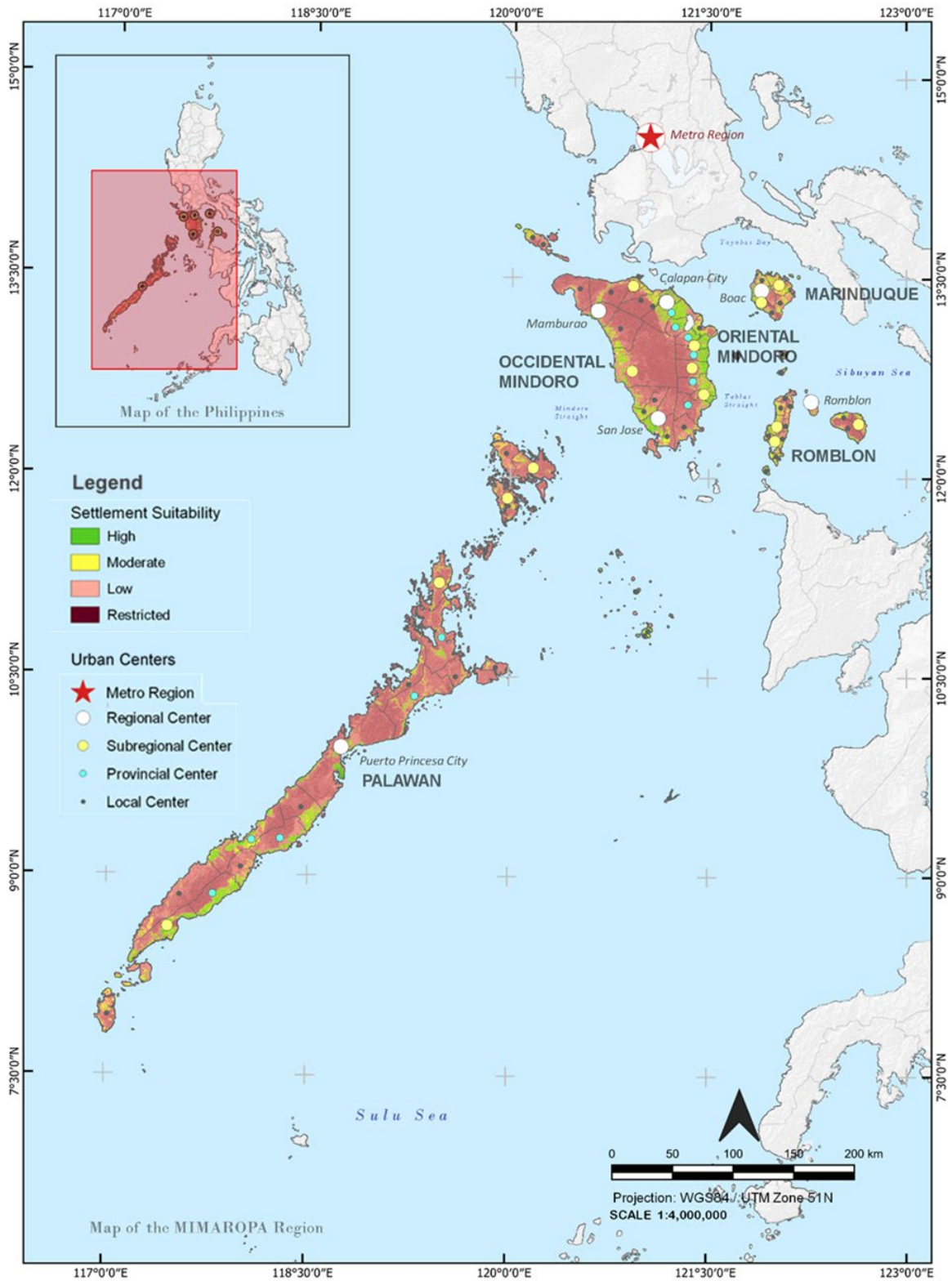
Figure 2.11 Sieve Mapping Parameters for the Formulation of Regional Settlements Framework, 2023-2028



Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

Settlements Development Framework. The final sieve mapping revealed that highly suitable areas for development are found in the following municipalities/cities: Puerto Princesa City in Palawan, Calapan City in Oriental Mindoro, Mamburao and San Jose in Occidental Mindoro, Romblon in Romblon, and Boac in Marinduque.

Figure 2.12 Settlements Development Framework for MIMAROPA Region, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PFPD)

Areas with steep slopes and prone to various hazards in these municipalities were classified as low-suitability areas. This means that settlement development is possible, although not encouraged. Engineering and environmental measures must be observed to ensure public safety in these areas.

On the other hand, those that are within forestland and areas allocated for strategic protection of the watershed, fisheries, etc. were automatically assigned as restricted zones. Development in these areas are highly discouraged and prohibited by Republic Act No. 10601 or “An Act Promoting Agricultural and Fisheries Mechanization Development in the Country” and Republic Act No. 2874 or “The Public Land Act.”

Proposed Spatial Strategy

The proposed spatial strategy for Occidental Mindoro, Oriental Mindoro, Romblon, and Palawan generally follows the Central-Nodal Urban Form (HLURB, 1997).

In Oriental Mindoro, Calapan City will provide the central services and urban functions to support the emerging development nodes. The urban growth

nodes are the municipalities of Puerto Galera, Pinamalayan, Roxas, and Bansud.

On the other hand, in Occidental Mindoro, the three growth nodes are the municipalities of Mamburao, San Jose, and Sablayan, where Mamburao will provide the central services in the province.

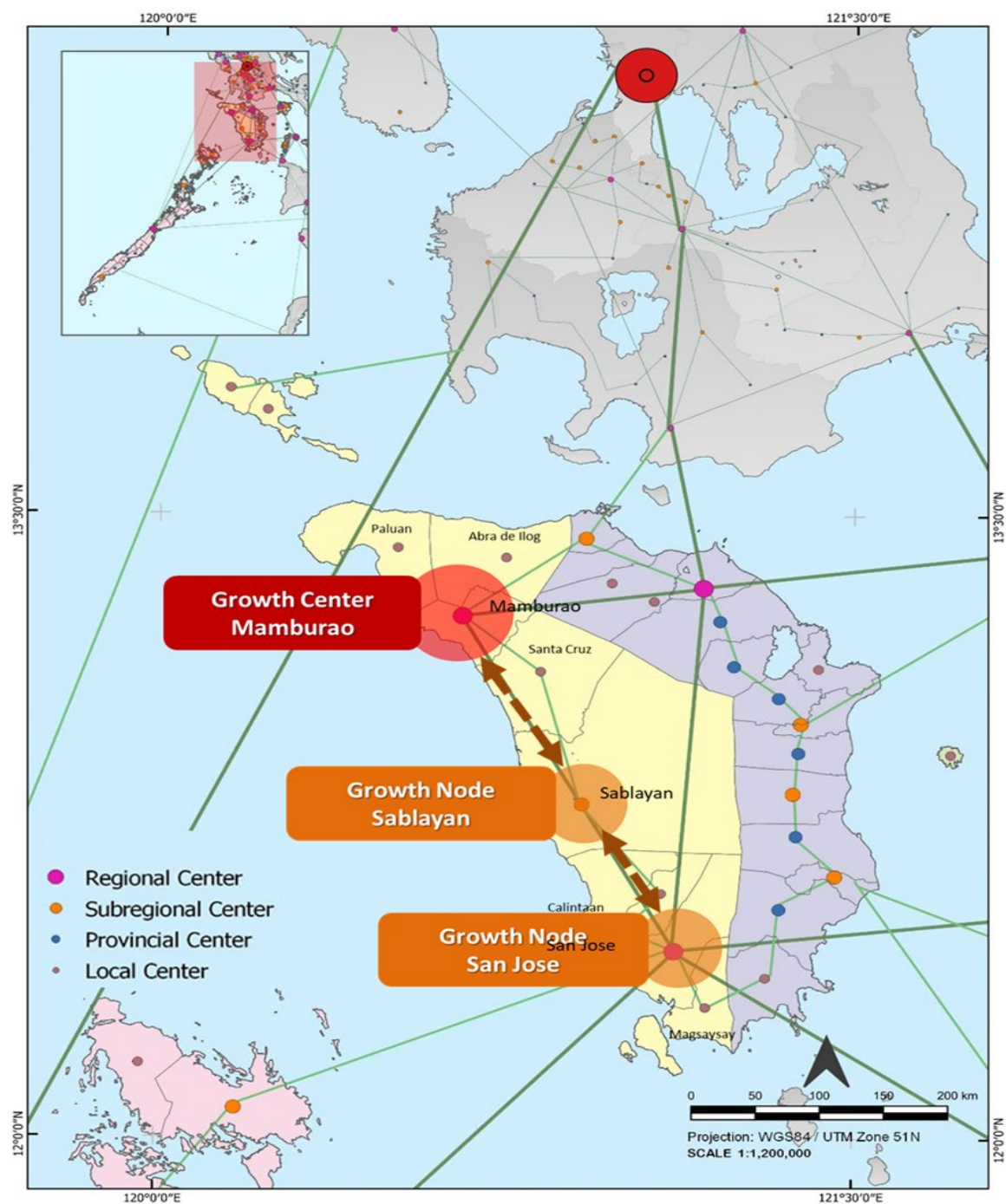
In the province of Romblon, the municipality of Romblon will provide central services and urban functions. Other urban growth nodes are the municipalities of Odiongan, Cajidiocan, and Look.

In Palawan, the municipalities of Coron, El Nido, and Bataraza will be the growth nodes supported by the main growth center, Puerto Princesa City.

Marinduque is the sole province in the region that will follow a radial-circumferential urban form. Its main growth center is the municipality of Boac and the other growth nodes are Sta. Cruz and Gasan.

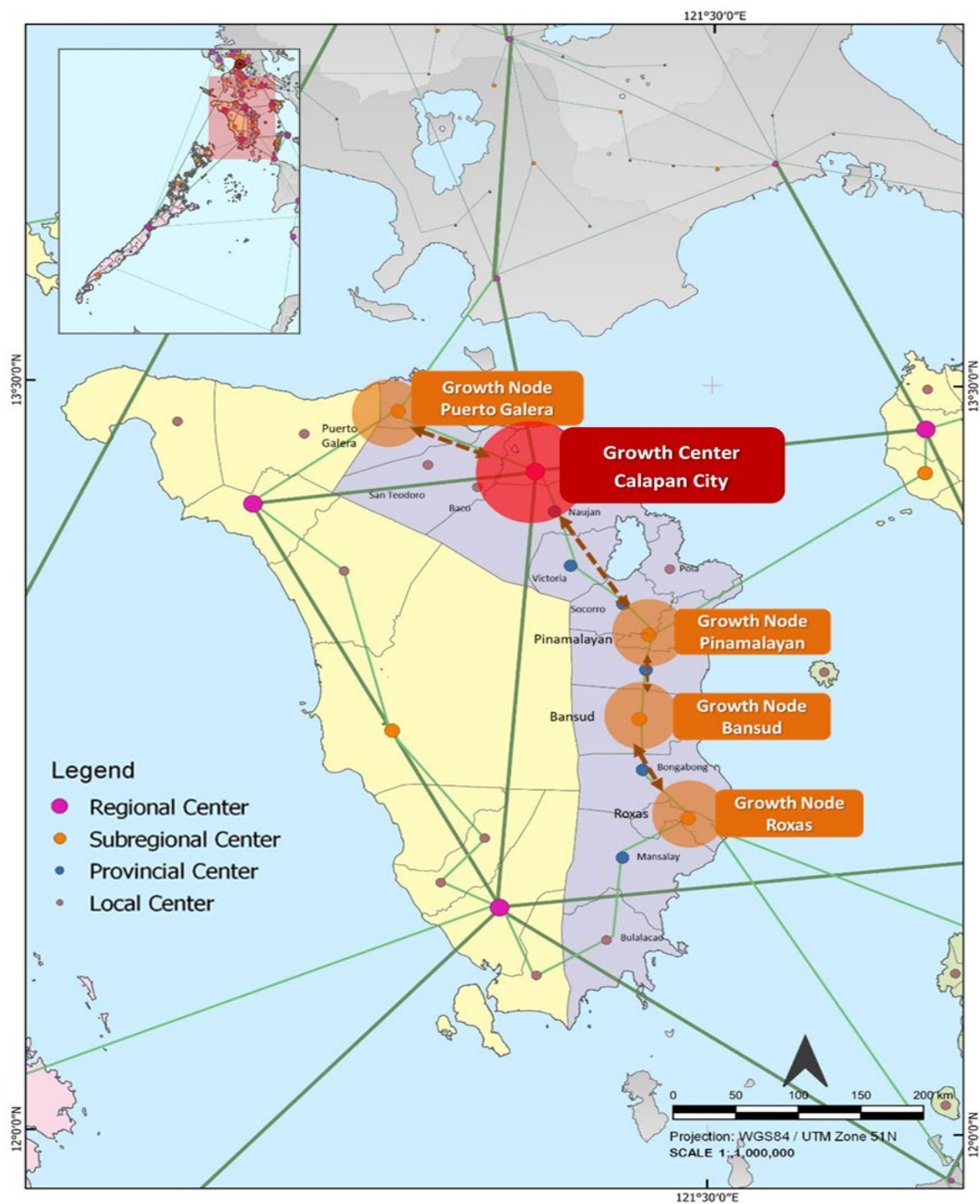
Growth in these identified areas and the entire province will be driven by connectivity infrastructures, urban agglomeration measures, and vulnerability reduction programs consistent with the Regional Spatial Strategy.

Figure 2.13 Proposed Spatial Strategy of Occidental Mindoro, 2023-2028



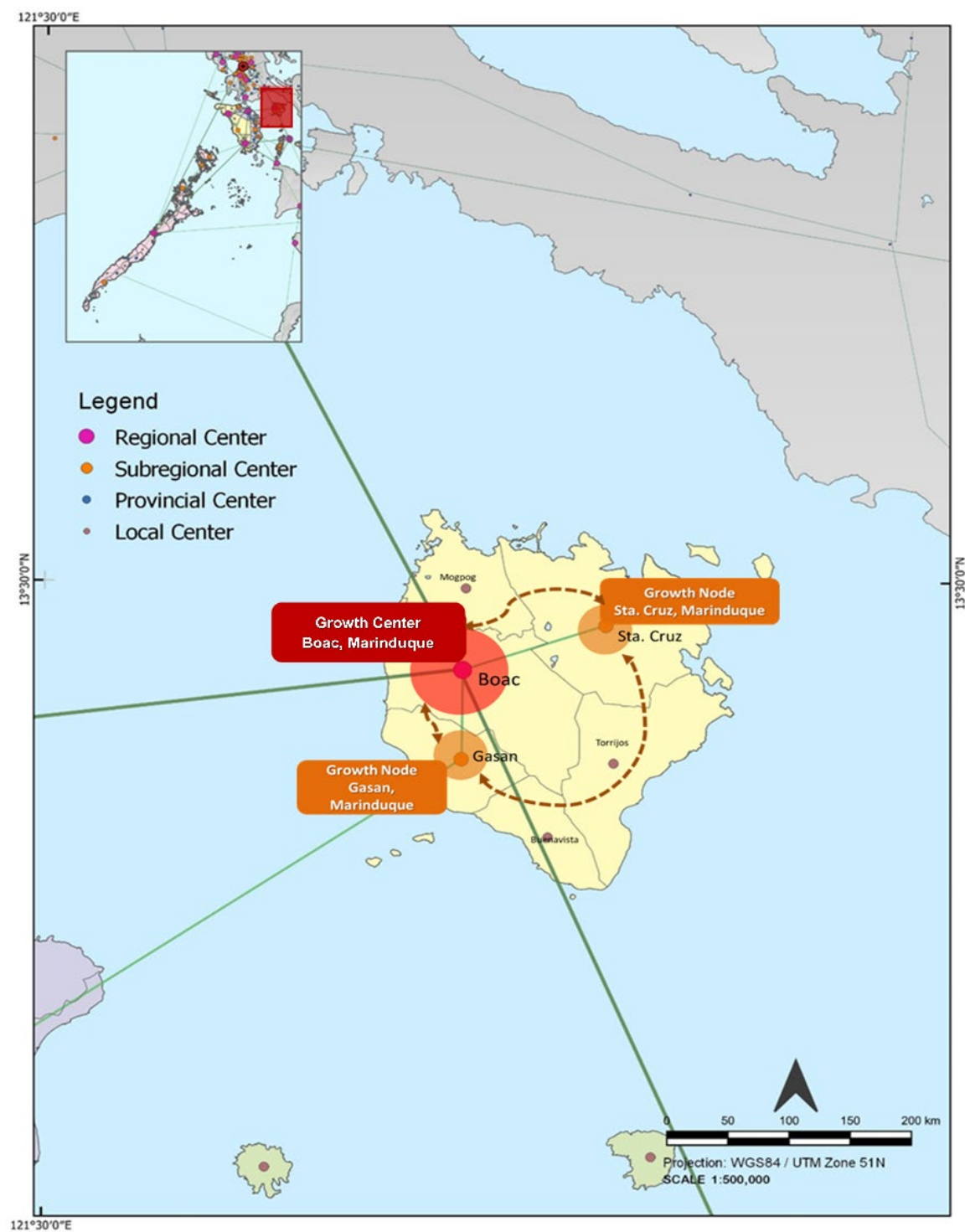
Generated by NEDA MIMAROPA GIS Team (PFPD)

Figure 2.14 Proposed Spatial Strategy of Oriental Mindoro, 2023-2028



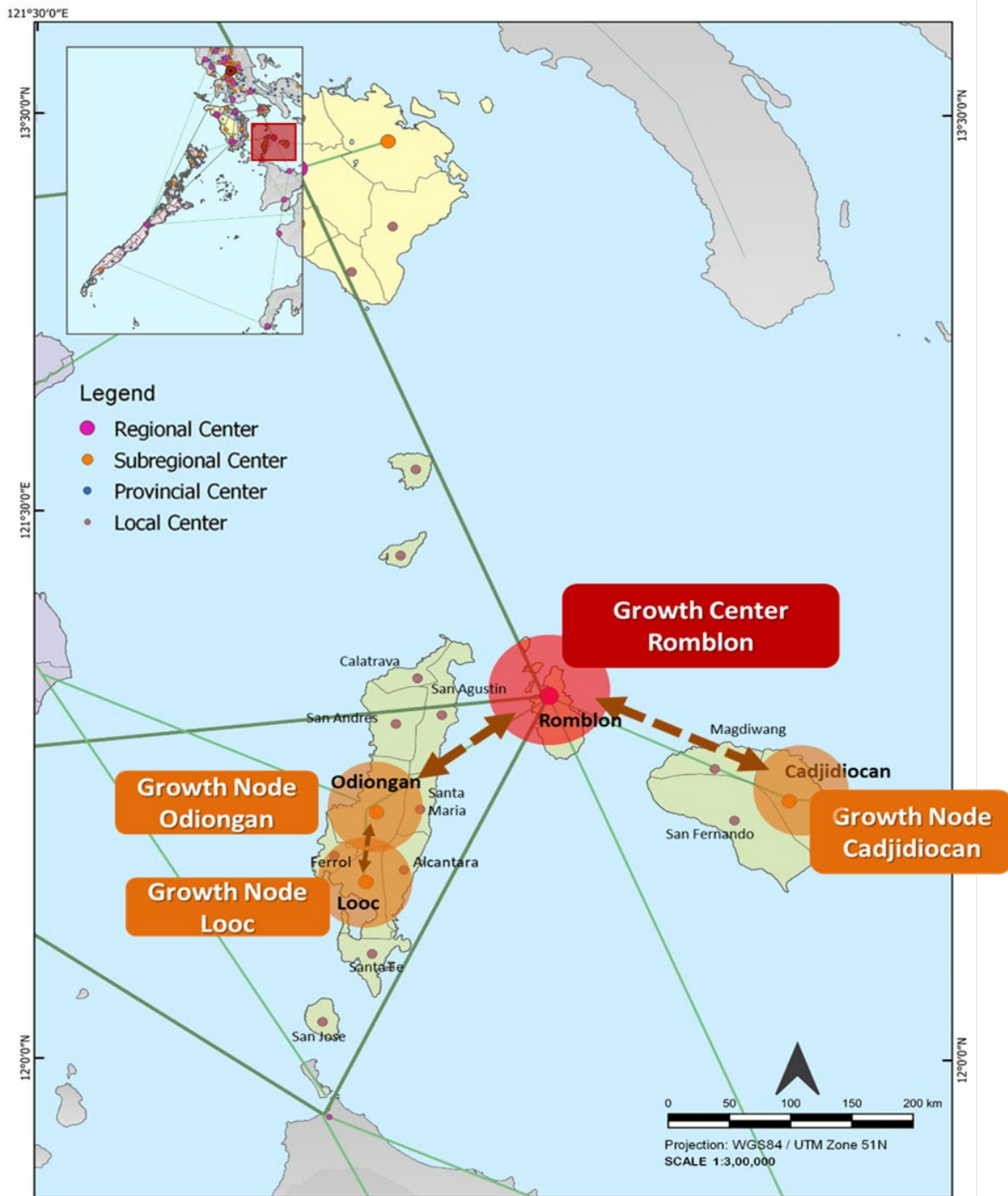
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Figure 2.15 Proposed Spatial Strategy of Marinduque, 2023-2028



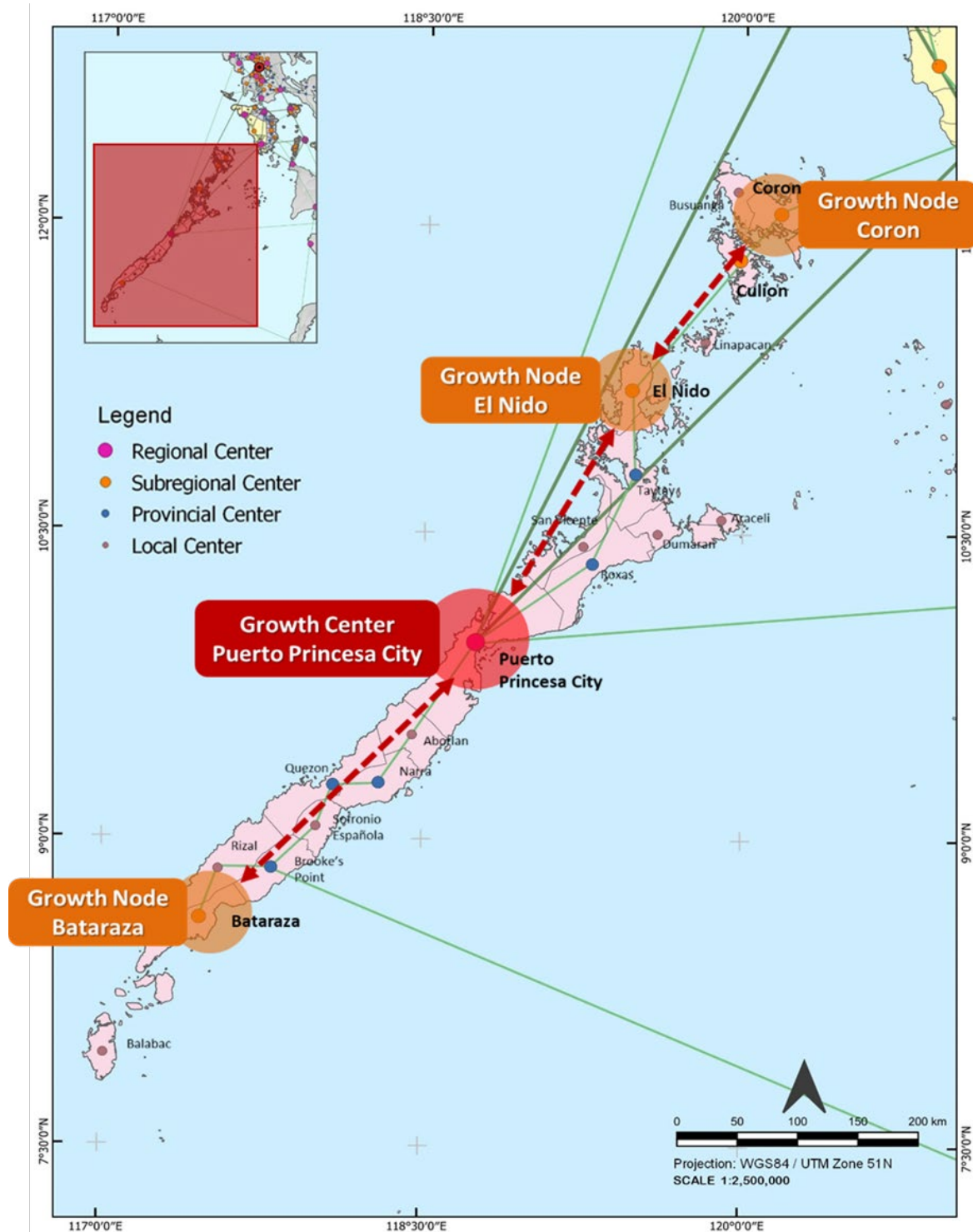
Generated by NEDA MIMAROPA GIS Team (PFPD)

Figure 2.16 Proposed Spatial Strategy of Romblon, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PFPD)

Figure 2.17 Proposed Spatial Strategy of Palawan, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PFPD)

Connectivity

Transportation Network

MIMAROPA is one of the top regions of origin of domestic travelers utilizing water transport primarily because it has no land border with another region. It is connected to the rest of the country through a network of seaports. A total of 41 existing port-to-port points and additional 14 points are being proposed to enhance connectivity and mobility.

Calapan City Seaport is the largest and busiest seaport in Mindoro Island, which is just two hours away by ferry boats and roll-on/roll-off (RORO) ships to-and-from Batangas City International Seaport. Once the ongoing expansion of its passenger terminal building is complete, it will be the biggest port passenger terminal to date as it is expected to accommodate 3,500 passengers at any given time.

As of 2021, the region's national road network is predominantly concrete, surfacing at 87.82 percent or 2,017.98 km out of the total length of 2,297.98 km. Asphalt roads comprise 6.29 percent of the total road network. Gravel and earth roads are only about 5.83 percent and 0.07 percent or 133.94 km and 1.55 km, respectively.

At present, the northern sections of Oriental Mindoro and Occidental Mindoro are yet to be connected. Said connection will be realized upon the completion of the Mindoro Island Circumferential Road Project, particularly the Abra de Ilog – Puerto Galera Road Section.

The MIMAROPA Connectivity Framework

The MIMAROPA provinces are surrounded by bodies of water. Thus, physical connectivity remains a challenge in the region. Although Oriental Mindoro and Occidental Mindoro are physically connected by land, a loop connecting the two provinces is yet to be established.

To support agriculture, trade, and tourism development in the region, critical transportation infrastructure projects will be prioritized to connect island provinces within and outside the region. This interconnection will improve the mobility of people, goods, and services.

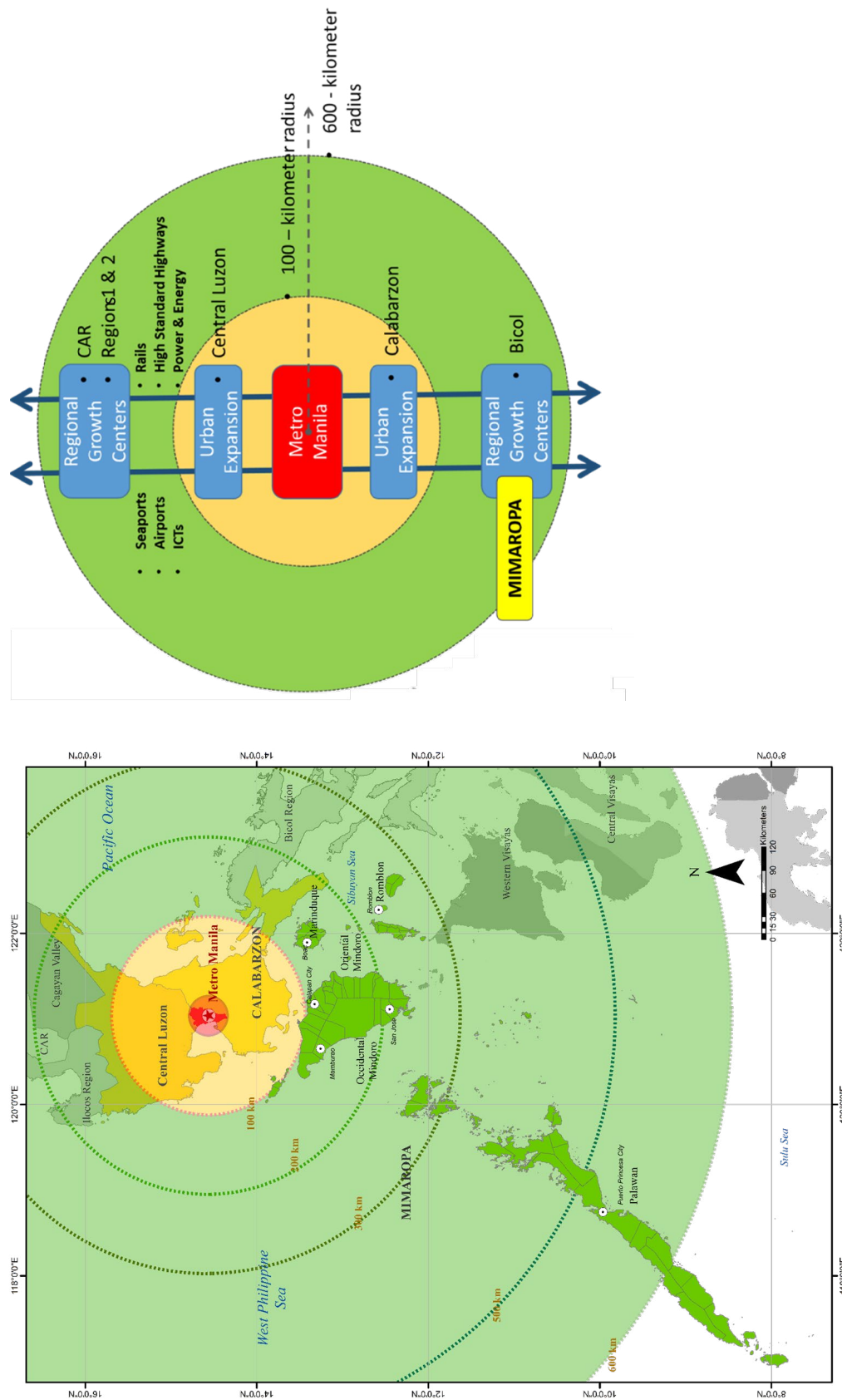
The MIMAROPA connectivity framework, which will make use of an intermodal transportation system, will encourage the establishment of competitive airports, seaports, and road networks to strengthen the Strong Republic Nautical Highway System, Central Nautical Highway, and Western Nautical Highway to allow better access and circulation to the central business districts through the alternative regional growth nodes.

Part of the MIMAROPA connectivity framework is the development of a nautical highway system in the West Philippine Seaboard Section. This will be realized through the proposed extension of Southern Tagalog Arterial Road (STAR) Tollway to the MIMAROPA Region. The controlled access toll expressways will start in Bataan which will bust through Cavite via the proposed Cavite-Bataan bridge. This will then be extended to the region through the construction of the proposed Batangas-Mindoro Super Bridge, allowing the highway system to extend uninterruptedly from STAR tollway to San Jose Occidental Mindoro.

From this point, the current RoRo system from San Jose, Occidental Mindoro to Coron, Palawan will enable the proposed Coron-Culion-Busuanga Bridge to be a vital link to the existing RoRo route from Busuanga to El Nido, Palawan. The road network from El Nido to Bataraza, Palawan will then conclude the West Philippine Sea Board Nautical Highway. The establishment of the latter can potentially provide greater access to the Borneo Indonesia Malaysia Philippines – East Asia Growth Area (BIMP-EAGA).

The connectivity framework of the region shall also pursue other inter-island connectivity strategies, including Information and communication technology and power and energy, which will be discussed more elaborately in Chapter 13.

Figure 2.18 Integrated development concept of the MIMAROPA Regional Spatial Strategy Framework



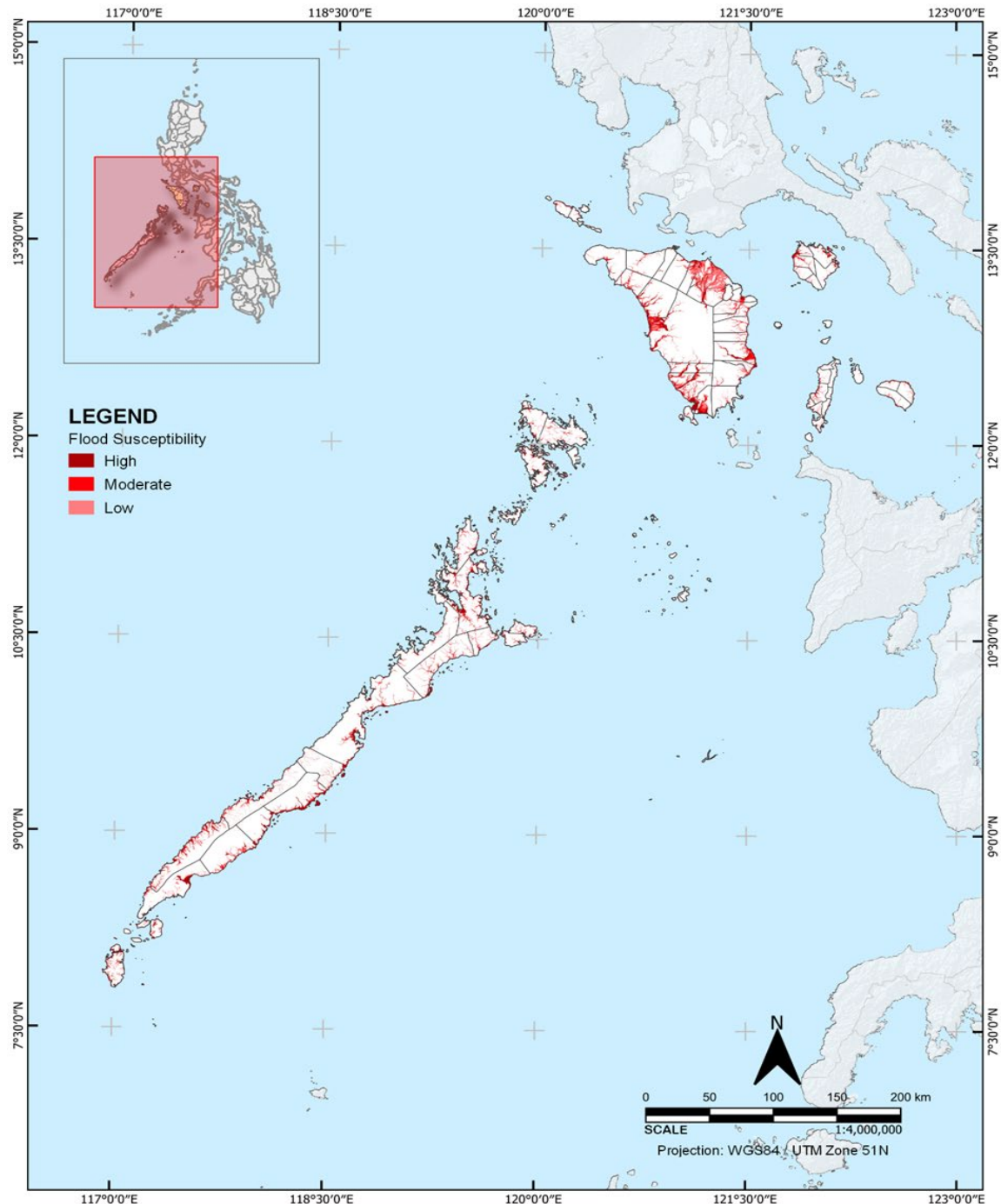
Generated by NEDA MIMAROPA GIS Team (PFPPD)

Vulnerability Reduction

The location and topography of MIMAROPA make it vulnerable to various hazards, both geologic and hydro-meteorological.

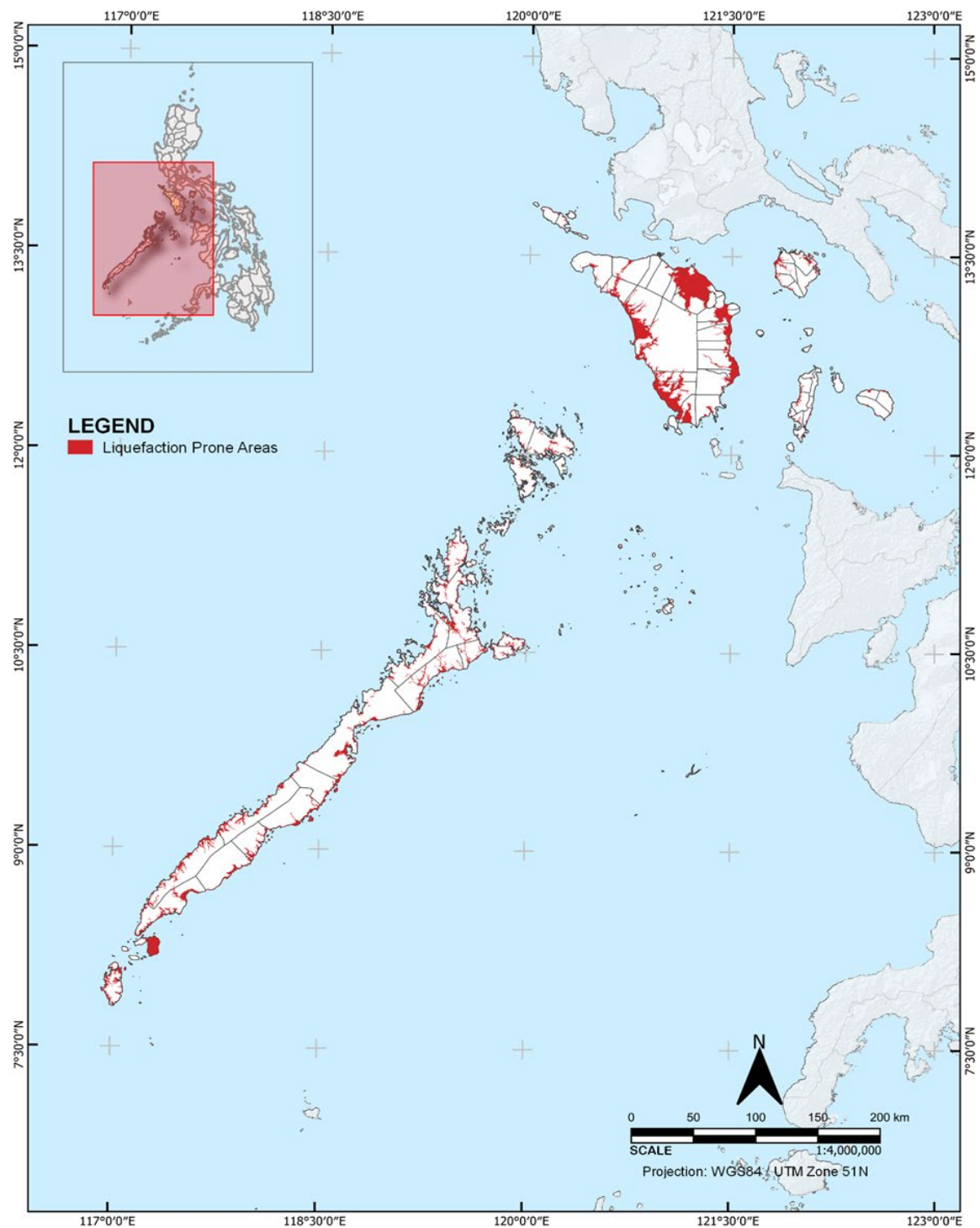
Generally, settlements and developments situated in coastal regions are prone to multiple hazards, as these areas are pre-disposed to flooding, occurrence of storm surges, and liquefaction. The upland and mountainous regions are also prone to hazards such as steep slopes and rain-induced landslides.

Figure 2.19 Flood Prone Areas in MIMAROPA



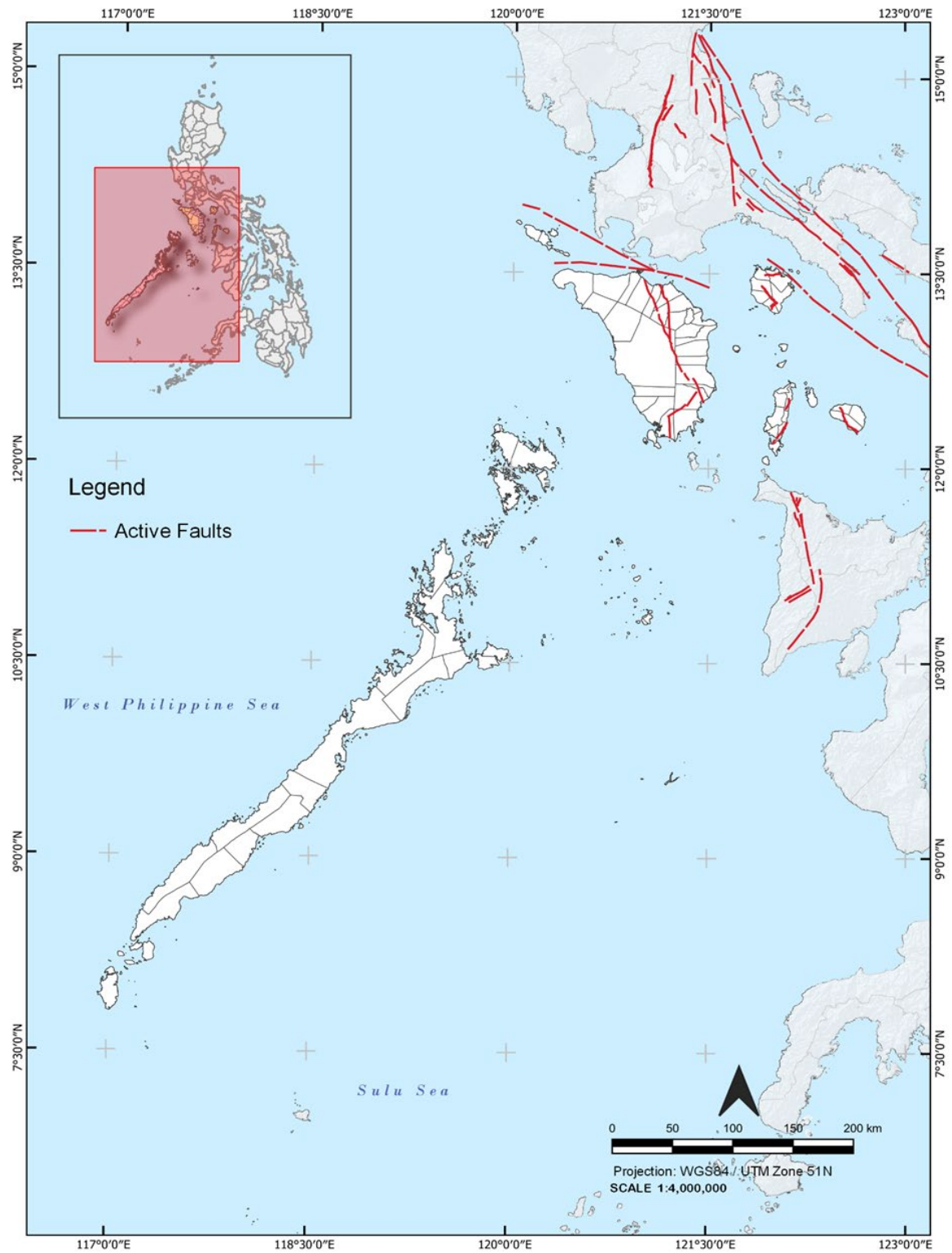
Generated by NEDA MIMAROPA GIS Team (PPPD)
Sources: NAMRIA, DENR-MGB MIMAROPA

Figure 2.20 Liquefaction Prone Areas in MIMAROPA



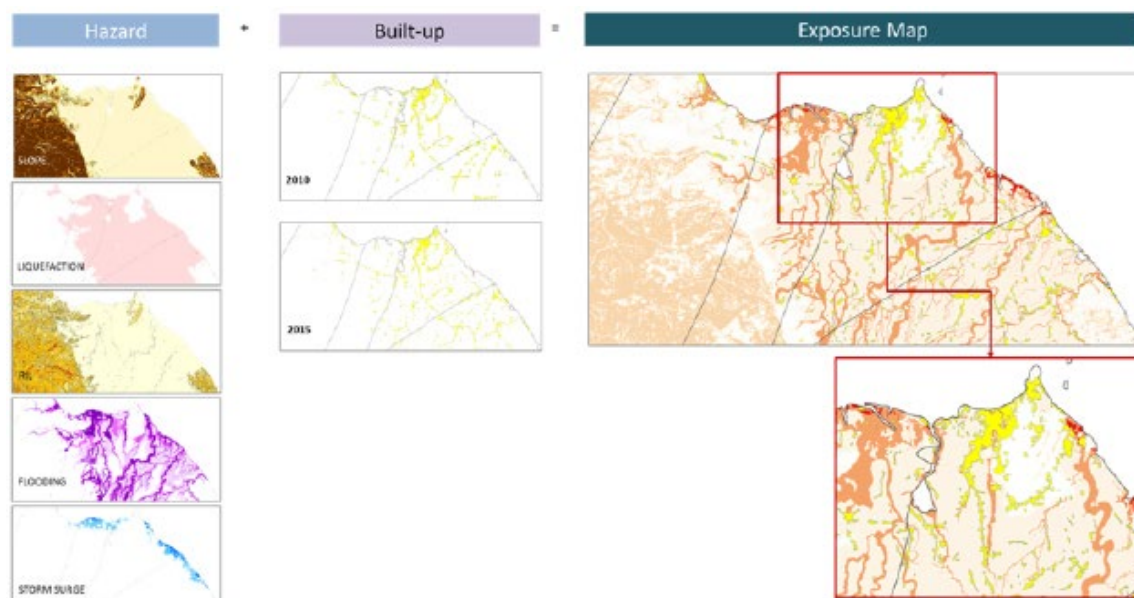
Generated by NEDA MIMAROPA GIS Team (PFPD)
Sources: NAMRIA, DENR-MGB MIMAROPA

Figure 2.21 Active Faults in MIMAROPA



Generated by NEDA MIMAROPA GIS Team (PFPD)
Sources: NAMRIA and Philippine Institute of Volcanology and Seismology

Figure 2.22 Vulnerability Reduction Framework of the MIMAROPA Region, 2023-2028



Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

The vulnerability reduction framework of the MIMAROPA Region made use of a multi-hazard analysis that considered five extreme hazards, such as i) steep slopes (> 30%), ii) liquefaction, iii) rain-induced landslide, iv) flooding, and v) storm surge. These hazards were mapped out to identify areas where one or more of these hazards exist and tend to overlap with one another.

Built-up areas in the region were subjected to this multi-hazard framework to identify the exposure of settlements and developments to extreme hazards. Built-up areas that were affected by one or a combination of these five identified hazards are considered high-risk areas.

In general, built-up areas in coastal regions are most likely to be exposed to higher risks, since most hazards considered are found to overlap within these areas. In MIMAROPA, built-up areas affected by extreme hazards are recorded to be at 18,726.03 hectares, or equivalent to 51.71 percent of the total built-up areas in the region.

In terms of land area, built-up areas most affected by extreme hazards were recorded in the province of Oriental Mindoro, with a total of 6,521.61 hectares or 64.48 percent of the total built-up area in the province. This may be attributed to the settlements/infrastructure in coastal areas, particularly in Puerto Galera. Built-up areas in said regions are more exposed to extreme hazards, and are therefore considered to be high-risk areas.

With relatively smaller built-up areas compared to Oriental Mindoro, 5,223.31 has of built-up areas in Occidental Mindoro are considered as high-risk areas. These areas make up 78.06 percent of the total built-up area in the province, leaving only less than a quarter as not exposed to extreme hazards.

However, hazards may still occur even in areas identified as non-high-risk, although at a lesser extent. These areas may include those that were identified to have low and/or moderate susceptibility to hazards, which does not signal or indicate life-threatening consequences for settlements in the said areas.

Table 2.7 Affected Built-up Areas by Extreme Hazards / Combination of Hazards by province, MIMAROPA

HAZARDS / COMBINATION OF HAZARDS	AFFECTED 2015 BUILT-UP AREAS (HAS)											
	MARINDUQUE	% Share	OCC. MINDORO	% Share	OR. MINDORO	% Share	ROMBLON	% Share	PALAWAN	% Share	TOTAL	% Share
Slope	5.29	0.26	4.18	0.06	25.75	0.25	26.53	1.38	19.82	0.13	83.54	0.23
Liquefaction	507.70	25.20	4083.78	61.02	5558.33	54.96	491.77	25.56	3100.62	30.66	13908.94	137.52
Rain-induced Landslide	83.42	4.14	15.28	0.23	93.61	0.93	121.83	6.33	127.20	1.26	452.95	4.48
Storm surge	0.47	0.02	2.74	0.04	3.04	0.03	1.65	0.09	8.94	0.09	17.02	0.17
Flooding	41.25	2.05	81.87	1.22	166.71	1.65	80.00	4.16	464.98	4.60	843.88	8.34
Slope + Liquefaction	0.11	0.01					0.27	0.01	0.99	0.01	1.38	0.01
Slope + Rain-induced Landslide	7.64	0.38	1.36	0.02	12.31	0.12	19.32	1.00	22.62	0.22	64.78	0.64
Slope + Flooding	0.04	0.002	0.002	0.00004			0.45	0.02	0.09	0.001	0.61	0.01
Liquefaction + Rain-induced Landslide	13.22	0.66	0.01	0.0002	0.71	0.01	13.76	0.72	2.13	0.02	31.21	0.31
Liquefaction + Storm Surge	1.44	0.07	136.93	2.05	10.67	0.11	5.49	0.29	51.01	0.50	208.05	2.06
Liquefaction + Flooding	274.66	13.63	747.36	11.17	604.08	5.97	229.47	11.93	1086.39	10.74	2984.66	29.51
Rain-induced Landslide + Storm surge	0.002	0.0001	0.0001	0.000001	0.002	0.00002	0.04	0.002	0.15	0.001	0.20	0.002
Rain-induced Landslide + Flooding	4.57	0.23	0.63	0.01	1.73	0.02	9.27	0.48	2.98	0.03	19.91	0.20
Storm surge + Flooding	0.18	0.01	6.53	0.10	4.24	0.04	6.06	0.31	4.96	0.05	22.42	0.22
Slope + Liquefaction + Rain-induced Landslide	0.25	0.01					0.10	0.01	0.02	0.0002	0.39	0.004
Slope + Liquefaction + Flooding									1.21	0.01	1.21	0.01
Slope + Rain-induced Landslide + Storm surge									0.004	0.00004	0.004	0.00004
Slope + Rain-induced Landslide + Flooding	0.20	0.01	0.001	0.00001	0.004	0.00004	0.10	0.01	0.19	0.002	0.51	0.01
Liquefaction + Rain-induced Landslide + Storm Surge	0.01	0.001					0.19	0.01			0.21	0.002
Liquefaction + Rain-induced Landslide + Flooding	5.14	0.26			0.15	0.001	5.38	0.28	0.42	0.004	11.63	0.11
Liquefaction + Storm Surge + Flooding	14.55	0.72	143.64	2.15	40.26	0.40	30.55	1.59	79.79	0.79	313.65	3.10
Rain-induced Landslide + Storm surge + Flooding							0.04	0.002	0.02	0.0002	0.06	0.001
Slope + Liquefaction + Rain-induced Landslide + Storm surge									0.02	0.0002	0.02	0.0002
Slope + Liquefaction + Rain-induced Landslide + Flooding	0.06	0.003							0.05	0.0004	0.11	0.001

HAZARDS / COMBINATION OF HAZARDS	AFFECTED 2015 BUILT-UP AREAS (HAS)											
Liquefaction + Rain-induced Landslide + Storm Surge + Flooding	0.38	0.02			0.0003	0.000003	0.21	0.01	0.03	0.0003	0.66	0.01
TOTAL AFFECTED	960.56	47.68%	5224.31	78.06%	6521.61	64.48%	1042.49	54.18%	4974.62	32.16%	18726.03	51.70%
TOTAL UNAFFECTED	1054.17	52.32%	1467.98	21.94%	3592.53	35.52%	881.72	45.82%	10495.64	67.84%	17493.60	48.30%
TOTAL BUILT-UP AREAS	2014.728833	100.00%	6692.288416	100.00%	10114.13177	100.00%	1924.209907	100.00%	15470.26848	100.00%	36219.62741	100.00%

Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

Note: Built up areas as of 2015

Exposure Minimization

The main strategies for vulnerability reduction include exposure minimization. Proposed development in areas that were already identified as high-risk and/or restricted shall not be allowed, especially if no appropriate engineering and/or environmental measures are set in place.

Hazard Mitigation

Settlements identified to be located in high-risk areas shall be provided with necessary mitigating measures if complete relocation is not possible. Engineering designs may be patterned to mitigate geologic and hydro-meteorological hazards. For instance, in cases with concerns about stability and sloping earth, retaining walls may be constructed. Techniques in constructing these may include soil anchors or soil nails, tiebacks, shear pins, and slurry walls. Other environmental friendly techniques such as the construction of gabions may also be considered. For streams, construction of ripraps may be recommended.

On the other hand, environmental strategies may also be put in place to mitigate hydro-meteorologic hazards such as typhoon, tropical cyclones, and flooding, among others. Mangrove plantations can be an alternative to the construction of seawalls. Such strategy is encouraged especially for areas with rich biodiversity or those designated as protected areas.

Efforts on connectivity shall also be consistent with this measure to ensure the safety of motorists and the general public. Transportation redundancy may also be an option to reduce the exposure of motorists in disaster-prone or high-risk areas. For example, in case of flood occurrence, alternate routes shall be

established specifically for areas that are no longer passable for motorists. Mitigating the effects of specific hazards, such as flooding, on identified areas is necessary to ensure the continuity of economic activities/development in the region, as well as to ensure the well-being of every MIMAROPAn.

Enhancing Adaptive Capacity

Communities in the region shall also be provided with appropriate capacity building activities such as training that will prepare and equip them during disasters and calamities. Policies and programs shall also be put in place to ensure preparedness for disasters and calamities.

PRODUCTION LAND USE FRAMEWORK

The production land use framework of the MIMAROPA Region considered a number of factors such as settlements or commercial areas, areas identified as “strategic” for production of crops, livestock and fisheries resources based on the recent delineation of Network of Protected Areas for Agriculture and Agro-Industrial Development (NPAAAD) and SAFDZ areas of the BSWM, areas with identified mineral resources, and lastly – forestlands designated as “production forest” by DENR MIMAROPA.

Strategic areas for production of crops, livestock and aquatic resources are all vital in ensuring food security in the region, whereas mineral resources are potential source of economic growth. The MIMAROPA Region is rich in mineral resources, both metallic and non-metallic. Among the metallic minerals present in the region are nickeliferous laterite, copper, gold, silver, chromite (metallurgical and refractory grades), iron, manganese, mercury,

molybdenum, lead, and zinc. Non-metallic minerals are marble, limestone, cement raw materials, silica sand, construction materials, feldspar, talc, barite,

and sulphur. Among the minerals already explored nickel, limestone, and marble have the largest deposits in the region.

PROTECTION LAND USE FRAMEWORK

The protection land use framework shall provide a guiding mechanism to determine which areas should be designated for protection and preservation. This is important in ensuring the sustainability of natural resources in the region.

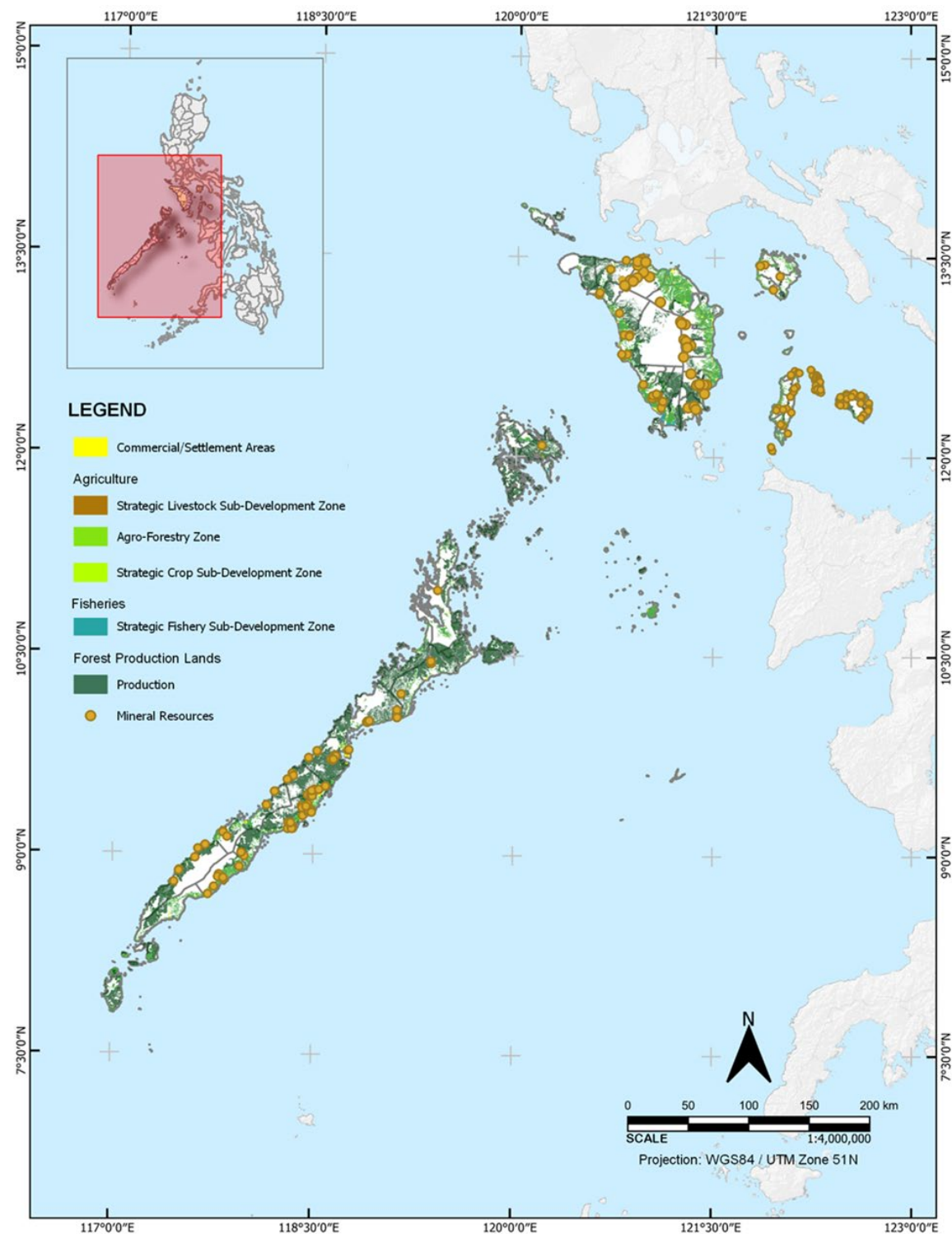
These areas include those that were enumerated in the NIPAS Act or RA 7586, s. 1992. Other areas not included in NIPAS, such as those with high ecological value, rich biodiversity, and those with cultural value or importance, are also included.

The framework also included watershed reserves, water bodies, rivers, lakes, and inland waters, which were delineated through the recent updating of the NPAAAD and SAFDZ of the Bureau of Soils and Water Management.

Road right-of-way pursuant to Republic Act No. 10752 or “An Act Facilitating the Acquisition of Right-of-Way Site or Location for National Government Infrastructure Projects” was also included in the framework. This will allow the region to effectively manage its limited resources by setting aside the areas which will eventually be utilized to further improve connectivity infrastructure projects in the region, particularly major roads.

The protection land use framework also included areas with cultural value, such as areas with issued certificate of ancestral domain titles (CADTs). These documents are issued to qualified groups of indigenous peoples (IP) whose land may only be utilized upon securing the consent of the concerned IP group through the issuance of a free, prior and informed consent or FPIC.

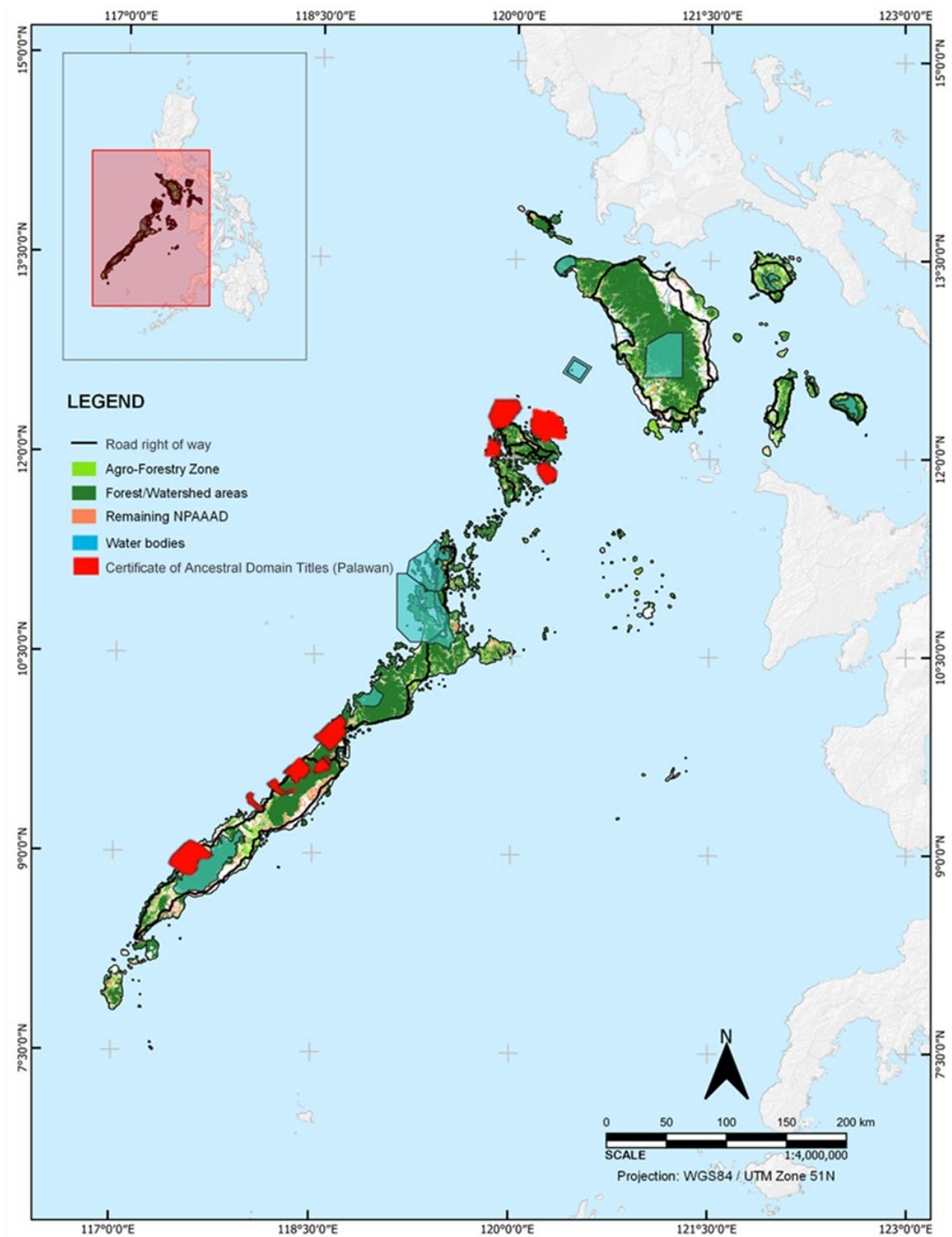
Figure 2.23 Production Land Use Map of the MIMAROPA Region, 2023-2028



Generated by NEDA MIMAROPA GIS Team (PPFD)

Source: NAMRIA, DENR MIMAROPA, BSWM

Figure 2.24 Protection Land Use Map of the MIMAROPA Region



Generated by NEDA MIMAROPA GIS Team (PFPDA and PMED)

Source: NAMRIA, DENR MIMAROPA, DPWH MIMAROPA, NCIP MIMAROPA, BSWM

INFRASTRUCTURE LAND USE FRAMEWORK

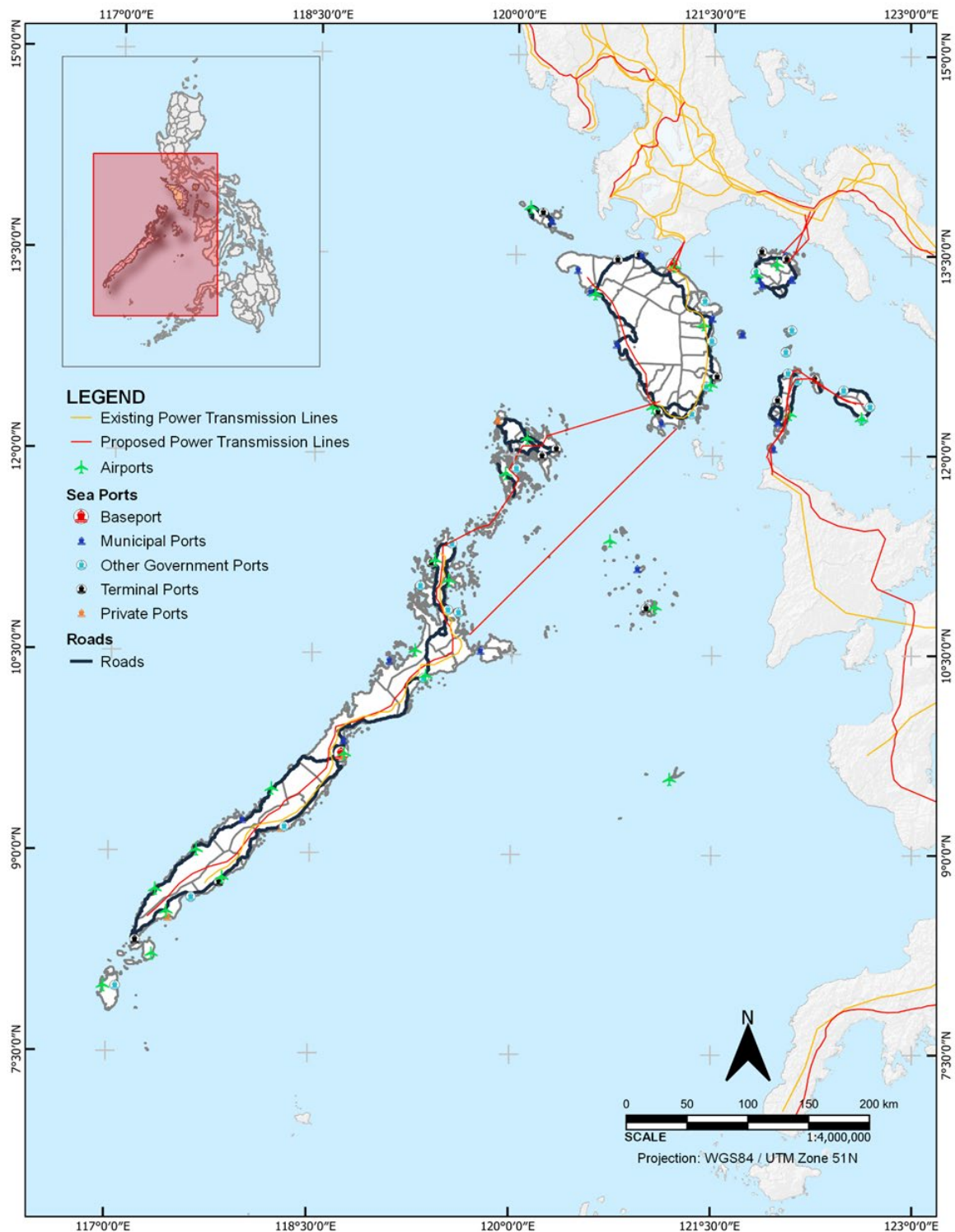
Infrastructure facilities are instrumental in boosting the connectivity and economy of the MIMAROPA region. Connectivity in transport, energy, and communication are vital in ensuring the continuity of development in regional center and sub-regional centers, thereby extending the benefits to local centers.

Major transport infrastructure include the maintenance of existing, and development of new,

airports, seaports, and roads which will link people, products and services throughout the five island provinces of the MIMAROPA region. Linking these islands outside the region is also important to continue the mobility of resources – people and goods and services – throughout the country.

Mapping out the existing and proposed power transmission lines within and outside the region is also necessary to effectively execute the plans to connect the MIMAROPA Region to the Philippine GRID.

Figure 2.25 Infrastructure Map of the MIMAROPA Region



Generated by NEDA MIMAROPA GIS Team (PFPD)

Source: NAMRIA, DPWH, CAAP, MARINA Regional Office IV, National Grid Corporation of the Philippines

03

Overview of the MIMAROPA Regional Development Plan 2023-2028 Strategy Framework

OVERVIEW OF THE MIMAROPA REGIONAL DEVELOPMENT PLAN 2023-2028 STRATEGY FRAMEWORK

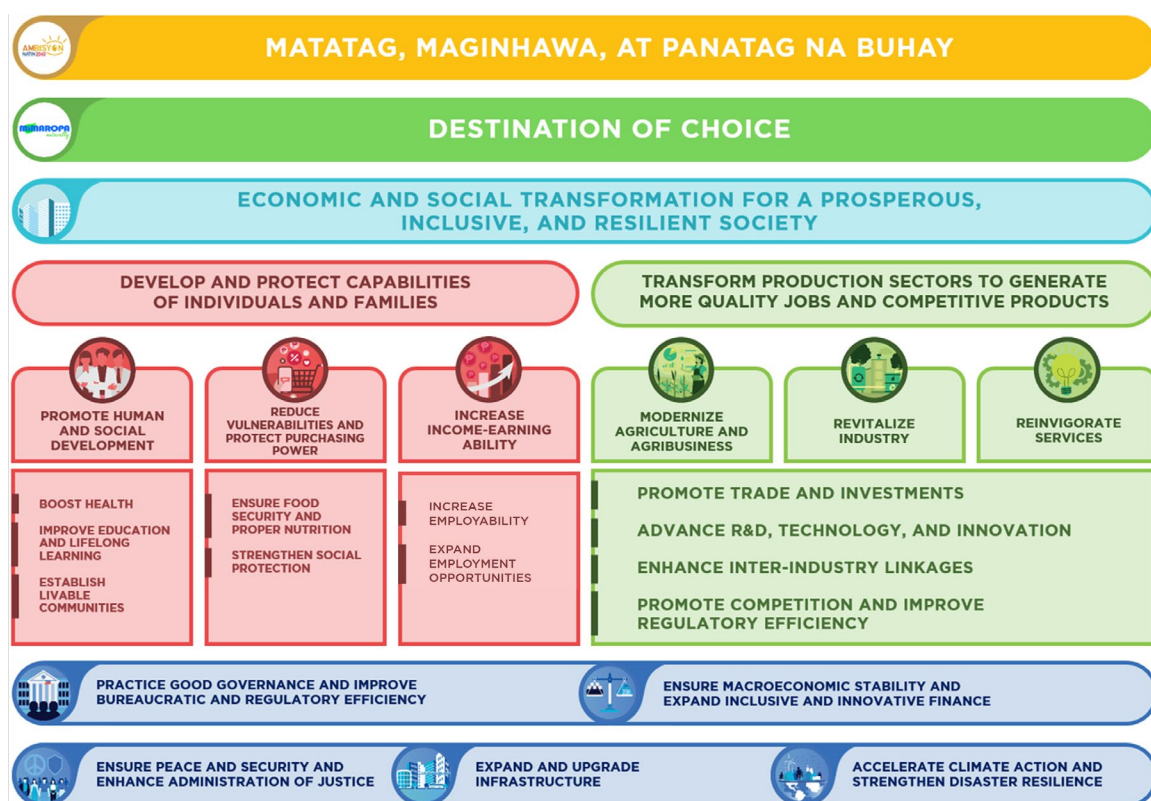
The country's long term vision also known as the Ambisyon Natin 2040, which necessitates inter-generational equity, is consistent with the Sustainable Development Goals (SDG)'s core principles of sustainable and inclusive development.

The MIMAROPA Regional Development Plan (RDP) 2023-2028 is the second among the four medium term development plans geared towards the Ambisyon Natin 2040. It adopted the vision statement: "MIMAROPA: The destination of choice." The region's stakeholders envision MIMAROPA as the destination of trade and investments, agri-industrial development, modern infrastructure systems, livelihood, residence, employment, adventure, rest, recreation, and retirement.

Consistent with the Philippine Development Plan (PDP) 2023-2028, the MIMAROPA RDP 2023-2028 focuses on the President's 8-point socioeconomic agenda, which seeks to reinvigorate job creation and accelerate poverty reduction while addressing issues brought about by the COVID-19 pandemic.

The strategies spelled out in the MIMAROPA RDP 2023-2028 will bring back the region to its original growth trajectory and more importantly, begin economic transformation for a prosperous, inclusive, and resilient society (Figure 3.1). This transformation is in line with the SDGs and critical for achieving the country's long term vision of providing a "matatag, maginhawa, at panatag na buhay para sa lahat."

Figure 3.1 MIMAROPA RDP 2023-2028 Strategy Framework



Develop and protect capabilities of individuals and families

For individuals and families, transformation will come by way of ensuring that human and social development services on health, education, and lifelong learning, including the establishment of livable communities, will provide individuals and families with the necessary set of capabilities to be economically productive. They will also have access to training and skills development, and employment facilitation programs to ensure that their capabilities remain relevant. In addition, the government will establish an array of programs to ensure food security and proper nutrition, especially for the most vulnerable, and complemented by a holistic, modernized, and strengthened social protection system.

Boost health. Regional and local government investments in health will be prioritized. Vaccination programs will be intensified. Delivery of health services for IPs and those in geographically isolated and disadvantaged areas (GIDAs) will be strengthened. To improve life expectancy, top causes of mortality and morbidity in the region will be addressed and occupational health care will be promoted. Healthy choices and behavior will be enabled by leveling up the efforts on responsible parenting and reproductive health among families. Strategic interventions to reduce the incidence of adolescent pregnancies in the region will be prioritized including localization of population and development strategies. Health literacy as well as appropriate health-seeking behavior will also be promoted.

Improve education and lifelong learning. The quality of education at all levels will be improved. Education-support facilities will be upgraded including the delivery of ICT services. Higher education (HE) and TVET programs for lifelong learning will also be improved to match the industry

arrangements and ensure responsiveness to the needs of the region. Enhancement of the capacity of teaching and non-teaching staff will also be prioritized.

Establish livable communities. The living conditions of households and the quality of the environment where the communities live in will be improved. Social cohesion will also be strengthened to build resilience in the community. Settlements will be connected to economic activities and urban services. Monitoring and enforcement of air and water quality standards will be expanded and waste management strategies will be strengthened.

Ensure food security and proper nutrition. The productivity and resilience of the agri-fishery sector will be enhanced to attain a sufficient and stable supply of food commodities. Buffer stocking capacity for basic food items for emergencies and disasters shall be increased while preventing food wastage.

To expand consumers' access to affordable, safe, and nutritious food, marketing, transport, distribution, payment, and logistics systems will be improved with the use of digital platforms. Technologies will be utilized to improve food packaging and product labeling. Monitoring of price and supply of food commodities will also be strengthened.

Nutrition-specific interventions especially at the local level will be carried out to address stunting, wasting, and obesity. A whole-of-society approach shall be adopted in promoting healthy lifestyle and a culture of active health-seeking behavior among population. Food safety standards especially those associated with persistent organic pollutants (POP) and pesticides and food product certification will also be closely monitored.

Strengthen social protection. Implementation of social protection (SP) programs especially for vulnerable groups (persons with disability, pregnant women, children, IPs, migrant workers, returning overseas Filipino workers (OFWs), persons in GIDAs, etc.) will be strengthened. Permanent and resilient evacuation centers will be established and mental health and psychological services will be implemented. Use of technologies and innovative practices will be used to improve delivery of SP programs for faster response to the needs of the most vulnerable. Monitoring and evaluation of SP programs shall be institutionalized. Timely and adequate financing of SP programs shall also be ensured. Coordination and collaboration

with public and private stakeholders during disasters will be further strengthened.

Increase income-earning ability. Mechanisms to match HE and TVET priority programs and courses with local and regional industry requirements shall be instituted. Awareness of the PQF and Philippine Skills Framework (PSF) will also be promoted to boost the competitiveness of the workforce. Public Employment Services Offices (PESO) will be maximized to provide services on labor market information, referral and placement, employment coaching, and career counseling to ensure prompt and efficient delivery of employment facilitation programs. Interventions, programs, and policies that address all forms of labor market discrimination in work, education, and training shall be developed. Shared labor market governance will be achieved through integration of lifelong learning principles and processes into human resource development programs and active participation in government-industry associations that promote and implement employment and skills development policies and strategies.

Transform production sectors to generate more quality jobs and competitive products

For production sectors, transformation will come by way of greater support to research and development (R&D), technology development and adoption, and innovation.

Agriculture and agribusiness will be modernized, following a “farm-to-plate” value chain. Industry will be revitalized with focus on manufacturing. Services, including tourism, creative, and business processing sectors will be reinvigorated. The government will also be aggressive in promoting trade and attracting investments.

Modernize agriculture and agribusiness. Irrigation development will be accelerated and provision of agri-fishery machinery and facilities will be intensified. Integrated farming (farm diversification), urban agriculture, ecosystem approach to fisheries management, and adoption of innovative technologies will be promoted to improve efficiency in agriculture and fishery production. Access to markets and AFF-

based enterprises will be expanded by establishing trading posts, bagsakan centers, and online marketing platforms, intensifying product diversification and value adding, improving transportation and logistics, intensifying A&F consolidation and clustering, providing access to affordable financing, and developing the blue economy. To improve resilience of AFF value chains, climate and disaster-resilient technologies will be adopted. Moreover, climate and disaster risks will be integrated in AFF planning and programming. Agricultural insurance coverage will also be expanded.

Revitalize industry. Revitalizing the industry sector will be done by expanding the domestic market production and supplier base and improving the value chain. Value chain will be improved by creating a dynamic industry ecosystem where science-based industries are developed, industries are encouraged to adopt developed technology to increase productivity and workforce is upskilled and reskilled on adapted technologies. Competitiveness of micro, small, and medium enterprises (MSME) will be improved by upgrading logistics and inter-island transfers, lowering energy costs, promoting renewable energy sources, and digitalizing MSMEs. Support to industries producing for the domestic market will be also intensified. Regional agri-industrial centers will be developed and common service facilities will be established to increase yield and promote and achieve economies of scale.

Reinvigorate services. To reinvigorate services, market expansion shall be achieved and creativity and innovation in significant services growth drivers shall be strengthened. Tourism products and services will be diversified, business processing will be fast tracked, and e-commerce will be accelerated. Access of MSMEs to capital, digital technologies, and start-ups will be improved. Capability-building activities will be provided to ensure sustainable supply of a competitive, creative, and high-skilled workforce.

Advance research and development, technology, and innovation. To accelerate the growth of research and development, technology, and innovation, market-driven R&D shall be intensified. This includes increasing R&D and science, technology, and innovation (STI) expenditures aggressively, creating/improving R&D-related information/database, and increasing the number of partnerships for R&D development. Commercialization, adoption, and utilization of technology shall also be improved by providing assistance and incentives to intellectual

property application and management for R&D and technology personnel and strengthening provincial S&T offices. Innovation and entrepreneurship shall also be accelerated by increasing access to financing opportunities for R&D and innovation projects, accelerating business mentoring and scientific technical assistance, accelerating the implementation of the Philippine Innovation Act, and establishing and promoting innovation hubs and other similar collaborative platforms.

Promote trade and investments. Export sector will be strengthened through expansion of food and aquamarine export products and diversification of metallic and non-metallic export products. Investments in priority industries shall also be increased by intensifying promotion for foreign direct investments (FDI) including environment, social, and governance (ESG) investments, and boosting investments in power, energy, and connectivity infrastructures.

Enabling Environment

Ensure macroeconomic stability and expand inclusive and innovative finance. Favorable business climate characterized by macroeconomic stability and inclusive and innovative finance shall be created. To promote an inclusive, innovative, and healthy financial sector, financial innovation will be accelerated and strengthened by promoting and providing funding for innovation and startups and strengthening the delivery of products and services. Moreover, financial inclusion will be also broadened and deepened by improving the access to relevant financial services and developing barangay micro business enterprises.

Furthermore, productive, equitable, and simple tax systems as well as stable local government finance are key to ensuring sound fiscal management and improving the tax regime. These can be done by simplifying tax systems, procedures, and structures, and developing and expanding digital tax payments. Strengthening the capacity of LGUs on budgeting and expenditure management will contribute to increased revenues and implemented devolved functions.

Expand and upgrade infrastructure. Sustainable, resilient, integrated, and modern infrastructure systems are crucial to economic growth. Economic

and social infrastructures will be expanded and upgraded. Planning, programming, and asset management in infrastructure will be enhanced by employing integrated master-planning development and convergence programs and incorporating resilient and innovative solutions in infrastructure design. Seamless and inclusive connectivity will be achieved by moving people, goods, and information through modernized and smart intermodal transport systems and digital infrastructure facilities, and strengthening and improving and expanding the western nautical highway system and addressing universal mobility and connectivity needs. Public transport systems including new sea and air transport linkages will be strengthened and promoted. Water security, ecological integrity of water systems and resiliency to water hazards will be attained by upgrading and expanding water infrastructure and strengthening integrated water resources management (IWRM) implementation. Affordable, accessible, reliable, and clean energy and an enhanced support to social development will also be provided.

Ensure peace and security, and enhance administration of justice. Peace and security and the practice of good governance will be ensured. Conflict-affected/vulnerable areas shall be protected and developed by reintegrating rebel surrenderers into the community and strengthening community development programs for affected barangays. Moreover, public safety and security shall also be ensured by improving law enforcement and the operability of public safety facilities, enhancing anti-drug inter-agency cooperation and community awareness on disaster risk reduction and management.

Access to civil and criminal justice system will be enhanced by improving case disposition system and justice sector capacity. Penal management and administration will also be improved by increasing and improving jail and prison facilities, enhancing penal operability, and improving the welfare and development of persons deprived of liberty (PDL).

Practice good governance and improve bureaucratic and regulatory efficiency.

Participatory governance will be encouraged by strengthening regional and local development councils and providing capacity development to stakeholders. Public service will be strengthened by ensuring competent and resilient government employees, promoting transparent and clean governance, and improving the competitiveness of LGUs. Burden of regulation will also be reduced through streamlining of delivery of services in the public sector and strengthening compliance monitoring on Ease of Doing Business.

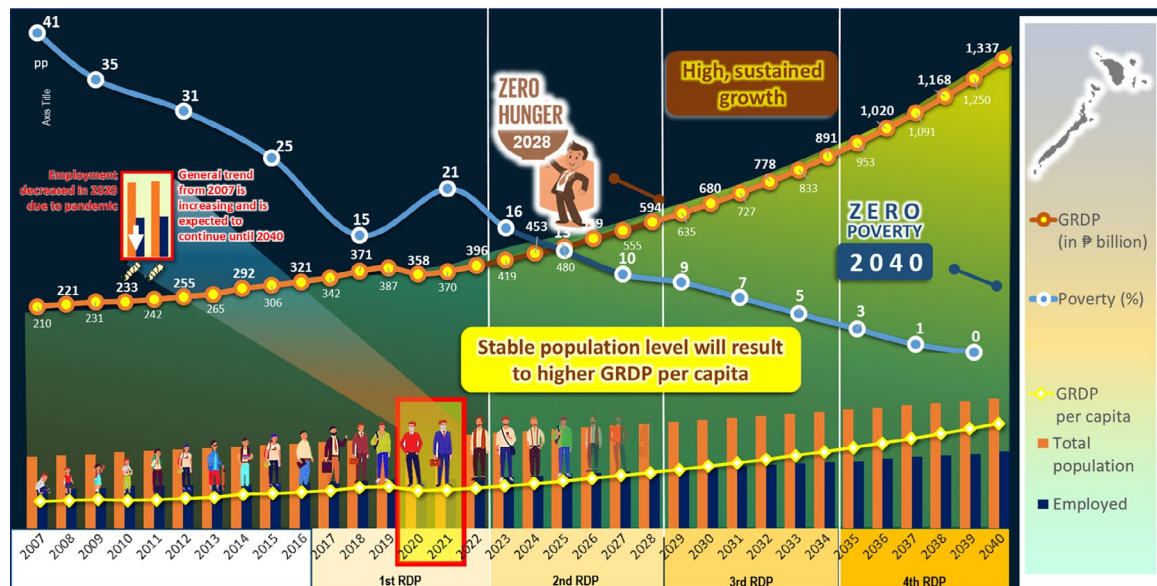
Accelerate climate action and strengthen disaster resilience.

Resilience of communities to disasters (natural and manmade) and climate change will be strengthened. The capacity of LGUs and communities on disaster prevention and preparedness will be strengthened as well as multistakeholder collaboration in building and translating knowledge to climate change adaptation and disaster risk reduction. Environment and natural resource management strategies will also be pursued to support and sustain inclusive and resilient economic growth. Protection, rehabilitation, and management of the ecosystem will be intensified. Promotion and expansion of natural resource-based industries and enterprises will also be prioritized.

Headline Targets

The following headline targets that focus on poverty reduction will guide the development agenda of the MIMAROPA Region for the next six years (Figure 3.2):

Figure 3.2 GRDP, Poverty Incidence, Population, Employment, MIMAROPA, 2007-2040



Source: Generated by NEDA MIMAROPA (PFDP)

Manage population growth, lower average household size to four persons. The region's average household size in 2020 was recorded at 4.1, which is an improvement from 2015's 4.4. By effectively localizing the Philippine population management program, MIMAROPA will attain its ideal household size of four persons per household by 2025.

Return to pre-pandemic GRDP trajectory, steadily grow by 7.0 percent annually. MIMAROPA recorded its highest GRDP in 2019 with Php386.78 billion. This, however, dropped in 2020 brought about by the unprecedented health crisis. To estimate when and how the region will be able to return to its original growth trajectory that was disrupted by the pandemic, low-end and high-end growth targets were set at 5.5 percent and 7.0 percent, respectively.

To be at par with the highest level of GRDP achieved in 2019, the region's economy must grow by at least 7.0 percent in 2022 and steadily grow by 7.0 percent annually in the succeeding years. At this rate of growth, full recovery and doubling of the GRDP is expected to be attained in 2032.

Reduce poverty to 9.0 percent. MIMAROPA recorded its lowest poverty incidence in 2018 at 15.1 percent, when the economy grew at a rate of 8.6 percent. This, however, unfavourably increased to 20.8 percent in 2021, when the economy contracted by 7.6 percent. The resulting GRDP per capita was considered in the estimation of poverty incidence targets. Regression analysis showed a significant negative linear relationship between GRDP per capita and poverty level.

Reduce unemployment to between 4.0 to 5.0 percent. Unemployment remained below 5.0 percent from 2016 to 2019. This rate, however, almost doubled in 2020 and 2021 at 7.3 percent and 8.0 percent, respectively. The easing and lifting of restrictions and other post-pandemic recovery efforts are expected to boost economic activities in the region and create an enabling environment for business, investments, and productivity.

Keep food and overall prices low and stable. For the past three years, food inflation in the region accelerated from 1.0 percent in 2019 to 4.2 percent

in 2021. Among the top contributors to the surge in overall inflation were: corn, meat, and fish. Generally, these commodities suffered from weather disturbances, high cost of inputs, and/or pests and diseases which affected its domestic production. An efficient transportation system, post-harvest handling/processing coupled with enhanced accessibility to agricultural and fisheries commodities is expected to support the achievement of low and stable food prices in the region.

Attain food self-sufficiency. With modernized agriculture and adoption of new farming technologies, agriculture and fishery productivity is expected to improve, meeting the food requirements for domestic utilization.

In order to drive the region's economy to its original growth track, key programs and projects will be implemented in the next six years. Strategic infrastructure projects will be prioritized to pursue connectivity and create agglomeration economies, coupled with improved power generation and transmission and revived agriculture and tourism sub-sectors to realize holistic regional development.

Improve quality of transport infrastructures. As of October 2021, paved national roads (secondary and tertiary) reached 99.13 percent or 2,277.80 kilometers out of 2,297.71 kilometers total in the region. This is 16.08 percentage points higher than the 83.05 percent paved roads in 2016. Transportation networks in the region such as those roads implemented through the convergence projects must continue to improve tourism and agriculture in underdeveloped areas, and connect remote towns and municipalities to production, markets, and tourists to induce trade and move economic activities.

Provide stable access to electricity. Over 80 percent of the region's electricity is still generated from oil-based power plants which makes the region highly susceptible to any changes in petroleum price. The proposed interconnection of MIMAROPA with the Luzon and Visayas power grids is envisioned to provide the region's island provinces with access to bulk generation sources from the main grid. This will also provide means to export power once the generation potentials, including renewable energy-based plants, within the island have been developed.

Table 3.1 Headline Targets, MIMAROPA, 2023-2028 (in percentage)

INDICATOR	BASELINE	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION
	2021	2023	2024	2025	2026	2027	2028	
Population growth managed	1.82	1.82 (low) 1.62 (high)	1.82 (low) 1.62 (high)	1.82 (low) 1.61 (high)	1.82 (low) 1.61 (high)	1.82 (low) 1.60 (high)	1.82 (low) 1.60 (high)	PSA
GRDP (growth rates) increased	3.3	5.5 (low) 7.0 (high)	5.5 (low) 7.0 (high)	5.5 (low) 7.0 (high)	5.5 (low) 7.0 (high)	5.5 (low) 7.0 (high)	5.5 (low) 7.0 (high)	Regional Accounts of the Philippines (RAP); PSA
GRDP per capita (growth rates) increased	2.1	1.2 (low) 2.8 (high)	3.6 (low) 5.3 (high)	3.6 (low) 5.3 (high)	3.6 (low) 5.3 (high)	3.6 (low) 5.3 (high)	3.6 (low) 5.3 (high)	Regional Accounts of the Philippines; PSA
Poverty incidence (% of population) reduced	20.8	16.9 (low) 15.8 (high)	-	13.4 (low) 11.5 (high)	-	11.2 (low) 8.9 (high)	-	Family Income and Expenditure Survey (FIES); PSA
Unemployment rate decreased	8	7.37 (low) 6.87 (high)	6.80 (low) 6.30 (high)	6.23 (low) 5.73 (high)	5.66 (low) 5.16 (high)	5.08 (low) 4.58 (high)	4.51 (low) 4.01 (high)	Labor Force Survey (LFS); PSA
Inflation rate eased	4.5	4.5 (low) 2.5 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	PSA
Low and stable food inflation achieved	4.2	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	4.0 (low) 2.0 (high)	PSA
100% Rice self-sufficiency achieved/ surpassed	180.27	180.00 (low) 184.78 (high)	184.79 (low) 189.40 (high)	189.50 (low) 194.13 (high)	194.14 (low) 198.99 (high)	199.10 (low) 204.00 (high)	204.01 (low) 209.05 (high)	Department of Agriculture (DA) MIMAROPA

INDICATOR	BASELINE	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION
	2021	2023	2024	2025	2026	2027	2028	
100% White corn self-sufficiency achieved/ surpassed	619.96	630.00 (low) 635.46 (high)	635.47 (low) 651.34 (high)	651.35 (low) 667.63 (high)	667.64 (low) 684.32 (high)	684.33 (low) 701.43 (high)	701.44 (low) 718.96 (high)	DA MIMAROPA
100% Pork self-sufficiency achieved/ surpassed	342.24	345.00 (low) 350.80 (high)	351.81 (low) 359.57 (high)	359.58 (low) 368.55 (high)	368.56 (low) 377.77 (high)	377.78 (low) 387.21 (high)	387.22 (low) 396.89 (high)	DA MIMAROPA
100% Tilapia self-sufficiency achieved/ surpassed	19.44	19.50 (low) 19.93 (high)	19.94 (low) 20.42 (high)	20.43 (low) 20.94 (high)	20.94 (low) 21.46 (high)	21.47 (low) 23.00 (high)	23.01 (low) 25.00 (high)	DA MIMAROPA
100% Eggplant self-sufficiency achieved/ surpassed	33.23	33.50 (low) 34.07 (high)	34.07 (low) 34.91 (high)	34.92 (low) 35.78 (high)	35.79 (low) 36.68 (high)	36.69 (low) 37.60 (high)	37.61 (low) 38.54 (high)	DA MIMAROPA
Percentage of paved national roads (secondary) increased	99.23	99.83 (low) 100.00 (high)	100.00 (low) 100.00 (high)	100.00 (low) 100.00 (high)	100.00 (low) 100.00 (high)	100.00 (low) 100.00 (high)	100.00 (low) 100.00 (high)	Department of Public Works and Highways (DPWH)
Households with access to electricity increased	93.6	94.66 (low) 97.99 (high)	95.19 (low) 98.21 (high)	95.72 (low) 99.02 (high)	96.25 (low) 99.54 (high)	96.78 (low) 99.54 (high)	97.31 (low) 100.00 (high)	Department of Energy (DOE)

Sources: PSA, DA MIMAROPA, DPWH MIMAROPA, DOE

Table 3.2. Headline Targets, MIMAROPA, 2023-2028 (In actual units)

INDICATOR	BASELINE (2021)	UNIT OF MEASUREMENT	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION
			2023	2024	2025	2026	2027	2028	
Population growth managed	3,297,242	No. of individuals	3,411,303 (low) 3,398,584 (high)	3,473,561 (low) 3,453,794 (high)	3,536,780 (low) 3,509,401 (high)	3,601,150 (low) 3,565,903 (high)	3,666,691 (low) 3,622,958 (high)	3,733,610 (low) 3,681,086 (high)	PSA
GRDP (in '000) increased	369,712,025	Pesos	411,498,727 (low) 423,283,297 (high)	434,131,157 (low) 452,913,128 (high)	458,008,370 (low) 484,617,047 (high)	483,198,831 (low) 518,540,241 (high)	509,774,766 (low) 554,838,057 (high)	537,812,378 (low) 593,676,721 (high)	Regional Accounts of the Philippines (RAP); PSA
GRDP per capita increased	115,096	Pesos	120,628 (low) 124,547 (high)	124,982 (low) 131,135 (high)	129,499 (low) 138,091 (high)	134,179 (low) 145,416 (high)	139,029 (low) 153,145 (high)	144,046 (low) 161,278 (high)	Regional Accounts of the Philippines (RAP); PSA
Poverty incidence (% of population) reduced	667,900	No. of individuals	574,361 (low) 538,986 (high)	-	470,260 (low) 406,730 (high)	-	405,771 (low) 326,336 (high)		Family Income and Expenditure Survey (FIES); PSA
100% Rice self-sufficiency achieved/surpassed	1,225,283.21	Metric tons	1,293,403.31	1,358,073.48	1,425,977.15	1,497,276.01	1,572,139.81	1,650,746.80	DA MIMAROPA
100% White corn self-sufficiency achieved/surpassed	12,089.43	Metric tons	12,393.40	13,384.87	14,455.66	15,612.11	16,861.08	18,209.97	DA MIMAROPA
100% Pork self-sufficiency achieved/surpassed	91,710.58	Metric tons	94,487.72	96,849.91	99,271.16	101,752.94	104,296.76	106,904.18	DA MIMAROPA
100% Tilapia self-sufficiency achieved/surpassed	983.09	Metric tons	1,500.94	1,651.03	1,816.13	1,997.74	2,197.51	2,417.49	DA MIMAROPA
100% Eggplant self-sufficiency achieved/surpassed	5,476.40	Metric tons	5,922.36	6,070.42	6,222.18	6,377.73	6,537.17	6,700.60	DA MIMAROPA
Percentage of paved national roads (secondary) increased	2,280.02	Kilometers	2,293.80 (low) 2,297.71 (high)	2,297.71 (low) 2,297.71 (high)	2,297.71 (low) 2,297.71 (high)	2,297.71 (low) 2,297.71 (high)	2,297.71 (low) 2,297.71 (high)	2,297.71 (low) 2,297.71 (high)	DPWH MIMAROPA
Households with access to electricity increased	771,555	No. of households	807,285 (low) 827,300 (high)	826,621 (low) 846,092 (high)	846,351 (low) 861,646 (high)	866,527 (low) 882,739 (high)	887,156 (low) 901,573 (high)	908,294 (low) 920,272 (high)	DOE

Sources: PSA, DA MIMAROPA, DPWH MIMAROPA, DOE

PART II

Develop and Protect Capabilities of Individuals and Families

04

**Promote Human and
Social Development**



PROMOTE HUMAN AND SOCIAL DEVELOPMENT

Human capital and social development require not only empowering the citizens that make the economy alive but also creating an environment where human beings can learn and apply their knowledge, skills, and competencies. In order to achieve a vibrant economically functioning society, quality health care services should be made available and affordable, quality education must be accessible, and citizens are equipped with knowledge and skills to earn and generate income.

It is crucial to examine the current social demographic condition of the region and monitor the progress of various social development plans, policies, and programs to ensure achievement of the social development goals.

This chapter assesses the social and demographic milieu and discusses the strategies to be pursued to ensure that all citizens of MIMAROPA, especially those in the disadvantaged sector, shall have long, healthy, and productive lives and are capable to engage in lifelong learning, and thus realize their income-earning potentials.

Sub-Chapter 4.1 Boost Health

By 2028, MIMAROPAns shall enjoy longer and healthier lives, because they live in communities, workplaces, and schools that better support their well-being; they are guided to make healthy choices; and they are assured access, with financial protection, to quality health services when needed.

Assessment and Challenges

Numerous gaps in the health sector surfaced during the pandemic. Households, schools, work places, and business establishments were not ready to address the shocks brought by the COVID-19 pandemic. There is no epidemiology and surveillance functions at the local level. Lack of testing capacity and poor data availability were highlighted. Capacities of primary health care facilities are limited and this resulted to the congestion of hospitals. There are barangays in the region that still have no primary health care facilities, such as rural health units or barangay health stations. Of the 1,459 barangay health stations (BHSs) in the region, 1,250 were established as of year 2020. BHSs are the primary health care facilities that can deliver essential health and nutrition services to pregnant and lactating women, infants, and pre-school children.

Further, issues on human resources for health were aggravated during the COVID-19 pandemic. Health workers were overworked and many succumbed to the disease. One of the interventions of the government is the crafting of a bill on granting mandatory continuing benefits to public, private, and barangay health workers during the pandemic and other future public health emergencies (Senate Bill No. 2421/House Bill No. 10701, 19th Congress). Over 15,000 health workers in MIMAROPA shall benefit from this bill if passed into law.

On the other hand, national health insurance program enrolment rate was recorded at 81 percent in 2021.

Moreover, households in MIMAROPA have increasing access to basic safe water supply and basic sanitation facility over the years with rates recorded at 74.06 percent and 73.36 percent, respectively, in 2021.

Stunting is still prevalent in the region. According to the 2019 Expanded National Nutrition Survey (ENNS), 21.9 percent of children less than 2 years old are stunted. Based on the Operation Timbang results, the prevalence rate of underweight and severely underweight children increased, from 7.6 percent in 2020 to 8.03 percent in 2021. The region recorded a 15.4 prevalence rate on stunted and severely stunted children aged 0-59 months old, which is higher than that of 2020 at 14.7 percent. The province of Oriental Mindoro recorded the highest number children who are stunted and overweight in 2021. (Refer to Chapter 3.1 for more discussion on nutrition.)

The Early Childhood Care and Development in the First 1000 Days (ECCD F1K) Program is one of the government's initiatives to address wasting and stunting among children under five years old.

Heart disease tops the leading causes of mortality in the region. According to the World Bank, the life expectancy of Filipinos is 76 for females and 67 for males in 2020. Non-communicable diseases (NCDs), such as heart disease, hypertension, and cancer, directly affect the life expectancy of MIMAROPAns in 2021. Communicable diseases (CDs), such as influenza, pneumonia, and COVID-19, are also in the top five leading causes of mortality in the same year. Meanwhile, NCDs and CDs are also causes of morbidity among MIMAROPAns.

Meanwhile, in 2022, the region's maternal mortality ratio of 70 in 100,00 live births and infant mortality rate of 12 per 1,000 live births are improving but remain a statistic to be monitored in the health and nutrition sector. Child immunization remains slow, with only 58.64 percent fully immunized children in 2021.

Health and nutrition services must reach more indigenous peoples (IP) communities. The lack of data on the health and nutrition services being accessed by the IPs remains a pressing issue to achieve inclusivity and equity. The province of Occidental Mindoro, having high malnutrition prevalence rates (MPR) based on the 2013 and 2015 ENNS, was one of the selected areas in the country that implemented ECCD F1K in 2019. Most number of malnourished children were found in the IP communities which contributed to high MPRs for the past years. Rural health workers reported difficulties in educating IP

mothers due to food preferences and cultural beliefs and practices.

Based on the results of the two-year implementation of the program in Occidental Mindoro, an improvement in the MPR was achieved through strengthening existing health and nutrition services in the community and integrated delivery of services on psychosocial stimulation, early education, and social services for pregnant women and children under two years old.

Teenage pregnancies are prevalent. In 2020, the number of teenage pregnancies in the region was recorded at 4,713 from 5,277 in 2019. Moreover, a total of 63 young mothers gave birth at age 15 and below in 2020. Palawan and Occidental Mindoro recorded the highest number of young mothers under 15 years of age with both 19 cases. This was followed by Oriental Mindoro with 16, Romblon with four, Puerto Princesa City with three, and Marinduque with two.

Further, a total of 4,670 young mothers from ages 15 to 19 gave birth in the same year. Palawan recorded the highest number of young mothers under 15-19 years of age with 1,585 cases. This was followed by Oriental Mindoro with 1,142; Occidental Mindoro with 878; Romblon with 419; Marinduque with 317; and Puerto Princesa City with 309.

Household size is at 4.1. According to the Philippine Statistics Authority's 2020 Census of Population and Housing, the region's average household size in 2020 was recorded at 4.1, which is an improvement from that in 2015 at 4.4.

The analysis of age and sex composition of MIMAROPA's population based on the 2010, 2015, and 2020 censuses. There is a decrease in the young population group age 0-14. However, this is not sufficient to significantly constrict the base of the pyramid. The young age categories make up the large proportion of the overall structure. This means that the fertility rate of the region has remained high through the years. Although, showing a downward trend on the fertility rates was observed from 1993 to 2022 (4.1 in 1993 and 1.9 in 2022). NDHS showed that the country is already below the replacement fertility level of 2.1 children per woman.

Interestingly, there are more females aged above 80 than males, which confirms the life expectancy data for both sexes. Moreover, there is 14.13 percent of children within the 0-4 age group in 2020; 12.11 percent in 2010 and 10.28 percent in 2020.

With 1.82 percent population growth rate from 2015-2020 and if this rate is sustained up to 2025, MIMAROPA should be able to attain the ideal household size at 4.0 which would result to a positive demographic transition. This would mean that interventions to lower mortality rate, fertility rate, incidences of malnutrition and adolescent pregnancy are effective and population is well-managed.

RDC has been proactively crafting and supporting health policies throughout the years. The RDC MIMAROPA, as the highest policy-making body in the region, passed seven resolutions to address various issues and concerns on health from 2017-2021.

Various issues in the health sector remain to surface at the same time that gaps are increasing. Many are still not covered by the national health insurance program. Mental health cases are increasing but the availability, affordability, and access to prevention and management of mental health cases are yet to be prioritized. Many local government units struggle in health and nutrition service delivery systems and investments on health is still low. Timeliness and availability of different health and nutrition data is still wanting, especially on IPs.

Table 4.1.1 Indicator Matrix

INDICATOR	BASELINE (YEAR)		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Subchapter Outcome 1. Children and adult health improved										
Maternal mortality ratio decreased (per 100,000 live births)	2022	70	<70	<70	<70	<70	<70	<70	FHSIS	DOH
Infant mortality rate decreased (per 1,000 live births)	2022	12 {	<12	<12	<12	<12	<12	<12	FHSIS	DOH
Under-5 mortality rate decreased (per 1,000 live births)	2022	11	11	11	11	11	11	11	FHSIS	DOH
Prevalence of stunting among children under 5 years of age decreased (%)	2021	15.40	12.8	12	11.1	10.3	9.4	8.6	ENNS, OPT results	NNC
Hospital-bed to population ratio	2021	1:1,947	1:1,474	1:1,456	1:1,096	1:1,000 ^a	1:1,000	1:1,000	Admin data	DOH
Proportion of fully immunized children	2021	58.64	95	95	95	95	95	95	NDHS, PSA, FHSIS	DOH
Skilled health personnel to population ratio:										
Doctor	2021	1:26,967	1:20,000	1:20,000	1:20,000	1:20,000	1:20,000	1:20,000 ^b	Admin data	DOH
Dentist	2021	1:35,299	1:50,000	1:50,000	1:50,000	1:50,000	1:50,000	1:50,000 ^c	Admin data	DOH
Public Health Nurse	2021	1:3,999	1:10,000	1:10,000	1:10,000	1:10,000	1:10,000	1:10,000 ^d	Admin data	DOH
Subchapter Outcome 2. Life expectancy improved										
Tuberculosis incidence decreased (per 100,000 population)	2022	554	554	decreasing*	decreasing*	decreasing*	decreasing*		Admin data	DOH
Proportion of households with access to basic safe water supply	2021	74.06	75	78	82	87	92	98	FHSIS	DOH

INDICATOR	BASELINE (YEAR)		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Proportion of household with access to basic sanitation facility	2021	73.36	75	78	82	87	92	98	FHSIS	DOH
Subchapter Outcome 3. Healthy choices and behavior enabled										
Modern contraceptive prevalence rate	2021	34.83 [2021]	69.4	71.6	73.8	76.1	78.3	80.5	FHSIS	DOH, POPCOM, PSA
Adolescent pregnancy incidence decreased	2022	4,713 [2020] 3,993 [2022]*	8% 3,614 ^a	7% 3,220	6% 2,810	5% 2,385	4% 1,942	3% 1,483	Admin data	POPCOM

Sources: DOH MIMAROPA, POPCOM MIMAROPA

Notes: *NEDA estimates based on the previous RDP targets

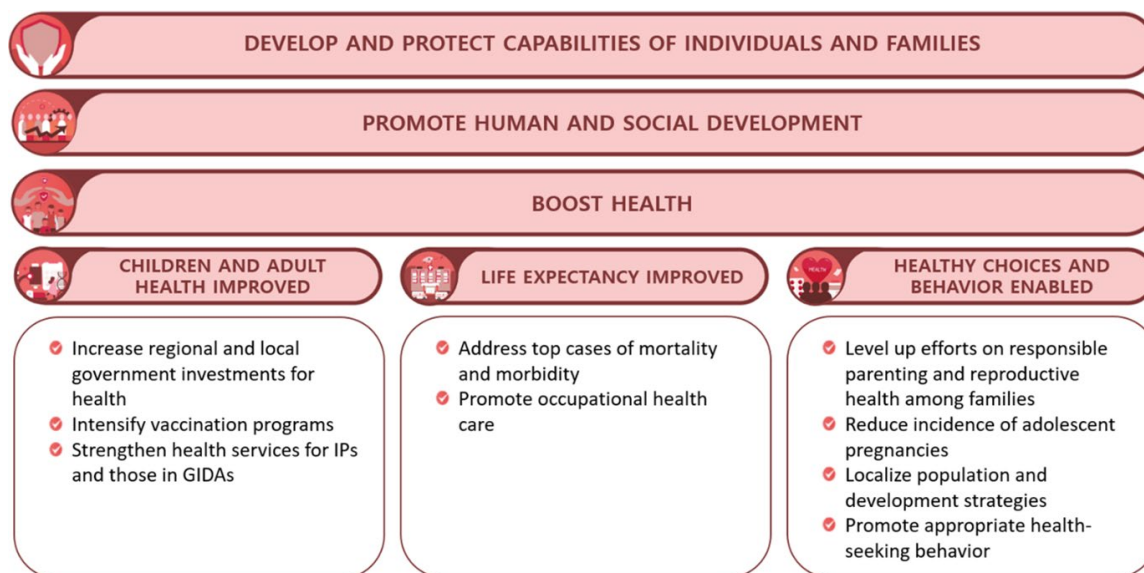
a, b, c, d Philippine standard ratios

e Based on the 2007-2040 population projection by NEDA MIMAROPA

Strategies

The strategy framework contains the key strategies to boost health in MIMAROPA. It emphasizes the need to improve health of children and adult in order to consequently lengthen life expectancy through enabling them to choose healthy practices and behavior.

Figure 4.1.1 Strategy Framework to Boost Health



Children and adult health improved

Increase regional and local government investments for health. The region should invest in the prevention and control of diseases by establishing an epidemiology and surveillance program and disease prevention, among others. Affordable and state-of-the-art health facilities and equipment should be established as well, particularly on specialized treatments (e.g., for dialysis and cancer patients). There should be rehabilitation programs for drug users and centers for geriatric patients.

Improved health provider network would be realized by upgraded government health facilities (e.g., hospitals and rural/barangay health units) through the Health Facilities Enhancement Program; additional health workers through the Human Resources for Health program and Doctor to the Barrios program; and easier referral system through the health e-referral system. Other programs of the government must be appropriately funded to

provide better delivery of health service, such as the Institutionalization of Telemedicine in All Levels of Healthcare, Health Emergency Preparedness and Response Program, and the Environmental and Occupational Health Program.

The stakeholders of the health sector should pursue inter-sectoral collaboration for health; LGUs to change course of their health care system and provide adequate manpower; strengthening of local health systems and service delivery networks between local health facilities and hospitals; and provision of competitive compensation, benefits, and service protection for health workers.

The region is yet to fully implement the Universal Health Care (UHC) Act, which aims to progressively realize universal health care in the country through systemic approach and clear delineation of roles of key agencies and stakeholders towards better performance in the health system; and to ensure that all Filipinos are guaranteed equitable access to quality and affordable health care goods and services and protected against financial risk.

The increased National Tax Allotment of local government units, pursuant to the Mandanas-Garcia ruling of the Supreme Court, should support the devolved functions of national government agencies, especially on health. LGUs are now empowered to establish better healthcare systems, which are expected to result in better delivery of health services for the public.

Accordingly, there shall be gradual and partial re-devolution of health in the LGUs in 2023, pilot implementation of financial integration and initial phase of full devolution of health in 2024, full implementation of UHC in the region by 2025, evaluation of UHC implementation in 2026, mandatory integration of UHC in all LGUs in 2027, and full adherence of LGUs to UHC integration.

An estimated amount of Php 3.7 billion for the 2023 to 2028 in MIMAROPA is proposed to fund the upgrading of Oriental Mindoro Central District Hospital, Sta. Cruz District Hospital in Occidental Mindoro, Ospital ng Palawan, and Culion Sanitarium and General Hospital (refer to Table 4.1.1). The upgrading of hospitals shall entail establishing laboratories, procurement of specialized equipment, rehabilitation and expansion of wards, and hiring of additional human resource.

Moreover, an estimated amount of Php 283 million for the 2023-2028 in Palawan and Romblon is proposed to fund the repair, reconstruction, and rehabilitation of health facilities affected by typhoon Odette (refer to Table 4.1.2).

Intensify vaccination programs. The pandemic showed the need to protect the people from infectious and contagious diseases and boost their immunity. Hence, the government's vaccination programs must be sustained and strengthened. Vaccination drives against COVID-19, tuberculosis, malaria, polio, viral infections, and other diseases should be intensified to attain better coverage and lower mortality rates. Child immunization programs should be promoted as well to combat bouts of negative media exposure in the recent years.

An estimated amount of Php 939 million for the 2023 to 2028 in MIMAROPA is proposed to fund the vaccination program. This program is already devolved to the LGUs (refer to Table 4.1.2).

Strengthen health services for IPs and those in geographically isolated and disadvantaged areas (GIDAs). The region should come up with interventions to address the barriers in accessing health and nutrition services among IPs.

This may include a benchmark assessment of IPs and ethnicity data and information systems on health and nutrition to improve performance tracking among indigenous communities. For example, the Philippine Multisectoral Nutrition Project, with Occidental Mindoro and Romblon of the 235 target areas, provides training on culturally sensitive techniques and practices to support implementation of nutrition and essential maternal and child health interventions and services. To effectively reduce cultural constraints in the delivery of health and nutrition services, the project shall encourage the recruitment and training of IPs to become community health workers in their own communities. Programs such as this that include IPs in the implementation and monitoring should be welcomed more in the region. The project has a requirement of Php 11.57 billion; 77.70 percent of the total cost shall be loaned from the World Bank. The government, particularly the DSWD and LGUs, shall provide a counterpart funding for the rest of the cost requirement.

On the other hand, the ECCD F1K program facilitates access to health services from pregnancy to 35 months old to promote the physical growth and development of the child. There is a need to have ethnicity disaggregation to monitor service delivery to indigenous peoples. Consequently, a systematic collection of relevant health and nutrition data on IPs should be done. Training IPs to become community health workers may enhance access and acceptability of the health and nutrition interventions in the indigenous communities. All LGUs should include the ECCD-F1K in their investment programs to provide responsive caregiving, opportunities for early learning, and child's safety and security to enhance holistic development of young children.

An estimated amount of Php 2.7 million for 2023 to 2028 in MIMAROPA shall be proposed to fund the implementation of IP health strategies, pursuant to the Joint Memorandum Circular (JMC) No. 2013-01, or the "Guidelines on the Delivery of Basic Health Services for Indigenous Cultural Communities/ Indigenous Peoples" (refer to Table 4.1.1). The JMC aims to set the guidelines that shall address

access, utilization, coverage, and equity issues in the provision of basic health care services.

Life expectancy improved

Address top causes of mortality and morbidity in the region. The establishment of an epidemiology and surveillance program and disease prevention is important to address CDs and NCDs in the region. Moreover, the region should establish functional healthcare provider networks and primary care provider for adequate, accessible, and well-distributed health services. There should be an increased access to functional specialty centers for heart, lung, kidney, neonatal, and cancer.

The health sector should intensify its campaign on the fight against NCDs or lifestyle-related diseases. The public should have accessible information that can be tapped by the public such as DOH call centers and public libraries. Health promotion on maternal and adolescent health, oral health program, family health, immunization, and responsible parenthood, among others, should always be present across all media.

The National Safe Motherhood Program (NSMP), which provides women access to quality healthcare for a safer pregnancy and delivery. It aims to promote the health and well-being of mothers of a Filipino family in the region should be strengthened.

An estimated amount of Php 31.5 million for the 2023 to 2028 in MIMAROPA is proposed to fund the conduct of ladderized epidemiology and surveillance training courses for disease surveillance staff of LGUs (refer to Table 4.1.2). The training includes basic epidemiology and surveillance, advance response training on surveillance, and internet and e-data management, networking and communication, and e-health systems.

Promote occupational health care. The World Health Organization defines occupational health as an area of work in public health to promote and maintain highest degree of physical, mental, and social well-being of workers in all occupations. Work places in the government and private institutions should become conducive for physical and mental health and safety at all times. Guidelines and policies on healthy practices in the work places must be in place and implemented.

The region shall consider adopting the establishment of a Regional Mental Health Council which aims to set a standard for patients' referral system, including barangay health stations to rural health units and hospitals pursuant to RA 11036 or the Mental Health Act.

Healthy choices and behavior enabled

Level up efforts on responsible parenting and reproductive health among families. To level up efforts on reproductive health among families, the local and national governments should improve access to and delivery of family planning services through the availability of contraceptive supplies and commodities in health facilities. Programs for responsible parenthood and family planning should be implemented in populous areas in the region, including and GIDAs.

An estimated amount of Php 4.1 million for the 2023 to 2028 in MIMAROPA is proposed to fund activities relative to the conduct of demand generation for Responsible Parenthood and Family Planning program (refer to Table 4.1.2).

Reduce incidence of adolescent pregnancies. The reduction in the incidence of adolescent pregnancies entails multifaceted interventions such as Adolescent Health and Development (AHD) in the Hospital; Teen Ward; Teen Center on Wheels; The Challenge Initiative; the Social Protection Program for Adolescent Mothers and their Children (SPPAMC); integration of comprehensive sex education (CSE) in school curricula; and social behavioral change communication strategies. The LGUs should also come up with activities that shall bring AHD to GIDAs and IP communities.

An estimated amount of Php 4.1 million for the 2023 to 2028 in MIMAROPA is proposed to fund activities relative to equipping adolescents, teachers, parents, service providers, Sangguniang Kabataan Officials, and other stakeholders on adolescent sexuality and reproductive health, CSE, and SPPAMC (refer to Table 4.1.2).

Localize population and development strategies. LGUs should integrate population and development strategies in their local development

plans. Local population development offices (LPDOs) shall also be established to gather, analyze, and disseminate demographic and socioeconomic data that shall serve as input to development planning and policy development.

An estimated amount of Php 5.4 million for 2023 to 2028 in MIMAROPA is proposed to fund activities relative to the establishment of POPDEV databases in LGUs, especially in the 5th and 6th class municipalities (refer to Table 4.1.2). The database is crucial for development planning and policy formulation and monitoring the LGU performance on population management.

Promote appropriate health-seeking behavior.

Government and private sector efforts must focus on strategies that improve the health and nutritional status of children and adults. The agencies concerned and local government units (LGUs) should formulate plans and policies aligned with the national/regional development plan toward the realization of the Universal Health Care Act. There shall be coordination with all health stakeholders to implement interventions such as healthy public policies; healthy communities on nutrition and environmental health; healthy eskwela on sexual, mental,

and reproductive health; and healthy workplaces.

Every individual has to be able to access and correctly apply information about health. Health literacy is key to patient empowerment, healthy behaviors, and proper care for oneself. Aside from IEC materials being disseminated in various all types of media, webinars, podcasts, or any interactive and participative activities online should be explored in order to explain better the top diseases that cause mortality and morbidity in the region. Learning sessions or focused group discussions on health issues such as NCDs and CDs should be included in the 4Ps program and other related programs and activities as well.

An estimated amount of Php 37 million for 2023 to 2028 in MIMAROPA is proposed to fund activities relative to supporting the TeleMedicine project (refer to Table 4.1.2). This includes procurement and maintenance of ICT equipment and related software for continued telemedicine implementation. The project provides for remote access and delivery of individual-based health services through the use of digital technologies for health.

Table 4.1.2 List of Major Programs and Projects to Boost Health

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (P '000)						TOTAL 2023-2028 INVESTMENT TARGET (P '000)
		2023	2024	2025	2026	2027	2028	
Conversion of Oriental Mindoro Central District Hospital to Oriental Mindoro Provincial Hospital	Oriental Mindoro		267,800					267,800.00
Upgrading of Hospital/Building, Sta. Cruz District Hospital into Level I	Occidental Mindoro		300,000					300,000.00
Upgrading of Ospital ng Palawan with new service capabilities; evolve into Level 3 hospital	Palawan	5,000	5,000	5,000	5,000	5,000	5,000	30,000.00
Culion Sanitarium and General Hospital procurement of various equipment for pediatric, surgical, and medical departments	Palawan	523,000	463,100	517,300	633,600	473,800	494,000	3,104,800.00
Establishment of a regional hospital in all provinces	Oriental Mindoro, Occidental Mindoro, Marinduque, Romblon	20,000	20,000	20,000	20,000	20,000	20,000	120,000.00
Rehabilitation and Recover Plan for Typhoon Odette	Palawan, Puerto Princesa City, Romblon	283,102						283,102.00
Implementation of the IP Health JMC and Strategic Plan	MIMAROPA	450	450	450	450	450	450	2,700.00
Conduct Ladderized Epidemiology & Surveillance Training Courses	MIMAROPA	5,000	5,100	5,200	5,300	5,400	5,500	31,500.00
Healthy Workplace Setting in MIMAROPA Region	MIMAROPA	500	600	700	800	900	1,000	4,500.00
Gender Responsive Capacity Development Activities for Adolescents, Teachers, Parents, Service Providers, SK officials and other Stakeholders on ASRH & CSE; SPPAMC; Establishment of ISDN	MIMAROPA	528.6	581.46	639.61	703.57	773.92	851.31	4,078.47
Capacity Development and Establishment of POPDEV Databases to all Local Government Units	MIMAROPA	704.8	775.28	852.81	938.09	1,031.89	1,135.09	5,437.96
Support to TeleMedicine Project	MIMAROPA	10,000	7,000	5,000	5,000	5,000	5,000	37,000.00

Sources: Regional Development Investment Program 2023-2028 of DOH MIMAROPA and POPCOM MIMAROPA

Legislative Agenda

Table 4.1.3 Legislative Agenda to Boost Health

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Supporting passage of house bills on the amendment to the Magna Carta for Public Health Workers (RA 7305) and Barangay Health Workers' Benefits and Incentives Act (RA 7883)	To standardize and provide competitive remuneration to Human Resources for Health (HRH), ensure general welfare, retain talents, and attract competent HRH in public and private health facilities.	DOH, LGU
Amending Sin Tax Law (RA 10351)	To make sure that tax proceeds are used "efficiently, fairly, and effectively" for health initiatives, the government should review the procedures and rules established by the Sin Tax Reform Act of 2012 [Republic Act [RA] 10351].	DOH
Supporting passage of Trans-Fat Free Philippines Act	To recognize the right of people to safe and nutritious food, free from substances like trans fatty acids (TFA) that increase their risk of contracting deadly diseases. It shall protect Filipinos from the threat of death and diseases linked to trans-fat consumption by removing industrially produced TFA from the food supply. Passing this bill shall greatly benefit the Filipinos in living a healthy life away from the chronic diseases brought by trans fatty acids.	DOH, NNC, LGUs
Establishment of a Medical Reserve Corps	To create a pool of medical reserve due to the diverse and shifting needs of communities including those in the healthcare sector. Having medical reserves who would respond to a range of local and national emergencies, disasters and health crisis in the country	DOH and LGUs
Department of Health Specialty Centers Act	The establishment of specialty centers in select hospitals under the direct supervision and control of the DOH that shall address particular conditions and provide specific procedures and management of cases requiring specialized training and equipment	DOH
Adolescent Pregnancy Prevention Bill	A bill providing for a national policy preventing adolescent pregnancies, institutionalizing social protection for adolescent parents, and providing funds therefor.	DSWD, DOH
Encouraging all LGUs to adopt the RDC Resolution No. 2020-072-908	The RDC MIMAROPA, during its third quarter full council meeting held on 04 September 2020, passed a resolution encouraging all LGUs in the region to provide healthy and nutritious food packs during disasters, calamities, and public health emergencies. The LGUs should be able to adopt the policy through an ordinance or SP/SB resolution accompanied by monitoring mechanisms.	LGUs

Sub-chapter 4.2 Improve Education and Lifelong Learning

Accelerating human capital development is essential to attaining sustainable development despite the devastation of the COVID-19 pandemic, especially in the education sector. There are ongoing initiatives in the region to increase access to universal, high-quality education and to provide learning opportunities for all, no matter which life stage, particularly for the most underserved and disadvantaged portion of the population.

To ensure that all Filipinos realize their full potential and keep up with the anticipated socioeconomic shift, transformative lifelong learning opportunities shall be crucial in strengthening and preserving capabilities of families to be economically productive.

This sub-chapter discusses the assessments and challenges in education in the wake of the pandemic and other disasters. Strategies that shall ensure continued access to quality education in the region are also laid down here.

Assessment and Challenges

Widened learning gap due to the COVID-19 pandemic. The imposition of community quarantines and granular lockdowns during the pandemic had profound effects on all school-related undertakings. This has thrust the Department of Education (DepEd) to partner with local telecom companies to ensure educational continuity. On the other hand, schools in the GIDAs used radio stations to air the teacher's lessons. Both students and teachers have experienced some setbacks and instabilities in their daily lives as a result of community lockdowns. Classes were cancelled; final grades were assessed differently. Teachers and students were abruptly prohibited from leaving or returning home, and many had to stay in their homes under quarantine and check themselves for potential infections. Even fatalities occurred as accidents befell teachers and pupils who were returning home.

The DepEd Basic Education Learning Continuity Plan (BE-LCP) aimed to address the challenges brought by the pandemic. The BE-LCP began in SY 2020-2021 as the primary response and commitment in finding means to keep education going for the forthcoming school years while also ensuring the health, safety, and well-being of the students, teachers, and staff during the COVID-19 crisis. The LCP, which has important components on K-12 curriculum adjustments, alignment of learning materials, various delivery modalities, and

pertinent teacher and parent/guardian training for homeschooling, was developed through a series of consultations and collaborations with educational institutions and organizations. In order to adjust to the “new normal” while maintaining adherence to the principles of Sulong EduKalidad and Education Futures, changes to some rules and practices were required.

With two years of learning gap due to remote learning, the returning schoolchildren find it hard to pronounce and read words correctly or perform basic mathematical or arithmetic operations. The public-school teachers have observed significant deficiencies in reading, writing, and numeracy skills based on the preliminary assessment of the first week of face-to-face classes. Furthermore, there are several students who have difficulties expressing themselves in a face-to-face setup. With this, the DepEd has launched the “Learning Recovery and Continuity Plan (LRCP)” to improve the reading, writing, and arithmetic (3Rs) proficiency of students.

Furthermore, classes have been delayed to ensure that the learners and teachers are given time to be properly equipped in adjusting to the new learning environment. During this time both learners and teachers did not undergo the traditional face-to-face setup. As a result, the DepEd also conducted the remedial, enrichment, and advancement classes in the summer of 2020. However, the conduct of curricular and co-curricular activities involving gatherings were prohibited except those conducted online.

The impact of the COVID-19 pandemic placed the 258 programmed projects under Basic Education Facilities Fund (BEFF) program to a halt. These projects amounted to Php 528.22 million and covered the provision of school furniture and the construction, repair, and electrification of classrooms.

Absence of licensed guidance counselors in all public schools. The lack of licensed guidance counselors in public schools became more evident during the pandemic wherein teachers also provided mental counseling and emotional support to pupils/students and parents which are beyond the regular duties and responsibilities of the teacher.

In addition, the profession does not have career progression and most applicants prefer higher salary. These are some things to consider having reasonable amount of guidance counselors in each school. The lack of enough graduates that specialize in guidance counseling is one of the causes of the problem. Also, licensed guidance counselors usually apply in private schools because of more attractive compensation.

Senior High School Voucher Program is implemented in selected areas only. Senior High School Voucher Program (SHS VP) is a financial assistance program wherein subsidies in the form of vouchers are provided to qualified SHS learners in participating private or non-DepEd public SHSs. A total of 109 senior high schools in MIMAROPA implement SHS Voucher Program. The province of Oriental Mindoro recorded the highest number of SHSs with 38. This was followed by Occidental Mindoro with 16 SHSs. On the other hand, Palawan has 12, and both Marinduque and Romblon have 10 SHSs. In addition, Puerto Princesa City provides 12 and Calapan City with 11 SHSs.

The 109 SHSs are located in Puerto Princesa and Calapan cities and other municipalities in the region. Some schools do not implement SHS Voucher Program.

Alternative learning system graduates declined during pandemic. Numerous barriers prevent many Filipinos from enrolling in and completing formal basic education (Grades 1-6 and Years 1-4). Some students drop out, while others live in areas without public schools. Given that every Filipino has a legal right to free basic education, the government established ALS to give everyone the opportunity to access and complete basic education in a way that meets their individual requirements and circumstances.

The pandemic greatly hit basic education; thus, DepEd released Memorandum No. 67, s. 2020, titled “Guidelines on the Implementation of Alternative Learning System Programs in Light of the Basic Education-Learning Continuity Plan,” in order to ensure that education is maintained and in accordance with the most recent Omnibus Guidelines on the Imposed Community Quarantine in the Philippines. Hence, the implementation of Alternative Learning System was modified.

During the peak of COVID-19 in SY 2020-2021, there were 21,940 ALS enrollees in the region, of which 1,378 were completers (6.28%). Of the MIMAROPA provinces, Palawan had the most students enrolled during the academic year (6,003), yet only 373 of them graduated. In SY 2021-2022, there were 23,446 ALS enrollees in the region, of which 9,327 or 39.78 percent are completers. Palawan registered the highest enrollees during the academic year which totals to 6,971 with only 1,615 or 23.17 percent completers. This simply demonstrated how severely the pandemic’s impacts have affected the learning gap among students in MIMAROPA.

Support for the education sector has also come from the private sector. Organizations in the private sector. The Taw Kabui for a Child, Inc, in collaboration with DepEd, and Palawan Aid International’s Kabatangan View Schools in Palawan offered community-based schooling for individuals with disability and underprivileged IPs. The I am A Leader Foundation in Oriental Mindoro also ran initiatives to support the upkeep of educational buildings, including support for Brigada Eskwela events and the delivery of school supplies and health kits.

Enrolment in HEIs in the region steadily increased since 2017. There was an observed growth in the number of enrollees in State Universities and Colleges (SUCs) and Local Universities and Colleges (LUCs) compared to private sector enrolment that was recorded with a declining share.

Based on the CHED Statistical Bulletin, disciplines with high enrolment in 2021 consisted of Business Administration and related fields, Education, Science and Teacher Training, Criminal Justice Program, Information Technology, and Engineering. Programs with high enrolment include Business Administration, Secondary Education, Criminology, Information Technology, and Hospitality Management.

Number of HEI graduates decreased. Disciplines with high number of graduates in 2021 include Business Administration and related fields, Education, Science, and Teacher Training, Information Technology, and Engineering. Programs with high number of graduates were Business Administration, Information Technology, Secondary Education, Elementary Education, and BS Criminology.

On June 4, 2021, the RDC MIMAROPA endorsed the following priority courses of the region: 1) Bachelors in Secondary Education, 2) Bachelors in Elementary Education, 3) Bachelor of Science in Accountancy, 4) Bachelor of Science in Accounting Information System, 5) Bachelor of Science in Nursing, 6) Bachelor of Science in Social Work, 7) Bachelor of Science in Medical Technology, 8) Bachelor of Science in Psychology, 9) Bachelor of Arts in Communication, 10) Bachelor of Science in Development Communication, 11) Bachelor of Science in Entrepreneurship, 12) Bachelors in Physical Education, 13) Bachelors in Culture and Arts Education, 14) Bachelors in Technical-Vocational Education, 15) Bachelors in Special Needs Education, 16) Bachelors in Early Childhood Education, 16) Bachelor of Science in Exercise and Sports Sciences, 17) Bachelor of Science in Midwifery, and 18) Bachelor of Science in Business Administration (majors in Financial Management, Marketing Management, Human Resources Management, Operations Management and Business Economics). Currently, courses that are being offered by most HEIs in the region include 1) Secondary Education, 2) Business Administration, 3) Elementary Education, 4) Information Technology, and 5) Criminology.

The number of HE faculty with earned master's and doctorate degree was recorded to increase until 2020 but declined in 2021. Faculty members were provided with faculty development grants, with those earning master's degree having the highest share among the approved grantees for the program in 2020. This was followed by those earning their doctorate degrees, for dissertation, and thesis.

Accreditations of HEIs were conducted to ensure quality of institutions and programs being offered. As of 2021, 63 percent of HEIs have Certificate of Program Compliance (COPC); all SUCs have programs accredited by the Accredited Agency of Chartered Colleges and Universities in the Philippines (AACUP); those with designated Centers of Excellence (COE) in the region include Teacher Education Program of Palawan State University and Fisheries Program in Western Philippines University. There are no Centers of Development (COD) yet in the region.

Sufficient development activities (CapDev) activities and learning mechanisms were provided to HEIs. Various capability development activities on developing their learning management systems (LMS) as well as policies on flexible learning mechanisms to HEIs in the region. CHED MIMAROPA facilitated the submission of SUCs Smart Campus Proposals to the DICT. All SUCs submitted their proposals which focus on campus networking, LMS, and learning information systems to address the impact of disruptions caused by external factors.

The Free Education Law or the Universal Access to Quality Tertiary Education Act of 2017 (Republic Act No. 10931) aims to provide adequate funding and such other mechanisms to increase the participation rate among all socioeconomic classes in tertiary education. The Commission on Higher Education (CHED) and Unified Financial Assistance System for Tertiary Education Act (UNIFAST) continued the release of funds for the Tertiary Education Subsidy (TES), TES-Tulong Dunong Program (TDP), and Free Higher Education (FHE).

Under the TES program, there was a total of 19,704 grantees during the first semester of SY 2020-2021 and 18,655 grantees during the second semester of the same school year. Total released funds for both semesters amounted to Php 965 million.

Under the TES-TDP, there were 3,896 grantees during the first semester of SY 2020-2021 and 2,394 grantees during the second semester of the same school year. The total released funds for both semesters amounted to Php 47 million.

Under the FHE program, there was a total of 59,037 grantees during the first semester of SY 2020-2021 and 54,962 grantees during the second semester of the same school year. Total released funds for both semesters amounted to Php 742 million.

Two state colleges were upgraded to state universities. The CHED certified the compliance of Mindoro State College of Agriculture and Technology (MinSCAT) with the requirements for its conversion into Mindoro State University (MinSU) by virtue of Republic Act No. 10596 on March 16, 2021, after successfully passing through a series of rigorous evaluations and assessments. The MinSU is the first state university in the province of Oriental Mindoro.

On July 30, 2021, Republic Act No. 11587 was signed into law by President Rodrigo R. Duterte. The law aims to convert the Occidental Mindoro State College located in San Jose, Occidental Mindoro, into a state university to be known as the Occidental Mindoro State University. The OMSC has yet to comply with the requirements for the grant of university status.

On May 27, 2021, President Duterte signed into law RA No. 11551, an act integrating labor education in the tertiary education curriculum. All public and private HEIs shall integrate labor education as part of an elective course and hold a labor empowerment and career guidance conference, which graduating students shall attend. Labor education shall teach basic knowledge on labor rights and other skills relating to negotiation and fostering smooth interpersonal relations in the workplace.

On August 22, 2019, President Duterte signed RA No. 11396 or the “SUCs Land Use Development and Infrastructure Plan (LUDIP) Act”, wherein all SUCs are required to submit their LUDIP to the CHED and follow their development plans for all future infrastructure projects.

Some areas in research and development concerns in the region must be addressed. According to the DOST MIMAROPA, this includes the need to strengthen partnership between the academe and industry in order to develop technologies aligned to the needs of the province or region. The agency identified public HEIs to be transformed into research universities with capacity building activities to be provided and more sensible proposals produced to avail more funding opportunities. As reported in the National Expenditure Programs from 2019 to 2021, SUCs posted a slight increase in their research outputs, and researches that are utilized by the industry.

Lifelong learning promotes a broader skillset which goes beyond narrow technical skills for a particular job and includes core work skills and transversal skills that are becoming a priority for employers. It also prepares graduates to take on more challenging and demanding positions in the future.

The Technical-Vocational Education and Training (TVET) is widely recognized as a pivotal step to equip individuals with necessary skills and competencies in order for them to become more competitive and employable. Beyond employability, it also enhances the chances to gain access to relevant jobs, become more economically active and

productive and be lifted out of poverty or reduce vulnerability to income poverty.

TVET enrollees and graduates decreased in 2020 but bounced back in 2021. TVET enrolment and graduates declined across all modes of delivery except for the Monitored mode. There was also a decrease in number of enrollees and graduates under TVET scholarship programs. Sectors with high enrolment and graduates were 1) Agriculture, Forestry and Fishery, 2) Automotive and Land Transportation, and 3) Tourism.

According to the 2021 TVET statistics, there is also an increasing trend of enrolment and graduates on Heating, Ventilation, Airconditioning and Refrigeration, Information and Communication Technology (ICT), AFF, and Automotive and Land Transportation. Further, the region also has 292 accredited assessment centers, 570 assessors, and 640 registered programs. There are 157 registered TVET providers with highest share from the private sector, and TTIs dominating the public TVET institutions.

Students were encouraged to register and enrol for free courses through the eTESDA or the TESDA Online Program because of the implementation of community quarantines during the COVID-19 pandemic. The eTESDA learning portal offers courses on agriculture, automotive, electronics, entrepreneurship, and heating, ventilation, air conditioning and refrigeration. Enrollees can also gain access to learning materials on human health/health care, ICT lifelong learning skills, maritime, social, community development and other activities, tourism, and TVET.

TESDA also offered scholarship programs such as the Private Education Student Financial Assistance (PESFA) for marginalized students, Special Training for Employment Program (STEP) for students who desire to acquire entrepreneurial skills or setting up their own livelihood, Rice Extension Services Program (RESP), which provides free skills training for qualified farmers, and Training for Work Scholarship Program (TWSP) to address job skills mismatch. UAQTEA also provides inclusion of free education for TVET students including free competency assessment, allowance and toolkits. In support of the government's effort to bolster the resilience of the Philippine economy amidst the health and economic crises, the Bayanihan 2 enacted into law on 11 September 2020 appropriated funding to cover qualifications/training programs such as TWSP and STEP.

Targets

Table 4.2.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Net enrolment rate increased	2021								Admin data	
Kindergarten		66.15	78.05	82.32	86.59	90.86	95.13	99.4	99.4	DepEd
Elementary		86.21	89.47	91.38	93.28	95.19	97.09	99	99	DepEd
Secondary (Junior High School)		80.76	87.28	88.62	89.97	91.31	92.66	94	94	DepEd
Secondary (Senior High School)		50.2	67.01	70.61	74.21	77.81	81.4	85	85	DepEd
Gross enrolment rate increased	2021								Admin data	
Kindergarten		90.02	90.66	92.53	94.4	96.27	98.13	100	100	DepEd
Elementary		92.92	94.81	95.85	96.89	97.93	98.96	100	100	DepEd
Junior High School		98.37	104.01	105.21	106.4	107.6	108.8	110	110	DepEd
Senior High School		79.96	105.33	110.26	115.2	120.13	125.07	130	130	DepEd
Completion rate increased	2021								Admin data	
Elementary		90.55	92.97	93.78	94.58	95.39	96.19	97	97	DepEd
Junior High School		84.39	86.12	86.7	87.27	87.85	88.42	89	89	DepEd
Cohort survival rate increased	2021								Admin data	
Elementary		90.97	99.98	102.99	105.99	108.99	112	115	115	DepEd
Junior High School		85.02	89.51	91.01	92.51	94.01	95.5	97	97	DepEd
School leaver rate decreased	2021								Admin data	
Elementary		2.20 (2020-21)	1.75	1.6	1.45	1.3	1.15	1	1	DepEd
Junior High School		5.31 (2020-21)	4.07	3.66	3.24	2.83	2.41	2	2	DepEd
Retention rate increased	2021								Admin data	
Elementary	SY 2021- 2022	100.03	100.59	100.87	101.16	101.44	101.72	102	102	DepEd
Junior High School	SY 2021- 2022	104.47	106.05	106.84	107.63	108.42	109.21	110	110	DepEd
Teacher-pupil ratio decreased	2021	1:24	1:24	1:24	1:24	1:24	1:24	1:24	Admin data	DepEd
Teacher-student ratio decreased	2021	1:25	1:25	1:25	1:25	1:25	1:25	1:25	Admin data	DepEd
Graduation rate increased	2021								Admin data	
Elementary		98.08	98.8	99.04	99.28	99.52	99.76	100	100	DepEd
Junior High School		96.82	98.01	98.41	98.81	99.21	99.6	100	100	DepEd
Proportion of learners achieving at least "Nearly Proficient" in the National Achievement Test (NAT) (Grades 6, 10, 12)	2021								Admin data	DepEd
Elementary	SY 2017- 2018	13.18	38.61	47.09	55.57	64.05	72.52	81		DepEd

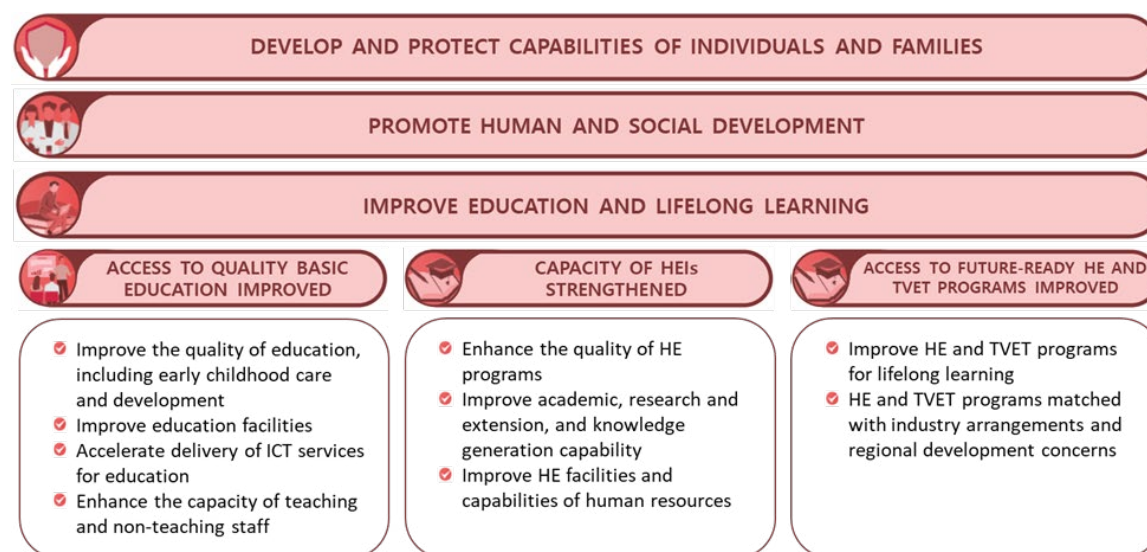
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Junior High School	SY 2017-2018	32.54	51.46	57.77	64.08	70.39	76.69	83		DepEd
Number of higher education graduates increased	2021	5,066	5,319	5,585	5,865	6,158	6,466	6,789	CHED report	CHED
HE faculty with master's degree increased	2021	130,414	136,935	143,781	150,971	158,519	166,445	174,767	CHED report	CHED
HE faculty with doctorate degree increased	2021	1,316	1,382	1,451	1,523	1,600	1,680	1,764	CHED report	CHED
Percentage of graduate students enrolled in CHED- or RDC-identified priority programs increased	2021	97	98	99	100	100	100	100	SUCs NEP PREXC	CHED
HEIs with accredited programs increased	2021									
Certificate of Program Compliance		63%	68%	73%	78%	83%	88%	93%	CHED report	CHED
Number of TVET enrollees increased	2021	56,581	59,449	60,638	61,850	63,087	64,439	65,636	TVET statistics	TESDA
Number of TVET graduates increased	2021	54,177	53,503	54,573	55,665	56,778	57,913	59,072	TVET statistics	TESDA
Number of graduates from TESD scholarship programs increased	2021	18,327	18,760	19,135	19,518	19,908	20,306	20,712	NEP PREXC (regional data)	TESDA
Number of TESDA Technology Institutions (TTIs) graduates increased	2021	--	7,206	7,350	7,497	7,647	7,800	7,956	NEP PREXC (regional data)	TESDA
Number of TVET persons assessed	2021	21,985	23,546	24,017	24,497	24,987	25,487	25,996	TVET statistics	TESDA
Number of TVET scholarship beneficiaries increased	2021	18,327	18,760	19,135	19,518	19,908	20,306	20,712	TVET statistics	TESDA
Number of assessors increased	2021	570	74	76	77	79	81	82	TVET statistics	TESDA
Number of registered programs increased	2021	640	126	129	132	134	137	140	TVET statistics	TESDA

Sources: DepEd MIMAROPA, CHED MIMAROPA, and TESDA MIMAROPA

Strategies

Towards the ultimate goal of ensuring transformative lifelong learning for all, several areas must be addressed not only by the government but, more importantly, also by the private sector and other stakeholders.

Figure 4.2.1 Strategy Framework to Improve Education and Lifelong Learning



Access to quality basic education improved

Improve the quality of education, including early childhood care and development. Early childhood is the most formative and crucial stage of a person's growth and development (see Chapter 4.1). For children who are enrolled in a day care center, it is important to continuously provide them with supplementary feeding. A set of meal plan that is common across the day care centers within the city/ municipality should be implemented. Likewise, LGUs should provide budget for day care facilities (learning materials, storage units, and other cognitive displays).

Pupil's vocabulary should be increased to thousands of words which include nouns, verbs, adjectives, and adverbs. Basic grammatical principles should be taught as well until more complex rules are mastered. Further, mathematical relationships, degrees, and comparisons employing numbers and symbols should be taken beyond the sphere of arithmetic and the four operations. It is crucial to improve reading, writing, and arithmetic (3Rs) proficiency of learners

particularly in Grades 4 to 6 or the upper primary years when pupils should be progressing beyond the literacy and numeracy skills.

The most disadvantaged students have been disproportionately impacted by the disruption to education systems caused by the COVID-19 pandemic, which has the potential to have dramatic and long-lasting effects. To close learning gaps and provide seamless, uninterrupted educational routes for all students, it is necessary that the government provides tutorial and remedial classes. Some of the medium- and long-term solutions are to address the lack of classrooms and review the possibility of institutionalizing blended learning modalities.

Strengthening the early childhood education shall get every Filipino child to be future ready. Through the Universal Kindergarten under the K to 12 program, Filipino children now have access to the early childhood education. Starting at the age of 5, children start to attend schooling and give them the means to slowly adjust to formal education. According to research, children who underwent Kindergarten have better completion rates than those who did not. Kindergarten students learn alphabet, numbers,

shapes, and colors through games, songs, and dances, in their Mother Tongue. The Mother Tongue-Based Multilingual Education (MTB-MLE) is the government's banner program for education as a salient part of the implementation of K to 12 Basic Education program, which starts from Kinder and ends at least Grade 3.

Day care centers play a vital role in the development of children's well-being. To ensure effective and efficient delivery of day care services, day care centers and workers are being assessed and accredited. In 2021, the Department of Social Welfare and Development (DSWD) reported 352 assessed and accredited daycare centers and workers from 224 in 2016. This surpassed the targets from 2020 to 2022. Hence, the region needs to expand these services also to the geographically isolated and disadvantaged areas in the region. It is necessary to add more day care centers and provincial accreditors to widen the coverage of quality education and early childhood development.

To address the nutritional needs of students to ensure physical and mental capacity to complete study, the Department of Education (DepEd), through the Bureau of Learners Support Services—School Health Division (BLSS—SHD), must continue to implement the School-Based Feeding Program (SBFP). Studies have shown that malnourished children have poor academic performance. If only to reap the full benefits of education, health and education should ideally work in tandem.

Improve education facilities. Related to addressing learning gaps, the region should pursue the Expanded School Building Program to cover more GIDAs. And as the region is often hit by typhoons, it needs to quickly report and assess the damages and rehabilitate education facilities and bring back the school building to its original or previous condition especially because school facilities serve as temporary shelter for evacuees during a disaster. Super Typhoon Odette, for example, brought torrential rains, violent winds, landslides, and storm surges in the provinces of Palawan in 2021. The total cost of estimated damages under the education sector reached Php 694.24 million. A total of 1,493 classrooms were damaged. There were 172 classrooms that were totally damaged and 1,321 classrooms that were partially damaged and needed major repair. The city of Puerto Princesa, municipalities of Roxas, San Vicente, Linacapan, Magsaysay, Agutaya, Kalayaan,

and Cagayancillo were most hit, and many schools needed to be repaired (Refer to Chapter 13 for further details on improving educational facilities).

While it is necessary to improve the infrastructure facilities, it is equally important to ensure the wellness of the pupils. This can be done by implementing the following activities: a) feeding program for pre-school and grade school children; and b) conduct of orientation on Comprehensive Sexual Education and Violence Against Women and Children among pupils in the hope to prevent sexual abuse at home.

Accelerate delivery of ICT services for education. During the height of the pandemic, the education sector was compelled to implement a blended learning strategy to ensure that pupils and students shall experience continuous learning despite series of lockdowns. Given the situation, it is crucial to provide ICT equipment to all teaching personnel toward the institutionalization of blended learning scheme. It is ideal that DICT's programs continue to provide connectivity programs that prioritize learners in GIDAs, academic institutions, and government offices. Programs such as scholarships and specialized ICT trainings would also help deliver learning and teaching opportunities, all supported by a fully functioning and reliable national broadband service.

The DepEd proposed the provision of learning equipment and computers such as desktops, notebooks, and laptops, including the cost of electricity amounting to Php 1.589 million in the seven division schools of MIMAROPA. This aims to provide powerful and modern devices that learners can use for advanced learning and to ensure the effectiveness of the teaching and learning of science, mathematics, and tech-voc literacy.

Enhance the capacity of teaching and non-teaching staff. Improving the capacity of the teaching and non-teaching workforce is vital in the delivery of quality education. Education stakeholders would benefit from programs and capacity-building interventions on open educational resources (OER), gamification of learning, and other new pedagogical practices that enhance the competencies of teachers. Pre- and in-service training of teachers shall be revisited to ensure that capacity-building programs are up-to-date, agile, and responsive to emerging skills and other needs. The Excellence in Teacher Education Act (RA 11713) shall be fully implemented.

This law strengthens the Teacher Education Council, establishes scholarship for students in the teacher education program, and institutionalizes the National Educators' Academy of the Philippines (NEAP) as provider of quality professional development programs for in-service teachers, school leaders, and other teaching-related personnel in all public and private basic education institutions.

DepEd Order No. 32, s. 2011, provides policies and guidelines to capacitate DepEd personnel and staff. Given the pandemic, however, many of the teachers and non-teaching staff were not prepared to the blended modalities in teaching and online enrolment and registration. The government needs to provide Professional Development and Capacity Building Program for Teachers and Non-Teaching Staff to ensure effective and efficient transition to blended learning.

An estimated amount of Php 161 million for the 2023 to 2028 in MIMAROPA was proposed to fund the continuing professional development of the teaching and non-teaching personnel in the seven division offices in the five provinces and two cities of the region.

Capacity of HEIs strengthened to become globally competitive and locally responsive

Enhance quality of HE programs. Academic programs of HEIs in the region must be constantly monitored and evaluated in order to become more relevant and responsive to the needs and opportunities in the region and industries. Thus, HEIs and their programs shall be aligned with international standards which can be assured through accreditation (i.e., COPC, AACCUP, COE, COD). Stakeholders in the region shall be tapped to participate in the identification or enhancement of program offerings and in curriculum development. HEIs shall also forge partnerships with the Philippine Regulations Commission (PRC) in order to enhance their programs and capabilities as institutions. According to a 2021 PIDS study, more granular indicators of HEI performance must be developed and regularly published to guide households on whether to pursue HE, and which HEIs or programs to enrol based on timely and accurate information on schools and programs.

Improve academic, research, and extension and knowledge generation capability. Outputs in higher education shall be delivered efficiently and effectively in areas of academic, research, and extension. HEIs shall be encouraged to form joint researches among other HEIs for both basic and applied research and program offerings for resource and knowledge complementation. Strengths and specialties of SUCs in the region shall also be capitalized (e.g., agriculture and fisheries for MinSU, OMSC, MSC, and RSU; health and teacher education for PSU; environmental protection and green technology for WPU). Research productivity shall also be enhanced through crafting of sensible proposals and scaled up through government and industry research funding.

Improvement of innovation in universities and colleges shall also be promoted in terms of R&D, idea commercialization, product development, formulation of intellectual property policies, and knowledge and technology transfer (refer to Chapter 10 for further details on proposed strategies for R&D).

Grants-in-aid programs shall also be strengthened to enhance the capacity of research fellows to push through with basic and applied research across disciplines from offered programs in the region.

Improve HE facilities and capabilities of human resources. Enhancement of education services shall be coupled with improvement of facilities in education institutions. LUDIPs of SUCs need to be fully implemented to address infrastructure needs and upgrading. A total of 151 LUDIP projects amounting to Php 14.6 billion was submitted to the Public Investment Program Online System (PIPOL) in 2022. An allocation of 100 to 150 million pesos per SUC annually shall be sufficient to implement projects under the LUDIP. This shall also be supported with an inventory of all infrastructures and real estate assets.

HEIs are still encouraged to push for flexible learning which would require institutions to be connected through ICT infrastructure. DICT shall be tapped to bridge all HEIs and enable SUCs main campuses and satellite campuses to be connected.

To contribute to the quality of HE programs, human resources of HEIs shall also be improved through upgrading of qualifications and capabilities. The Faculty Development

Program shall be expanded and strengthened simultaneous to capacity development activities for non-teaching staff.

Access to future-ready HE and TVET programs improved

Improve HE and TVET programs for lifelong learning. In some cases, HE and TVET graduates and workers choose to change their fields and develop new skills. The establishment of institutions on future skills or adult learning shall encourage reskilling and upskilling to enable workers and job seekers to benefit from emerging opportunities. These institutions shall also provide research, training, and accreditation for adult education.

Improving the quality and relevance of TVET also requires TVET teachers to improve their professional skills and competencies to apply new teaching and learning methods while maintaining high level of knowledge and skills.

TESDA shall provide more support to enterprise-based trainings (EBTs) as specialized skills are produced with quality in these institutions. Competency-based trainings (CBTs) shall be continuously strengthened since there is an increasing number of enrollees recorded in this type of institution.

Agri-entrepreneurship must also be integrated in TVET course offerings in the region because there was an observed large share of enrollees and graduates coming from the AFF sector. This shall improve trainees' entrepreneurial skills which in turn shall land them on more profitable avenues. These programs shall complement those that cater to tourism and hospitality industries.

HE and TVET programs matched with industry arrangements and regional development concerns.

The HE and TVET programs being provided by HEIs and TVIs need to be at par with international and domestic industry needs and regional and local development concerns (refer to Chapter 6 for further details on employability).

There is a need to improve the labor market information system covering all sectors at the regional and provincial level. Skills gap shall be evaluated and acquired skills validated by TVIs in order to regularly track the progress and identify the needs of prospect and current enrollees and graduates.

A tri-focalized system of education shall also be established for pathway harmonization to guide students and workers to accurately align their needs and decide for more appropriate paths. The regional group shall also be included in the implementation of the PQF. An integration or sharing of databases of graduates from DepEd to TESDA to HEs shall facilitate the different pathways of the education sectors.

The linkage between and among the academe, governance institutions, and industries shall be continuously enhanced to satisfy the demand-driven needs and conform with international and local standards and technology.

Strengthen government-industry-academe linkage. Government agencies should continue partnerships with higher education institutions (HEIs) in hosting programs, activities, and conduct of programs and projects relative to R&D and technology development. HEIs may also be tapped by government agencies in providing technical assistance and source of knowledge relative to R&D and developed technologies. The RRDIC shall continue to function to promote the regions' priority R&D agenda and guide in fostering innovation.

Table 4.2.2 List of Major Programs and Projects to Improve Education and Lifelong Learning

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (P '000)						TOTAL 2023-2028 INVESTMENT TARGET (P '000)
		2023	2024	2025	2026	2027	2028	
School Based Feeding Program (SBFP)	Regionwide	276,771	290,609	302,234	314,323	323,753	333,465	1,841
Last Mile School	All Provinces and Puerto Princesa City	1,826	1,826	1,826	1,826	1,826	1,826	10,956
Indigenous Peoples Education (IPEd) Program	Occ. Mindoro Or. Mindoro Palawan Puerto Princesa City Romblon	4,299	4,299	4,499	4,499	4,799	4,799	27,198
Alternative Learning System (ALS) Program	Regionwide	7,050	7,050	7,050	7,500	7,500	8,000	44,150
Madrasah Education Program	Palawan and Puerto Princesa City	8,614	10,376	10,376	10,800	10,800	11,300	62,266
Monitoring and Evaluation of Programs and Higher Education Institutions	Regionwide	820	1,200	1,300	1,400	1,500	1,600	7,820
Institutional Monitoring and Evaluation	Regionwide		500	600	700	800	900	3,400
Technical Education and Skills Development Policy Program	Regionwide	2,628	2,759	2,897	3,042	3,194	3,354	17,875
Technical Education and Skills Development Regulatory Program	Regionwide	1,432	1,503	1,578	1,657	1,740	1,827	9,740
Technical Education and Skills Development Services Program	Regionwide	645,462	647,401	392,468	399,962	385,920	388,685	2,859,900

Sources: *Regional Development Investment Program 2023-2028 of DepEd MIMAROPA, CHED MIMAROPA, and TESDA MIMAROPA*

Legislative Agenda

Table 4.2.3 Legislative Agenda to Improve Education and Lifelong Learning

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Magna Carta of Daycare Workers	The bill aims to increase the benefits and allowances being received by daycare workers to improve their social and economic welfare. Daycare workers play an important role because they provide preschool education and social development services to children which are crucial in child development.	Congress, DSWD, LGUs
Support the Congressional Review of the K-to-12 program and the Second Congressional Commission on Education	The congressional review of the K-12 program shall aim to, among other objectives, improve the employability of graduates, their critical thinking and problem-solving abilities, and their capacity to be productive and engaged citizens of the nation. Meanwhile, Republic Act No. 11899 lapsed into law in 2022 and it created the Second Congressional Commission on Education (EDCOM II); it shall conduct a national review of the country's education sector after the COVID-19 pandemic exacted a heavy toll on learning.	DepEd, Congress
Expansion of the Government Assistance to Students and Teachers in Private Education (GASTPE) to Elementary Level	The measure aims to extend the current government assistance for high school students and teachers in private education to include students in private schools from kindergarten through grade six in recognition of the complementary role of private schools in providing basic education to Filipino learners. Additionally, it is suggested that the Teacher Salary Subsidy (TSS) be extended to include elementary school teachers working in private institutions.	
Revised Higher Education Act of 2022 (Amendment of RA 7722)	The proposed amendment seeks to strengthen CHED by creating necessary offices that shall enable it to meet the added mandates (cover sports development, supervision and regulation of higher education programs offered by LUCs, developing common standards in accrediting agencies, internationalization of higher education institutions, establishment of national registry for academic information and mobility, and strengthening quality assurance).	CHED
Lifelong Learning Development Framework (LLDF) Act	The proposed development shall describe and set standards for the development of action components and desirable success measures for the promotion and implementation of lifelong learning in cities, municipalities, and lifelong educational institutions.	DepEd, CHED, TESDA, DOLE, PRC, LGUs

Sub-chapter 4.3 Establish Livable Communities

As mandated by the 1987 Constitution, urban land reform and housing shall be undertaken to make affordable and decent housing and basic services available to underprivileged and homeless citizens in urban centers and resettlement areas. Security of tenure, availability of services, affordability, habitability, accessibility, location, and cultural adequacy shall constitute adequate housing as per the Advisory on the Right to Adequate housing and Humane Treatment of Informal Settlers issued by the Commission on Human Rights of the Philippines.

It was also stated in the National Urban Development and Housing Framework that the housing component does not solely stand to achieve the favorable living conditions of a household. Rather, it serves as an entry point through which integration of settlements and urban systems can occur.

The environment and natural resources sector plays a vital role in regional development as it provides various ecosystem services that support the growth of agriculture, fisheries, industry, and services sectors. Nonetheless, this chapter presents the region's efforts to improve the quality and maintenance of water, air quality, expand forest cover, enhance biodiversity conservation, and upgrade waste management practices to establish livable communities and promote human capital and social development of MIMAROPAns.

Assessment and Challenges

Generally, the quality of the environment and natural resources of the region showed mixed performance based on the assessment of the previous regional development plan. Slight improvements in environmental quality have been noted while environmental compliance in terms of air, water, and solid waste management still needs to be improved.

Air quality maintained within ambient air quality guidelines. Over the past years, the recorded air quality of the two monitored cities (Puerto Princesa City and Calapan City) from 2017-2021 was consistently within the standard air quality guidelines ([Particulate Matter] 2.5: 50 micrograms per Normal cubic meters (ug/Nm³) for average 24-hour short-term monitoring and 25 ug/Nm³ for average one-year long-term monitoring). The monitoring station in Calapan City includes samplers that measures PM₁₀ and Total Suspended Particulates (TSP), while the Puerto Princesa City monitoring network measures (PM₁₀ and PM_{2.5}).

There are three sources of particulate matter in the region. These are the mobile, stationary, and area sources. Most of the emission on this particular

parameter come from power plants. The EMB usually monitors the said parameter through the submission of emission test reports and ambient air quality monitoring reports.

Ambient air quality monitoring is also conducted during Multi-partite Monitoring Team (MMT) activities spearheaded by the MGB and EMB. Sampling stations are strategically identified using scientifically-based siting criteria procedures. Air Quality Sampling equipment such as Hi-volume samplers are used to collect samples for Total Suspended Particulates (TSP), Particulate Matter for 10 microns / 2.5 microns (PM₁₀/PM_{2.5}).

Per RA 8749 of the Philippine Clean Air Act of 1999, all potential sources of air pollution must comply with the provisions of the law wherein all emissions must be within the air quality standards. For a well-represented air quality data in the region, upgrading/installation of additional monitoring systems and stations in capital towns in the region namely, Boac, Marinduque, Mamburao, Occidental Mindoro, and Romblon, Romblon to monitor air quality are needed.

Water quality remains a big challenge in the region. From 2017-2021 the priority water bodies being monitored such as the: 1) Calapan River; 2) Madugo River, and Pinamalayan River in Oriental

Mindoro 4) Tagburos River in Puerto Princesa failed to achieve the standard water quality particularly in terms of biochemical oxygen demand (BOD), dissolved oxygen (DO), phosphate (PO₄), and fecal coliform (FC). Majority of these priority rivers are considered catchment basin of wastewater from commercial and residential establishments wherein high volume of solid waste, plant materials, and other floating materials in rivers increases the BOD levels. The increasing population and urbanization may also lead to generation of more wastewater from domestic, agriculture, and livestock sources which could potentially worsen water quality.

In 2021, another water quality management area (WQMA) was designated in the region, which is the El Nido-Bacuit Bays. WQMAs are bodies of water deemed to have an important developmental value but was observed to have been affected by economic development thereby needing rehabilitation and restoration.

Continuous water quality monitoring is being done in tourism destination areas such as the Sabang Bay in Puerto Galera, Coron Bay, and Bacuit-El Nido Bays in Palawan. Sabang Bay WQMA includes the monitoring of the whole stretch of Sabang Bay, San Isidro Bay (White Beach), Muelle Bay and the outfall at Timbugan in Puerto Galera. Coron Bay WQMA includes the monitoring of the whole stretch of Coron Bay including 16 tourist island destinations within the bay. Bacuit-El Nido Bay WQMA includes the monitoring of the coastal waters of El Nido Bay (to include the Nacpan Beach, Calitang and Lio Beach), Bacuit Bay coastal waters, 20 tourist island destinations within Bacuit Bay, El Nido Estero and all outfalls along Bacuit Bay. Other recreational waterbodies monitored under the Beachwatch Program are as follows: Honda Bay, Puerto Princesa Bay, Mangarin Bay and Calapan Bay.

Low compliance on RA 9003 or the Ecological Solid Waste Management Act of 2000. As a tool in managing solid wastes, LGUs are required to formulate and implement their 10-year Local Solid Waste Management Plan (LSWMP) in accordance with RA 9003. There was, however, low compliance among the MIMAROPA LGUs. Only 43 LGUs out of the 78 or about 55% LGUs in the region has an approved 10-year Solid Waste Management Plan. Moreover, 40 LGUs were assisted by the Environmental Management Bureau (EMB)

in updating their SWMPs, which are expected to be approved by the end of 2022.

In 2021, the total waste collected in the region reached 53,608.20 tons. About 70% of these are residual waste accounting to 37,513.55 tons followed by biodegradable waste recorded at 8,603.80 tons or about 16.05% waste collected in 2021. Out of the five provinces, Palawan recorded the highest waste collected at 47,459.39 tons or about 88.53% of total waste collected in the region. This may be attributed to the greater number of population and commercial establishments operating in Palawan as compared to other provinces in the region.

Though the number of open dumpsites from 2017-2020 decreased, there were recorded reoperation of six dumpsites. There is a 640% increase in the number of open and controlled dumpsites closed and subjected to rehabilitation from 2018-2021.

RA 9003 mandates the closure and rehabilitation of all dumpsites and their replacement with sanitary landfills (SLFs). SLFs are disposal facilities with impermeable liners to prevent liquid discharges from polluting ground and surface waters. As of 2022, there are a total of 13 sanitary landfill facilities in the region including one privately owned SLF by the Coral Bay Nickel Corporation in Sofronio Española. (See Chapter 13)

Unmet housing needs. Housing needs in the region, as of 2021, have been pegged to an estimated 280,094 units. These stem from backlogs, informal settler families (ISFs), displaced households in danger areas, affected by infrastructure projects, with court order for eviction or demolition, and those with landowner of occupied area shalling to sell the property.

It was recorded that around 108,137 comprise the informal settler families (ISFs) in the region. ISFs (according to the National Resettlement Policy Framework 2022) suffer from lack of access to basic services and productive formal jobs; struggle with chronic poverty, difficult living conditions, and high exposure to natural disasters; and are seldom integrated into the broader community, facing higher than average incidence of crime and violence.

On February 5, 2015, the National Housing Authority (NHA) and the Provincial Government of Palawan (PGP) signed a memorandum of agreements (MOA)

for the construction of housing units under the Yolanda Permanent Housing Program (YPHP) in Busuanga, Coron, and Culion in Palawan.

Three years into the implementation of the YPHP in Palawan, a total of 28 housing units were already completed in Barangay Baldat in Culion. Housing projects in barangays Binudac and Galoc are still ongoing, with land development and housing construction of 74 and 319 units underway out of the targeted 274 and 406, respectively. The remaining un-started units are put on hold because the PGP has yet to submit a proposal for new costing of housing units to adjust from price escalation. As of December 31, 2021, the rest of the projects with 4,582 units in the municipalities of Agutaya, Busuanga, Coron, Linapacan, and Barangay Patag in Culion are still subject for processing and compliance with regulatory documents.

Typhoon Odette had badly struck the province of Palawan in December 2021, with houses and settlements areas considered as one of the most affected. A total of 86,996 houses were damaged in the province, 71,361 of which were partially damaged while 15,365 were totally damaged, according to the Regional Disaster Risk Reduction and Management Council Report. Puerto Princesa City was recorded with the highest number of damaged houses, with 29,180 homes for replacement and repair. The majority of damaged houses were classified as old, made of light materials (bamboo, sawali, and galvanized iron), and located along coastal areas and no-build or unsafe zones.

After Typhoon Odette, the affected families had to immediately rebuild their shelters. Those who shall be relocated to the periphery from their barangay or community may also be affected as finding access to basic community services and economic opportunities in the resettlement areas may be difficult.

A total of 257 socialized housing units were already completed and awarded in the province of Palawan. Specifically, 28 housing units were completed and awarded in Coron, 60 in Greenwood, 59 in Divine Mercy, and 92 in Binuatan. Meanwhile, 18 completed housing units were completed in Palm Tree Hauz in Roxas and Culasian but not yet awarded because of the election ban in 2022.

During the COVID-19 pandemic, the Pampamayanang Mangyan Ugnayan, Inc. (PMUI), provided the Alangan tribe in Oriental Mindoro with improved housing to promote social distancing, especially that the tribe is used to living in balay-lakoy where five families live in one shanty.

To help the payees ease their burden on the height of the enhanced community quarantine due to COVID-19, moratorium on the collection of monthly loan amortization from the members of key shelter agencies that include the Home Development Mutual Fund (Pag-IBIG), the National Home Mortgage Finance Corporation, the Social Housing Finance Corporation, and the National Housing Authority was issued.

Based on the updated housing classifications, households are facing constraints in securing decent and affordable housing. Current price ceilings for socialized subdivision and condominium and economic housing projects increased. Socialized housing projects are ranging from PhP480,000.00 to PhP650,000.00 and economic housing projects at PhP2.5 million.

According to the DHSUD, 11 percent of low-income and urban poor has the ability to pay for housing. The 2021 Family Income and Expenditure Survey also recorded the increase in expenditures of families for housing needs.

Generally, the housing characteristics of the region also showed the need to address physical and tenurial aspect for every concerned household. In the region, the proportion of families in 2020 who owned the house and lot they occupied was at 66.9 percent which is higher than the 64.1 percent at the national level. The reported figures indicate an increase in the sense of security of families and the ability to access services.

According to the 2020 Annual Poverty Indicators Survey (APIS), about 85.5 percent of families in MIMAROPA live in houses with strong materials such as galvanized iron/aluminum for the roof material. However, it was recorded that 49.9 percent of families used strong materials such as concrete for the outer walls of their houses. On the other hand, bamboo/sawali/cogon/nipa walls were still common in 31.8 percent of housing units in some areas of the region.

Number of families with limited service level and unimproved facilities reduced. Based on the 2020 APIS, out of the 770,000 families in the region, there is still 11 percent or 84,700 families that are classified under limited service level, 3.1 percent or 23,870 families with unimproved sanitation facilities, and 3.0 percent or 23,100 families are still practicing open defecation.

This is lower compared to the number of families without access to such facilities. Improved sanitation facilities are designed to hygienically separate excreta from human contact. Thus, it is essential that all households put a premium on ensuring that sanitation facilities are included or improved to avoid health and environmental hazards.

Further, only 2.3 percent or 17,710 families in MIMAROPA have handwashing facilities on premises without soap and water, while 5.2 percent or 40,040 families have no handwashing facilities. Only 2.5 percent or 19,250 families in the region have limited services in terms of drinking water wherein drinking water from an improved source is collected for a round trip that exceeds 30 minutes, including queuing. Meanwhile, there is still 2.7 percent or 20,790 families with unimproved service level where drinking water is collected from an unprotected dug well or unprotected spring.

Based on the Provincial Development and Physical Framework Plans (PDPFPs) and Comprehensive Land Use Plans (CLUPs) of the five MIMAROPA provinces and two cities, there are available lands for expansion of built-up areas. Demand for land was determined based on the projected increase in population and economic activities within certain areas in towns and cities which are considered as urban growth centers.

Palawan calculated those settlements with mining operations and activities, major tourism destinations, and diverse economic activities that shall absorb population increase in the province. The same was anticipated for the province of Marinduque as it declared available lands to accommodate increase in population. Oriental Mindoro also predicted additional urban requirement based on

the population growth projections. The provinces of Occidental Mindoro and Romblon also identified future settlements growth but also considered constraints of buildable areas due to physical and natural factors such as hilly terrains, locations of big marble deposits, possible intrusion into marine zones, forests, and agricultural areas.

Puerto Princesa City foresees the continuous growth of its urban center, but primarily through urban infill or appropriate development of its vacant or idle lots. To address the urban sprawl and ribbon-like development from the proliferation of commercial establishments along major roads, a more compact form of urban growth is being considered. The preferred development option of the city consists of developing barangays as satellite service centers, development of a circulation network and multi-modal transport system, expansion of the poblacion, and major investments in rural service centers.

Calapan City also pinpointed its areas for urban expansion based on its land requirements. It aims to achieve medium- to high-intensity development such as putting up commercial centers, multi-modal transportation terminals, and mixed-use developments to attract more investments and induce urban development with minimal environmental constraints.

All municipalities in the provinces of Marinduque, Occidental Mindoro, and Oriental Mindoro have already undergone workshops on the preparation of local shelter plans (LSPs). Fifteen out of 17 municipalities in Romblon and 19 out of 24 municipalities in Palawan have undergone workshops on the preparation of LSPs. Forty of these local government units (LGUs) have also conducted writeshops on the formulation of LSPs. However, none of them has an approved LSP.

Generally, the quality of the environment and natural resources of the region showed mixed performance based from the assessment of the previous regional development plan. Slight improvements in environmental quality have been noted while environmental compliance in terms of air, water, and solid waste management still needs to be improved.

Targets

Table 4.3.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Percentage of highly urbanized and other major urban centers within ambient air quality guidelines increased	2021	100%	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Percentage of capital towns within ambient air quality guidelines		0%	0%	0%	33%	33%	67%	100%	EMB admin data	EMB
Monitoring of Water Bodies maintained:										
Priority Rivers	2021	10	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Public Water Supply	2021	0	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Recreational	2021	44%	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Water Quality Management Areas	2021	50%	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Percentage of water bodies meeting respective guidelines values:										
Water Quality Management Areas	2021	25%	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Number of barangays served by MRFs maintained	2022	1,460	1,460	1,460	1,460	1,460	1,460	1,460	EMB admin data	EMB
Percentage of LGUs implementing their approved 10-year Solid Waste Management Plan	2021	51%	100%	100%	100%	100%	100%	100%	EMB admin data	EMB
Percentage of LGUs with climate and disaster-risk informed plans										
PDPFP	2022	80%	100%	100%	100%	100%	100%	100%	DHSUD report	DHSUD
CLUP	2022	59%	80%	100%	100%	100%	100%	100%	DHSUD report	DHSUD
CDP	2022	82%	91%	100%	100%	100%	100%	100%	DILG monitoring report	DILG
Number of housing backlogs decreased*	2021	280,094	50,000	50,000	50,000	50,000	50,000	30,094	DHSUD admin data	DHSUD

*Note: *NEDA estimates based on the previous RDP targets*

Strategies

Figure 4.3.1 Strategy Framework to Establish Livable Communities



Environmental quality improved

Expand monitoring and enforcement of air and water quality standards. Ambient air quality monitoring and enforcement of standards shall be expanded. This shall require upgrading/modernizing the existing equipment for assessing ambient air quality as well as establishing additional air quality monitoring stations particularly in the provinces of Marinduque, Occidental Mindoro, and Romblon for a well-represented air quality data in the region. Protection and rehabilitation of forestlands through reforestation programs such as the Enhanced National Greening Program (ENGP) and Forest Protection Program shall continue to be implemented.

Environmentally sustainable transport including clean fuels and mass transport system to reduce air pollutants must be promoted. It shall also include setting of mobile emission testing stations and motor vehicle inspection stations where there is no designated Land Transportation Office Field Unit.

Increasing green spaces at the city and barangay levels is seen to improve environmental quality, reduce urban heat, and promote biodiversity. It is also considered to be beneficial for improving health and overall wellbeing. Increased awareness, understanding, and appreciation of local communities and other stakeholders on the importance of green

spaces shall be pursued and individual actions on urban greening shall be encouraged.

Technical and financial assistance/incentives shall be provided to LGUs to enable them to establish green spaces (e.g., Urban Biodiversity Program, National Greening Program, and Green, Green, Green Program) and enact and implement environment code standards. Moreover, urban farming and community-based gardening shall be intensified to expand green urban spaces that contribute to ensuring food security. Programs and interventions of LGUs on developing green spaces may be considered as part of the performance criteria in the DILG's Seal of Good Local Governance (SGLG).

In terms of improving water quality, the establishment of wastewater treatment facilities by water districts or LGUs for sewage and septage management of waste from domestic and commercial resources shall be pursued. Strengthening capacity of the water quality management area governing board through provision of sufficient knowledge and information to its members on water quality management, best practices, and updated technology shall be undertaken.

For proper septage management, septic tanks shall be designed consistent with approved engineering and environmental standards. Construction of three chambered septic tanks shall also be promoted. Improved regulation of wastewater discharge through issuance of discharge permit for commercial

activities must be enforced. Upgrading the capacity of laboratory stations for wastewater analysis shall also be pursued.

Strengthened Clean Water Management Programs shall be institutionalized down to the barangay level. (e.g. Adopt-an-Estero/ Sagip Ilog Program). In support of the National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML), EMB MIMAROPA in partnership with the LGUs shall install Trash Traps in most polluted rivers to prevent wastes from flowing into waterbodies. This activity may help reduce flooding during the rainy season.

Strengthen waste management strategies and establish proper waste disposal facilities. Waste management methods and practices shall be strengthened to ensure protection of public health and the environment. Improper solid waste disposal may lead to environmental problems such as air and water pollution, soil contamination, and climate change. Information, education, and communication campaign on waste management program at the household level through the barangay officials based on the waste management program of the local government units shall be instituted.

Waste minimization shall involve ensuring compliance and steering behavioral change at the individual, household, and societal levels towards sustainable production and consumption practices. Household level waste source reduction and public participation shall play a key role.

Waste recycling and other recovery programs such as community-based waste management programs through composting and recovery of rare metals from waste electrical and electronic equipment (urban mining) programs shall be intensified to improve resource efficiency and promote a circular economy. This shall enable public and private investments (e.g., development of green technologies and establishment of facilities) in waste recovery, reuse, and recycling as well as manufacturing and production using secondary raw materials.

Strict implementation of RA 9003 shall be observed to increase LGU compliance and investment to waste management system and facilities. It shall be complemented by provision of technical assistance and capacity building to LGUs on the preparation, implementation, and monitoring of SWMP.

The high cost of establishing sanitary landfills hinders the LGUs in complying with RA 9003. The design and planning phase alone could cost around Php 2.00 million to Php 4.00 million which should cover compliance with government rules and regulations and other professional fees and would take at least two months to complete. It is recommended for adjacent LGUs in the MIMAROPA provinces to pursue the establishment of shared or clustered SWM facilities/sanitary landfill projects to take advantage of economies of scale. This shall enable them to pool resources for the construction, operation, and maintenance of SLFs.

Per record, LGU Puerto Galera has an existing Memorandum of Agreement (MOA) with Calapan City which allows them to dispose of their residual wastes into the Calapan City sanitary landfill. Similar agreement also exists for the municipalities of Kalayaan and Puerto Princesa City SLF.

A Feasibility Study was conducted by a private consultant through EMB MIMAROPA to establish a common sanitary landfill for LGU clustering in the region. Based on the study, the most suitable area is located in the Province of Marinduque. The proposed location is located at Brgy. Tungib-Lipata, Buenavista Marinduque with a total area of 5 hectares. It shall cover the collection of all the municipalities in the province namely: Buenavista, Boac, Gasan, Mogpog, Sta. Cruz and Torrijos. There are currently seven issued ECC for the establishment of SLF in the following LGUs: 1) Sablayan, Occidental Mindoro; 2) Victoria, Oriental Mindoro; 3) Alcantara, Romblon; 4) Sta. Fe, Romblon; 5) Odiongan, Romblon; 6) Romblon, Romblon; and 7) Narra, Palawan.

LGUs in the region shall be encouraged and provided support to use alternative waste disposal, innovative recycling technology, and waste to energy facilities that can be operated through partnership with the private sector.

Living conditions improved

Improve quality and affordability. Improving the living conditions shall require increasing access to quality and affordable housing. Hence, expanding housing finance systems and financing programs is necessary to low-income and within middle-income groups. As mentioned in the National Resettlement

Policy Framework (NRPF), certain components of housing production (i.e., land acquisition, land development, housing loan interests) shall be subsidized to reduce the final costs to the intended beneficiaries.

Improving access to housing services also includes information through stakeholder consultations, and social preparation shall be a required component of the resettlement process.

Ensure connectivity of settlements to economic activities and urban services. The following shall be the key considerations in site selection: existing physical and social infrastructure and development direction of receiving/host locality, proximity to urban areas and sources of livelihood, convenient access to modes of transportation, and exposure to natural hazards.

The intermodal transportation network in the region needs to be improved for communities in the region to be connected with one another and to key urban areas. The Pan Philippine Highway, also known as the Strong Republic Nautical Highway (SRNH), is already in place along the East Philippine Seaboard. Through a sophisticated intermodal infrastructure, this enables simple transportation of goods and services from the northern half of Luzon to Mindanao, with MIMAROPA communities serving as bridgeways to the south. Further, the West Philippines Seaboard Section must be set up. San Jose Occidental Mindoro needs to be connected to Palawan for this to happen. The construction of the Coron-Culion bridge shall link the Culion Islands to Palawan's mainland, enabling an uninterrupted movement of products and services throughout the area. See Chapter 13 for full discussion on infrastructure needs and strategies of the region.

Mobility and transport planning shall be integrated in the development planning of provinces and cities. Following the NUDHF, the RDP also recognizes and adopts efficient transport to improve the quality of life of MIMAROPAns. This means reduced vehicular dependence, promoting walkability, and prioritizing mass transportation. For the intra-island mobility, there is a need to build integrated transport terminals in all major island in the region. On the other hand, stakeholders should be encouraged to construct support facilities and economic enterprises within the transport terminals for potential in-transit passengers (Chapter 13). Improving affordability needs to be partnered with interventions to increase families' purchasing

capacity. Thus, implementation of housing strategies requires an integrated approach on providing services on ensuring economic and social welfare.

In 2021, a total of 320.30 km was constructed in the region, resulting to a 0.2865 sq. km FMR density ratio. Compared to the optimal FMR density ratio of at least 2 sq. km, this number is substantially below average. In accordance with the implementation of the Comprehensive FMR National Master Plan 2020 to 2030 and the Farm-to-Market Road Network Plan (FMRNP), the FMR program's implementation shall be sped up. Investments in strategic Farm-to-Market Roads (FMR) must have a focus on remote and geographically isolated and disadvantaged areas (GIDAs).

From 2017 to 2021, a total of 169 tourism road infrastructure projects under the DOT-DPWH convergence were implemented in which 131 were already completed.

The envisioned settlements development in the formulated PDPFPs and CLUPs, consistent with the RSDP, shall contribute to the growth of sub-regional and provincial centers, along with their immediate areas of influence. Following the proposed five-tiered Hierarchy of Settlements (Chapter 2), the following are envisioned to be the subregional centers in the succeeding years: Bansud, Pinamalayan, Puerto Galera, and Roxas in Oriental Mindoro; Bataraza, Coron, Culion, and El Nido in Palawan; Cadjocan, Looc, and Odiongan in Romblon; Gasan and Santa Cruz in Marinduque; and Sablayan in Occidental Mindoro.

Improve resiliency of settlements. Resilience takes part in protecting investments in housing and ensuring sustainability in communities.

LGUs shall closely examine and assess the level of resiliency at the household level by ensuring consistency of its LSP to its LCCAP and DRR plans.

To reduce vulnerability of households to climate change and natural hazards, housing finance, tenure, infrastructure and basic services and structural upgrading, and appropriate site selection for resettlement shall be pursued.

Resettlement site selection shall be rationally identified and planned according to land use

and development plans. An urban database or information management system shall also be established to quickly identify and assess needs for resettlement and housing.

Strengthen social cohesion. In order to strengthen social cohesion in the region, interventions that promote community involvement, participation, and inclusion shall be in place. These shall include community empowerment through collaboration of LGUs, businesses, civil society organizations, and other sectors to encourage participation in planning, implementation, and monitoring of development activities within and among communities – underscoring the importance of their role in shaping the development priorities and directions.

The creation of local culture and arts councils (LCACs), whose mission is to safeguard and advance local cultural assets and the arts, is one of the PDPs' historical achievements. As a result, the DILG issued Memorandum Circular No. 2017-133 ordering all government agencies to pass laws strengthening project implementation culture and creating LCACs. As of September 2019, there are 48 LCACs validated.

To establish a livable community, the LGUs and its citizens should also promote and protect the Philippine identity starting from their communities. They should push for the heritage development, tourism, and culture and arts in order to preserve the cultural, historical, and indigenous significance of their community.

One program of the NCCA is cultural mapping, which enables LGUs to identify and record existing local cultural properties, which then can be used for references. It can also gain interest among stakeholders on the preservation of the resources through the

formation of preservation councils and legislations.

A total of 78 LGUs in MIMAROPA (71 municipalities, 5 provinces, and 2 cities) were recorded to have established local culture and arts councils (LCACs) in 2020. This was based on the inventory of the National Commission for Culture and the Arts (NCCA). Of the established LCACs, 55 were validated by the NCCA. Two of these were created by legislation. However, there were 53 that were created by an executive issuance, while 46 LCACs were validated as exclusive, which means that they are strictly for culture and arts purposes only. Finally, there were nine LCACs that were validated as hybrid.

Cultural mapping facilitation should be improved to advance the cultural history and customs of the communities. This entails identification and documenting of both tangible and intangible resources in a place, must be undertaken. As of 2020, 15 LGUs have cultural mapping projects with NCCA. These are the province of Oriental Mindoro; city of Calapan; municipalities of Bulalacao, Mansalay, and Naujan in Oriental Mindoro; municipalities of Buenavista, Gasan, Mogpog, Torrijos, and Santa Cruz in Marinduque; municipalities of Corcuera and San Fernando in Romblon; and municipalities of Aborlan, Kalayaan, and Brooke's Point in Palawan. To support the promotion of culture and the arts in their communities as well as the safeguarding, conservation, and preservation of local cultural and historical assets, local culture and arts councils (LCACs) must be enhanced. Further, prioritization must also be given to integrating culture into development plans. The ability to design, create, and carry out culturally relevant plans and programs rests with local planners.

Table 4.3.2 List of Major Programs and Projects

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (P '000)						TOTAL 2023-2028 INVESTMENT TARGET (P '000)
		2023	2024	2025	2026	2027	2028	
Human Settlements and Urban Development Coordination / Public Housing and Settlements Program	Regionwide	2,251	2,476	2,723	2,996	3,295	3,625	17,368
Homeowners Association and Community Development Program	Regionwide	1,942	2,136	2,350	2,585	2,843	3,128	14,984
Environmental Land Use and Urban Planning and Development Program	Regionwide	266	293	322	354	389	428	2,052

Sources: *Regional Development Investment Program 2023-2028 of DENR-EMB MIMAROPA and DHSUD MIMAROPA*

Legislative Agenda

Table 4.3.3 Legislative Agenda to Establish Livable Communities

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Local policy on banning single-use plastic products	Banning single-use plastic products such as plastic straws, stirrers, utensils, food wrappers, instant food packaging, lids, drinking bottles and caps, among others. This is to encourage MIMAROPA LGUs, Agency Regional Offices, Business Organizations, and Other Stakeholders to support the MIMAROPA RDC resolution No. 2018-065-730 on prohibiting the use of single-use plastics.	LGUs, AROs, Business Organizations, and Other Stakeholders
Maritime Safety, Security, and Prevention of Ship Sourced Pollution Bill	The island provinces of MIMAROPA rely on the services of water transportation. The bill shall strengthen prevention and control of marine pollution from any vessel.	Philippine Coast Guard, DENR, DOST, MARINA, PPA
Strengthening of KSAs and creation of Local Housing Boards in LGUs	Renew the NHA Charter and strengthen its organizational structure and functions Broaden mandate to allow securitization not only of mortgages but also of other housing-related receivables or loans resulting in increased funds available for housing development	DHSUD
Further amendments to the Urban Development and Housing Act of 1992	The Urban Development and Housing Act, which was passed in 1992, is ripe for further amendments and/r revision to keep up with current and emerging housing concerns and challenges posed by climate change and to institutionalize the provision of other basic services and livelihood components.	DHSUD

05

**Reduce Vulnerabilities and
Protect Purchasing Power**

CHAPTER 05

Reduce Vulnerabilities and Protect Purchasing Power

In 2015, about 30 percent of the total households in the region was considered food secure. This chapter discusses the strategies that will reduce vulnerabilities and protect purchasing power by ensuring food security and proper nutrition. In the next year, the region is expected to: a) ensure food availability and affordability; and b) improve nutrition, food utilization, nutrition, and stability. It was observed that food security contributes to the attainment of nutrition security. When there is an adequate and stable supply of affordable, nutritious that can be easily accessed by people, their nutritional status will also improve.

Likewise, a revolutionary social safety system is required in the region, one that gives every MIMAROPAn the knowledge and abilities to anticipate future shocks, respond to them, and recover from them. Such a radical strategy would go beyond risk management interventions and include fixes for institutional flaws and social injustices that would help people get access to programs that cover all types of risks throughout their lifetimes.

Sub-chapter 5.1 Ensure Food Security and Proper Nutrition

In particular, MIMAROPA aims to contribute to the achievement of SDG No. 2 or Zero Hunger. This calls for: a) ensuring food security and proper nutrition in the region by focusing on supply side of food security; b) providing wider access to adequate resources for acquiring appropriate foods for a nutritious diet; and c) ability of human body to ingest and metabolize food through proper diet, clean water, good sanitation and health care to achieve a state of nutritional well-being.

Assessment and Challenges

Food Availability. From 2017 to 2021, the region was considered self-sufficient in three key commodities such as rice, corn, and pork. However, other food commodities such as eggplant, tomato, squash, chicken, chicken egg, milkfish, roundscad, tilapia, and tuna were reported to be insufficient. In general, MIMAROPA cannot rely on its own production resources to cater the domestic demand for food.

MIMAROPA's low food sufficiency level can be attributed to the low-coverage of irrigation system, limited agri-fishery farm machineries, and agricultural losses such as post-harvest losses incurred from grading, packaging, transportation, and distribution of produce to consumers.

Agricultural products were generally wasted during post-harvest phase. Moreover, the local production of agriculture and fisheries – the main source of food supply – remained vulnerable to disasters, which affected the availability of food supply in the region.

Food Accessibility and Affordability. Among 17 regions, MIMAROPA ranked 9th in terms with highest ratio of food expenditure to total family expenditure. From 2003 to 2018, about 45.4 percent of the household expenditure of the families in MIMAROPA were allocated for food. The total annual family income in the tenth decile was about seven times higher than those in the first decile.

For the past three years, food inflation in the region accelerated from 1.0 percent in 2019 to 4.2 percent in 2021. Among the top contributors to the surge in the overall inflation were corn, meat, and fish.

These commodities suffered from weather disturbances, high cost of inputs, and/or pests and diseases, that affected domestic production. Generally, these commodities have low farmgate price. However, the adverse effects of weather disturbances, high cost of inputs (e.g., fertilizers, fuel), high logistics cost, and pests and diseases that affected the domestic production tend to make the market/retail price higher.

In terms of physical accessibility, limited infrastructure facilities and weak logistics system hindered the delivery and distribution of food products within the region. For instance, from 2014-2021, the region's FMR density was estimated at 0.2865 sq km only. A total of 320.30 km FMRs were constructed in the region during the period. The recorded FMR density ratio was far behind the ideal FMR density ratio of at least 2 sq km.

The COVID-19 pandemic in 2020 exposed the vulnerability of food supply chain in the region, which suffered disruptions during the implementation of community lockdowns. Efforts and initiatives to provide wider access to market and funding for small businesses increased particularly during the pandemic, but still inadequate. From 2020 to 2021, only seven AFF-based associations in MIMAROPA served as operators/suppliers under Kadiwa ni Ani at Kita program, which generated about Php48.49 million in total sales. A total of 123 Diskwento Caravans were also conducted in the region. As of 2021, a total of 47 bagsakan centers/trading posts were established in the region. More than half of these facilities, however, were non-operational.

The region's growing population may result to land use conflict and require conversion of existing agricultural land areas to settlement areas. It is also expected that premature or illegal conversion of prime agricultural lands and irrigable lands into commercial and residential areas will continue.

Food Utilization, Nutrition, and Stability. MIMAROPA ranked 3rd and 1st in terms of highest prevalence of stunting and of wasting among children

less than 5 years old, respectively. Prevalence of malnutrition in children less than 5 years (stunting) significantly increased from 35.8 percent in 2013 to 40.9 percent in 2015, while wasting remained at 9.7 percent in 2015.

On the other hand, based on the Operation Timbang (OPT) results, the prevalence rate of stunting among children less than 5 years old decreased from 15.4 percent in 2021 to 13.78 percent in 2022, while the prevalence of wasting among children less than 5 years old decreased from 4.5 percent in 2021 to 4.1 percent in 2022. Most of the malnourished children were found in the IP communities, which contributed to high MPRs for the past years. Rural health workers reported difficulties in educating IP mothers due to food preferences and cultural beliefs and practices. The prevalence rate of overweight and obesity among children less than 5 years old decreased from 3.4 percent in 2021 to 3.1 percent in 2022.

In terms of food safety, the region needs to increase its efforts in establishing food testing laboratories in every province. Currently, the region has only one FDA-accredited food testing laboratory located in Palawan. Thus, other provinces opted to avail of food testing laboratory services in Manila since it is more convenient than travelling to Palawan, which also incurred additional cost to business establishments.

Among the major challenges in the food availability, accessibility, and affordability of nutritious and safe food were: (i) vulnerability of agriculture and fisheries sector to climate and natural hazards that disrupted supply chain; (ii) food sufficiency level of most of key food commodities were below 100 percent; (iii) high post-harvest losses; (iv) unstable food inflation; (v) inadequate support infrastructures and market platforms, (vi) premature/illegal conversion of prime agricultural lands and irrigable lands; (vii) healthier food alternatives were less accessible and more expensive; (viii) weak facilitation and traceability of food safety standards certification and good agricultural practices; and (ix) limited support to R&D relative to food nutrition-related science to improve quality/dietary requirements.

Targets

Table 5.1.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Sub-chapter Outcome 1: Sufficient and stable supply of food commodities attained										
100 percent Food Sufficiency Level in Key Food in Commodities achieved and surpassed									PSA, Provincial, Municipal, and Regional Program Coordinator's reports	DA, LGUs
Rice	2021	180.27%	184.78%	189.40%	194.13%	198.99%	204.00%	209.05%		
White Corn	2021	619.96%	635.46%	651.34%	667.63%	684.32%	701.43%	718.96%		
Eggplant	2021	33.23%	34.07%	34.91%	35.78%	36.68%	37.60%	38.54%		
Pork	2021	342.24%	350.80%	359.57%	368.55%	377.77%	387.21%	396.89%		
Chicken Egg	2021	4.18%	5.00%	7.00%	9.00%	11.00%	13.00%	15.00%		
Tilapia	2021	19.44%	19.93%	20.42%	20.94%	21.46%	23.00%	25.00%		
Low and Stable Food Inflation achieved	2022	6.10%	2%-4%	2%-4%	2%-4%	2%-4%	2%-4%	2%-4%	PSA, Inflation Report	NEDA
Sub-chapter Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded										
Subsistence incidence among population (%) reduced	2021	7.50%	5.2 (High)		3.9 (High)		2.6 (High)		PSA, FIES	NEDA
			3.9 (Low)		2.6 (Low)		1.3 (Low)			
Prevalence of food insecurity in the population decreased (%)										NNC
Severe food insecurity	2015	26.00%	23.83%	21.67%	19.50%	17.30%	15.17%	13%	DOST-FNRI, NNS	
Moderate food insecurity	2015	32.20%	29.52%	26.83%	24.15%	21.47%	18.78%	16.1%		
Sub-chapter Outcome 3: Nutrition across all ages improved										
Prevalence of malnutrition among children 0-5 years old decreased									Annual OPT Results	NNC
Stunting	2022	13.60%	12.80%	12%	11.10%	10.30%	9.40%	8.60%		
Wasting	2022	4.10%	3.80%	3.60%	3.30%	3.10%	2.80%	2.50%		
Proportion of households meeting 100% recommended energy intake	2018-2019 (National Level)	21.80%	25.70%	28.00%	30.30%	32.70%	35.00%	42.00%	DOST-FNRI, NNS	

Sources: DA MIMAROPA, PSA, NIA MIMAROPA, DOST-FNRI, and NNC

Strategies

In the medium term, strategies to protect the purchasing power of MIMAROPAns will strive to reduce food insecurity, end hunger, and improve nutrition. This outcome will aim to: a) ensure food availability and affordability; and b) improve nutrition, food utilization, nutrition, and stability (refer to Figure 5.1.1), which outcomes are beneficial to existing producers and marginalized farmers and fisherfolk, including women, elderly and indigenous peoples, who are typically subsistence producers/ consumers and have limited market participation.

Figure 5.1.1 Strategy Framework to Ensure Food Security and Proper Nutrition



To achieve the subsector outcomes and targets, the following strategies will be implemented:

Sufficient and stable supply of food commodities attained

Enhance productivity and resilience of agri-fisheries sector. This strategy involves: a) provision of agri-fishery machineries and facilities; b) acceleration of irrigation development; c) expansion of credit and insurance coverage; d) intensification of capacity building and extension; e) adoption of innovative technology; and f) adoption of sustainable ecosystem (refer to Chapter 7).

A bottom-up approach in planning will be encouraged among adjacent municipalities to identify/update commodity programs, machineries and facilities,

technologies, and physical infrastructure needed by the communities. Investments in irrigation will be focused on construction of disaster-resilient small scale irrigation facilities. Potential irrigable areas shall be identified for the application of new irrigation projects or systems (e.g., drip irrigation, solar-powered irrigation, and sprinkler irrigation). Non-functional irrigation facilities, which were damaged by typhoons, shall be rehabilitated and retrofitted. Investments in construction, rehabilitation, and retrofitting of irrigation facilities will be focused in the provinces of Occidental Mindoro, Oriental Mindoro, and Palawan, which were included in the list of priority sites identified in NIMP 2020-2030.

Clustering of small farmers and fisherfolk (SFF) will be pursued to achieve economies of scale in terms of: a) providing wider access to market

platforms, financing and insurance coverage, and extension services; and b) improving production process, packaging, and distribution of agricultural and fishery products. Additional funds shall be provided for the capitalization of PCIC to increase the insurance coverage in the region. As of 2021, only 24.26 percent or 73,083 of the total number of farmers and fisherfolks in the region were covered by insurance. CDA, DA, and DAR will provide capacity building on strengthening farmers' cooperative and associations (FCAs) and institutional development in the region, particularly in the provinces with least number of such as accredited civil society organization including Marinduque, Oriental Mindoro, and Romblon.

Higher funding for R&D will be supported to conduct: a) market-matching study and identification of technologies appropriate to farm needs and conditions; and b) study to improve productivity, reduce post-harvest losses, and enhance risk resilience.

Expand and protect production areas. In collaboration with LGUs, DA, and other concerned agencies, efforts to encourage the practice of urban and vertical agriculture at the household level will be intensified through the implementation of national agricultural programs such as but not limited to High Value Crops Development (HVCD) Program, National Livestock Program, National Organic Agriculture Program, Kabuhayan at Kaunlaran ng Kababayang Katutubo (4K's), Program, and Special Area for Agricultural Development Program (SAAD). These programs will be provided primarily to 4th – 6th income class municipalities in the region: a) Buenvista in Marinduque; b) Looc and Lubang in Occidental Mindoro; c) San Teodoro in Oriental Mindoro; d) Agutaya, Araceli, Cagayancillo, Cuyo, Linapacan, Magsaysay, and Kalayaan in Palawan; and e) Alcantara, Banton, Cajidiocan, Calatrava, Concepcion, Corcuera, Looc, Magdiwang, San Agustin, San Andres, San Fernando, San Jose, Santa Fe, Ferrol, and Santa Maria in Romblon.

Starter kits such as seedlings, compost, stocks, and fingerlings will be provided as well as capacity building for proper crop/fishery/livestock management, pest and disease control, and organic farming. This will promote production in non-agriculture areas and augment local production to provide nutritious food among households and communities.

To ensure stable food supply, it is vital to preserve the region's agricultural land by rationalizing land use allocation and protecting and promoting sustainable development of prime agricultural lands and irrigable areas identified in SAFDZ areas in the region. Additional estimated area of 324,606.79 ha or half of the total existing SAFDZ (659,215.04 ha) in the region can be used as expansion areas for prime agricultural lands. These areas were identified under agro-forestry area having 18 percent – 30 percent slope. Application of appropriate technology [(e.g., implementation of sloping agricultural land technology (SALT)] and identification of suitable crops (e.g., coconut, pineapple) are vital to maximize said areas.

Implementation of existing laws and regulations on land reclassification and conversion [(e.g., Agriculture and Fisheries Modernization Act of 1997, CARP, Local Government Code (LGC)] should be strictly enforced and monitored. Updating of comprehensive land use plans (CLUP) and zoning ordinances of cities and municipalities will be based on the guidelines on land use planning processes and requirements provided by Department of Human Settlements and Urban Development (DHSUD) and consistent with AFMA of 1997, Fisheries Code of the Philippines, Clean Air Act, and Climate Change Act. DHSUD, DILG, and other concerned agencies will continue to provide capacity building on the formulation/updating of CLUPs to LGUs, particularly to municipalities with no CLUPs (Taytay in Palawan and Cajidiocan, Corcuera, and Santa Maria in Romblon).

In addition, seamless coordination and collaboration among Department of Agrarian Reform (DAR), Department of Environment and Natural Resources (DENR), DILG, National Commission on Indigenous Peoples (NCIP), and Land Registration Authority (LRA) should be intensified to address the jurisdictional and operational issues on delineation and titling through the implementation of the DAR-DENR-NCIP-LRA Joint Administrative Order No. 01, s. 2012. Activities of MIMAROPA regional technical working group (RTWG) on the JAO No. 01 such as regional mapshop and consultation will be continued to facilitate the exclusion/segregation of all land covered by titles for the issuance of certificate of non-overlap in selected priority ancestral domain/ancestral land survey plans in Occidental Mindoro, Oriental Mindoro, Palawan, and Romblon.

LGUs and other concerned agencies should also be encouraged to adopt and operationalize ecosystem approaches to fisheries management such as but not limited to fisheries management areas, coastal resources management, aquaculture/ mariculture management, BFAR's Malinis at Masaganang Karagatan (MMK) Program, and Balik Sigla sa Ilog and Lawa (BASIL).

In particular, the BASIL program will focus on the following BASIL management areas: a) Oriental Mindoro (Tongloy Lake in Victoria and Naujan Lake National Park in Naujan); b) Occidental Mindoro (Marabong Lake and Tabtaban in Sablayan); and c) Marinduque (Makulapnit Dam in Sta. Cruz).

Strengthen the buffer stocking of basic food items for emergencies and disasters. The Municipal Social Development and Welfare and Disaster Risk Reduction Offices (DRRMO) shall spearhead the conduct of IEC activities that encourage households to practice stocking of other food items at their level. Buffer stocking of rice and other basic food commodities should be improved and monitored to ensure enough supply of food packs, particularly in disaster prone areas and conflict areas in MIMAROPA, including: a) Boac, Gasan, and Mogpog in Marinduque; b) San Jose, Sablayan, and Santa Cruz in Occidental Mindoro; c) Calapan City, Naujan, and Pinamalayan in Oriental Mindoro; d) Narra, Puerto Princesa City, and Taytay in Palawan; and e) Odiongan, Romblon, and Cajidiocan in Romblon. Said municipalities were the top three municipalities per province reported that have the largest built-up area affected by different hazards such as steep slope, liquefaction, rain-induced landslide, storm surge, and flooding.

In addition, dashboard and early warning systems/ anticipatory mechanisms relative to hazard estimation and weather forecasting should be established and maintained (e.g., adoption of the CVRIS in Oriental Mindoro, an online system that will collect, digitize, analyze, and disseminate). This will be facilitated through mainstreaming the use of remote sensing technologies and adoption of site-specific, timely, and simplified climate outlook and weather forecast.

Reduce or prevent food losses/waste. SUCs, DTI, DOST, and other concerned agencies will be tapped to conduct technology/knowledge transfer activities to households and MSMEs regarding natural food preservation and storage, particularly

to communities identified as geographically isolated and disadvantaged areas (GIDAs). DENR will strengthen its campaign on segregation of waste disposal and designing of community-garbage collection system, while it continues to provide facilities, equipment, and capacity building for the management of biodegradable wastes. The compost materials from the collected biodegradable waste will be used as fertilizers for urban farming and community gardening in the localities.

LGUs located in large settlement areas such as regional centers, sub-regional centers, and provincial centers in MIMAROPA should establish policies regarding Food Waste Management that will promote, facilitate, and ensure food waste reduction. Unlike lower settlement areas, the areas with large number of population provide more advanced urban services (finance, medical centers, education institutions, gateway ports, among others), which tend to have larger quantity of food waste. The following are included in the higher part of hierarchy of settlements: a) regional centers (Boac in Marinduque, Calapan City in Oriental Mindoro, Mamburao and San Jose in Occidental Mindoro, Puerto Princesa City in Palawan, and Romblon in Romblon); and b) sub-regional centers (Gasan and Sta. Cruz in Marinduque, Sablayan in Occidental Mindoro, Bansud, Pinamalayan, Roxas, and Puerto Galera in Oriental Mindoro, Bataraza, Coron, Culion, and El Nido in Palawan, and Cajidiocan, Looc, and Odiongan in Romblon).

Access of consumers to affordable, safe, and nutritious food expanded

Improve marketing, transport, distribution, and logistics system. To complement efforts on increasing growth and productivity in AFF and avoid disruption in the supply chains especially during calamities and disasters, the region needs to: a) ramp up promotion and use of online or digital platforms/channels for marketing, transactions, payments, and deliveries; b) accelerate construction of farm-to-market roads; and c) construct strategically-located processing and post-harvest facilities (cross-refer to Chapter 7).

RDC MIMAROPA adopted the concept of the proposed Integrated Intermodal Transport Terminal with Point-to-Point (P2P) Transport Services and Trading Center Components. To improve accessibility, mobility, convenience, and safety of the commuting public as well as agricultural products and commodities, Bagsakan Centers or Trading Centers

are devised to address the five major concerns of food security, poverty alleviation and social equity, income enhancement and profitability of farmers, global competitiveness, and sustainability, by providing sufficient, quality, and low-priced goods.

Funds shall be provided for maintenance and operations and repair of non-operational facilities such as bagsakan centers and trading post located in: a) Marinduque (Sta. Cruz, Mogpog, and Buenavista); b) Occidental Mindoro (Abra De Ilog, Lubang, Magsaysay, and Sablayan); c) Oriental Mindoro (Gloria, Naujan, Calapan City, Victoria, Pola, and Mansalay); d) Palawan (Roxas, Puerto Princesa City, Brooke's Point, Aborlan, Coron, and Quezon); and e) Romblon (Looc, San Jose, Calatrava, and San Agustin). Investment for the construction of agroprocessing center in Calapan City (one of the priority projects specified in Master Plan for Sustainable Urban Infrastructure Development of Calapan City), Provincial Agriculture Center in Victoria, Oriental Mindoro, and other similar projects. These will improve processing and value-adding of commodities in the region. DTI and DA, in collaboration with LGUs, will continue the conduct of Agri-Trade and Tourism Fairs, Diskwento Caravans, and Kadiwa to promote, sell, and deliver MIMAROPA's popular local products such as delicacies, processed foods, fashion and accessories, agricultural products, health and wellness products, home decor and other novelty items to different consumers (e.g., Banana Chips of Oriental Mindoro; Butterfly home décor of Marinduque, natural body oil of Romblon, novelty craft/pearl jewelry in Palawan, and dried fish in Occidental Mindoro).

Physical and digital infrastructure (ICT/internet connection) in the region shall be improved. Through the FMR Network Plan, the construction of FMRs particularly in geographically isolated and disadvantaged areas (GIDAs) will be accelerated (refer to Chapter 7). The region shall capitalize on various tools and information systems such as Agricultural and Biosystems Engineering Management Information System (ABEMIS) and Geographic Information System for Agricultural and Fisheries Machinery (GEOAGRI and Infrastructure)/Integrated Road for Agriculture and Development (IROAD) in rationalizing and prioritizing infrastructure investments such as FMRs. Further, transport options shall be expanded to ensure that GIDAs will be linked to markets (cross refer to Chapter 13: Expand and Upgrade Infrastructure).

In terms of marketing, distribution, and transporting fishery/marine resources, fish port complex including cold storage shall be established in the region, particularly in the top fishery producing provinces (e.g., Palawan and Occidental Mindoro) to provide a systematized fish marketing and distribution. The establishment of fish port complex near MIMAROPA fishing grounds will be explored through the conduct of feasibility studies. Public-private partnerships can be tapped in the said establishment and reviving critical community fish landing centers in the region. The facility will provide different services including: a) unloading and marketing of fish; b) provision of fish production and post-harvest facilities (facilities for harbor operations, refrigeration, packaging, and labelling); c) provision of marketing information; and d) knowledge management and information system.

Likewise, to complement the construction of agricultural infrastructure supporting the efficient distribution/transportation of safe and quality food, the following policies and regulations shall be implemented in coordination with national government agencies and LGUs: a) harmonization of transportation guidelines at the national (DOTr, PPAs, PCG) and local levels; b) streamlining of registration processes for the facilities and logistics, and food safety and quality requirements; c) reduction of excessive checkpoints to administrative boundaries of LGUs; d) intensification of border protection by strengthening inter-agency cooperation and biosecurity measures; e) continuation of suspension of pass-thru fees for the transport of goods and products; f) establishment and maintenance hotline numbers for complaints.

Intensify the promotion and utilization of digital platforms of marketing, delivery, and payment transactions. Local delivery and payment services, agri-tourism trade fairs, market-on-Wheels, eKadiwa, and other online marketing platforms such as GCash and official Facebook page shall be maximized to serve more clients. These marketing platforms will be led by conduct of market research and integration of agricultural products to achieve high value-adding and market-oriented development. Moreover, capacity building and technical training on e-commerce in agribusiness, digital payments, and organizational, financial business management, and enterprise development will be provided to AFF-based MSMEs and farmers' cooperative and associations (FCAs).

Strengthen price and supply monitoring of food commodities. The promotion and use of online price monitoring system of DTI and DA for basic necessities and prime commodities such as Bantay Presyo Ni Ani at Kita and e-Presyo, respectively, shall be intensified to provide: a) guidance for consumers in their grocery shopping; and b) basis for the LGUs to provide interventions in stabilizing prices of commodities.

Strengthen price and supply monitoring of food commodities. The promotion and use of online price monitoring system of DTI and DA for basic necessities and prime commodities such as Bantay Presyo Ni Ani at Kita and e-Presyo, respectively, shall be intensified to provide: a) guidance for consumers in their grocery shopping; and b) basis for the LGUs to provide interventions in stabilizing prices of commodities. Likewise, DA in collaboration with the reactivated Local Price Coordinating Councils (LPCC) shall monitor farmgate price of agricultural commodities and timely disseminate the same in the online platform. Other social media platforms such as official Facebook page of DA and LGUs will be utilized to provide easier access of the public in the said information.

Likewise, identification of regions with production surplus that can supply MIMAROPA with production deficit (e.g., “Baguio vegetables” from the province of Benguet in Cordillera Administrative Region) is vital to ensure sufficient supply of food commodities in the region.

Improve packaging and labelling technologies of products. Food packaging and labeling is one of the strategies to address food safety and quality standards. This is expected to improve product marketability, better consumer protection, prolong product shelf life, among others. Hence, development of processing and packaging technologies shall be pursued. Likewise, initiatives on exploring advanced and emerging technologies (e.g., food preservation, smart packaging, and targeted nutrition) including biotechnology shall be supported. DTI, DOST, and FDA will be the primary government agencies that will provide assistance to MSMEs, which will include packaging technology solutions, food preservation, nutritional value of food, information, education, and communication, and capacity building.

Nutrition across all ages improved

Adopt a whole-of-society approach in promoting healthy lifestyle and a culture of active health-seeking behavior among MIMAROPAns. The whole-of-society approach aims to address the root causes of poor nutritional status and detrimental behavior to health by prioritizing and harmonizing the implementation of health and nutrition related interventions and development and nutrition governance by the government, facilitating societal inclusivity, and ensuring active participation of all sectors across age groups and income classes.

To improve nutrition and promote healthy lifestyle and a culture of active health seeking behavior among MIMAROPAns, a whole-of-society shall be adopted. This involves: a) intensified promotion of diversified diet (using available local/traditional foods) and good eating practices; and b) improved health literacy. Utilization and consumption of indigenous species and varieties of plants and breeds of animals (e.g., native/wild pigs in Marinduque) should adopt the food plate model or the right food group proportions specified in DOST’s Pinggang Pinoy to meet the required energy and nutritional needs of an individual. On the other hand, health literacy across all ages shall be improved by tapping local schools and barangays in the conduct of IEC activities relative to the dissemination of affordable nutritious and healthy food alternatives that meet dietary requirements. Guidance and infographics on effective dietary and healthy lifestyle can be translated to local dialects and disseminated through official Facebook page of the LGUs and agencies to reach more stakeholders, particularly those living in GIDAs and depressed municipalities in MIMAROPA.

Government efforts shall focus on strategies that will improve the nutritional status of children and adults to address malnutrition in the region. The agencies concerned and LGUs shall formulate plans and policies aligned with the Philippine Plan of Action for Nutrition (PPAN).

Among the government’s flagship programs on nutrition is the Philippine Multisectoral Nutrition Project (PMNP), which aims to increase simultaneous utilization of a package of nutrition-specific and nutrition-sensitive interventions and improve key

health behaviors and practices known to reduce stunting in target LGUs. In MIMAROPA, the PMNP identified the provinces of Occidental Mindoro and Romblon as target areas. The implementation of PMNP started in 2022.

Implement measures to prevent and address wasting, stunting, and obesity. To generate more meaningful data for nutrition program planning and intervention at the local level, DOH together with the MIMAROPA provinces will provide support to increase the e-OPT plus coverage by at least 80 percent of the total estimated number of children (0-59 months old) in their respective areas. Assessment of effectiveness of local nutrition programs shall be conducted to address the gaps and challenges in the implementation of said programs.

To prevent and address early detection of child wasting and stunting, supplemental feeding programs for vulnerable groups (pregnant women-Tutok Kainan Dietary Supplementation Program and school children-micronutrient supplementation program) shall be enhanced.

DSWD and DepEd, in collaboration with the LGUs, will ensure the implementation of PMNP, together with the cascading of Tutok Kainan Dietary Supplementation Program and school children-micronutrient supplementation program. Said programs will focus on the provinces of Oriental Mindoro, Occidental Mindoro, and Palawan, which recorded highest prevalence rate of underweight, stunted, and wasted among 0-59 month old children in 2020 to 2022 among MIMAROPA provinces. The following areas will be prioritized: a) Oriental Mindoro (Mansalay, Bulalacao, Baco, Bansud, Bongabong, San Teodoro, Victoria, and Pola); b) Occidental Mindoro (Abra de Ilog and Paluan); c) Palawan (Balabac, Rizal and Cagayancillo).

Weight management programs shall also be included in primary health care services. The food for feeding programs and relief operations will: a) prioritize the provision of enhanced Nutribun and sesame seeds- and rice-mongo-based complementary foods developed by DOST-FNRI; and b) directly involve from farmers and fisherfolk groups and cooperatives.

Strengthen nutrition-specific, nutrition-sensitive, and enabling interventions especially at the local level. The Early Childhood Care and Development in the First 1000 Days (ECCD F1K) program facilitates

access to health services from pregnancy to 35 months old to promote the physical growth and development of the child. LGUs, in collaboration with DOH and NNC, shall: a) establish and maintain ethnicity disaggregation to monitor service delivery to indigenous peoples; and b) conduct capacity building to IPs as community health workers (cross refer to Chapter 2.1).

Efforts to promote ECCD F1K program in the region have already started and shall be sustained. In particular, the Regional Nutrition Committee (RNC) of MIMAROPA passed a resolution enjoining all LGUs in the region to adopt the ECCD F1K in their three-year local nutrition action plan (LNAP) and integrate LNAP into their annual investment programs and comprehensive development plans. Regional Development Council MIMAROPA also confirmed RNC Resolution No. 4, s. 2021, “Adopting the Scaling-Up Nutrition (SUN) 3.0 Strategy and Organization of SUN Movement Networks in MIMAROPA Region.” The SUN strategy was designed to further accelerate the achievement of the World Health Assembly targets by 2025 and the Sustainable Development Goals by 2030, particularly on eradicating extreme poverty and hunger. It identifies interventions emphasizing the provision of nutritional support to mothers and families and defines obligations and responsibilities of the government and other organizations and agencies.

To improve the effectiveness of local nutritional programs that are implemented in IP communities in the region, LGUs, in collaboration with DOH and NNC, shall: a) establish and maintain ethnicity disaggregation to monitor service delivery to indigenous peoples; and b) conduct capacity building to IPs as community health workers (refer to Chapter 4.1). The program will focus on the provinces of Oriental Mindoro and Occidental Mindoro and the city of Puerto Princesa, which recorded the highest prevalence rate of malnutrition among IPs compared to other MIMAROPA provinces.

Moreover, LGUs, in collaboration with NNC and DOH, will ensure that the following national nutrition-specific interventions at the local level, particularly to IP communities and GIDAs identified in the region, will be cascaded: a) Infant and Young Child Feeding; b) Philippine Integrated Management of Acute Malnutrition; c) National Dietary Supplementation Program; d) National Nutrition Promotion Program for Behavior Change; e) Micronutrient Supplementation; f) Mandatory

Food Fortification; g) Nutrition in Emergencies; and h) Overweight and Obesity Management and Prevention Program.

Enhance access to nutrition, food safety standards and food product certification. Food Testing Laboratories accredited by FDA shall be established in every province. This will ensure safety, quality, and security of food commodities as well as support services for value-adding of fresh produce and development of processed foods.

Moreover, promotion and facilitation of the following programs will be reinforced to keep high regard for environmental protection and workers' health, safety, and welfare while ensuring food safety and quality of agricultural products: a) Good Agricultural Practice (GAP) Program; b) National Halal Program; and c) National Organic Program.

Provision of capacity buildings and skills trainings on best practices and technologies on areas of sanitation and hygiene and processing shall be continued. Also, LGUs and national government shall integrate and adopt the concept of green jobs in their plans and programs.

In particular, promotion for good farming of chickens related to food safety shall be intensified. This includes encouraging households to practice free range chicken raising (pastured and traditional free range), which allows chicken in a confined environment to exhibit their natural behavior and access to forage, grasses, insects, and sunlight. Provision of free-range chicken (improved native) and poultry materials and conduct of poultry management training shall be continued to provide to households. Farms managed by AFF-based

cooperatives and associations adjacent to public markets or capital towns (e.g., Calapan City and Puting Cacao, Pola in Oriental Mindoro) will also be provided with large number of free-range chickens including housing and feeds to serve as multiplier farm and be able to supply poultry meat and eggs to localities.

Improve nutrition governance especially in local government units. National programs and projects to be cascaded at the local level will be maximized through convergence. Nutrition governance will be enhanced by: a) strengthening barangay nutrition scholar programs; b) establishing LGU nutrition offices; c) enhancing functionality of all Local Nutrition Committees and capacities of Local Nutrition Workers; and d) strengthening coordination system between the national and local government through the NNC.

Section 16 and 17 of the LGC provides that the LGUs shall exercise powers to ensure and support the promotion of general welfare in its territorial jurisdiction through the provision of basic services and facilities including health, nutrition, and sanitation services. With the full devolution of certain functions of the national government agencies to the LGUs, all LGUs are enjoined to prioritize the programs, projects, and activities included in their respective local nutrition action plans, which shall be formulated in accordance with the PPAN 2017-2022 in the allocation of local funds. In 2011, The Regional Nutrition Committee (RNC) MIMAROPA enjoined all , local government units to create nutrition offices and appoint permanent Nutrition Action Officers (NAO) with adequate support staff to implement the local nutrition action plans and programs.

Legislative Agenda

Table 5.1.2 Legislative Agenda to Ensure Food Security and Proper Nutrition

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Enactment of Urban Agriculture Law	The proposed law aims to promote urban agriculture and vertical farming in the country's metropolitan areas as an instrument to contribute to attaining food security. Under this proposal, the use of available government- and private-owned land resources in urban areas suitable for growing crops and raising poultry, livestock, and aquaculture will be promoted for agriculture purposes.	DA, DILG, LGUs, DepEd,
	The region's vulnerability to climate and natural hazards coupled with its archipelagic nature make the region more susceptible to supply chain disruption, which in turn causes insufficiency in food supply. The promotion of urban gardening and vertical farming will ensure sufficient, safe, and nutritious food for the increasing population of MIMAROPA provinces, particularly in communities identified as GIDAs. It will also provide alternative source of income to seasonal workers.	
Creation of Nutrition Offices and Appoint Permanent Nutrition Action Offices with Adequate Support Staff to Implement the Local Nutrition Action Plans and Programs	The creation of Nutrition Office with adequate staff is critical to improve the local nutrition status. This will ensure that the implementation of the above-cited policies, plans, and programs will benefit target groups and the planning and implementation of nutrition-specific and nutrition-sensitive programs with multi-sectoral participation will contribute in the reduction of malnutrition and improved human capital development.	LGUs in MIMAROPA
Adoption of the Early Childhood Care and Development in the First 1000 Days (ECCD FIK) Program	The ECCD FIK Program contains comprehensive package of nutrition specific, sensitive, and enabling interventions to reduce morbidity, mortality, and stunting and wasting prevalence among children 0–23-month-old, and is expected to improve the quality of the country's human resource base, thereby contributing to poverty reduction. The LGUs in MIMAROPA shall adopt the ECCD FIK through the inclusion of relevant components of the ECCD FIK Program in the three-year local nutrition action plan (LNAP). The LNAP shall be integrated in various plans and programs such as comprehensive development plans, annual investment program (AIP), and local development investment program (LDIP).	LGUs in MIMAROPA

Sub-chapter 5.2 Strengthen Social Protection

The MIMAROPA region needs a revolutionary social protection system that equips every MIMAROPAn with the skills necessary to avoid potential shocks, respond to them, and recover from them. Such a radical approach would go beyond risk management interventions and incorporate solutions to structural weaknesses and social inequalities that will assist in gaining access to programs that cover all forms of risks over the course of their lives.

This sub-chapter discusses the social protection programs that must be available to everyone, especially the underprivileged, disadvantaged, and excluded. As people continue to confront risks from natural disasters, political unrest, economic instability, health-related shocks, and other unforeseen events, reducing the number of vulnerable sectors is still one of the region's top goals. Given the COVID-19 pandemic's effects on the area in recent years, MIMAROPA was more motivated than ever to enhance and step up the delivery of social protection programs and solutions in the years to come.

Assessment and Challenges

Improved disaster response to families affected by calamities. From 2020 to 2021 A remarkable increase in the number of clients served through Assistance to Individuals in Crisis Situations (AICS) of the DSWD was observed in 2021. The department also achieved notable accomplishments on disaster response to families affected by natural and human-induced calamities such as core shelter assistance, food packs, cash for work, food for work, and emergency shelter assistance (ESA). However, coordination between and among agencies and LGUs on the implementation of projects should be strengthened to avoid duplication of similar programs, projects, and activities (PPAs). Also, mental health and psychosocial services in the disaster response should be given importance.

Increased number of senior citizens provided with social pension. From 2020 to 2021, there were significant increase in the number of senior citizens provided with social pension, many senior citizens are yet to be covered by the program. However, substantial number of beneficiaries on Social Pension for the

Indigent Senior Citizens (SPISC) program need to be covered the RDP target for 2021 was not achieved.

Ensured workers protection during pandemic. The Government intensified its implementation on several livelihood assistance and other social safety net programs for various workers in the formal and informal economy.

MIMAROPA has 84,590 beneficiaries of COVID-19 Adjustment Measures Program (CAMP) in 2021. The region also recorded a total of 1,589 displaced land-based and sea-based Filipino workers who received financial assistance through the DOLE-Overseas Workers Welfare Administration (OWWA)-AKAP. DSWD MIMAROPA reported 107 workers, including migrant workers, who were covered by their social protection services. They also provided intervention and social services to the 28 trafficked persons.

Successful implementation of 4Ps in MIMAROPA. In 2021, one-fifth of the population in the region is considered poor, which translates to 667,900 people. The Pantawid Pamilyang Pilipino Program (4Ps), the prime social protection program in the region, has already surpassed the 2021 MIMAROPA Regional Development Plan (RDP) target by providing regular and modified conditional cash transfers (R/MCCT)

to 200,714 household beneficiaries. This is more than 1.56 percent above the RDP end-of-plan target of 197,623 household beneficiaries. The increase in the coverage was due to the number of beneficiaries reinstated in the program and the registration of Set 11 households. Being said, it was evident that the program in the region is on track in terms of achieving its goals of improving child education and health outcomes. However, despite the successful implementation, some issues need to be resolved such as; (1) late pay-out, (2) unfairness due to poor screening, and (3) not enough subsidy to meet the increasing prices of today's goods and commodities.

About 7.5% of the region's population are food-poor. A large part of the population in the region is considered food-poor, which translates to 239,600 of the total population in 2021. To address the poverty and hunger in the region, DSWD MIMAROPA launched the Enhanced Partnership against Hunger and Poverty (EPAPH) in November 2021. Proper implementation and close monitoring of the EPAPH and other similar programs in alleviating poverty and hunger should be given importance in able to achieved zero food poor in the region by the end of 2028.

Strengthened social services for women and children. Supplementary Feeding Program (SFP) has served a total of 73,544 children, which was 10 percent lower than the RDP target for 2022. The decrease may be attributed to the challenges on procurement such as the lack or limited number of qualified suppliers of SFP goods in the MIMAROPA areas.

Through the provision of livelihood grants to the families of child laborers, the DOLE MIMAROPA was able to remove 390 children aged 5-17 years old from child labor in 2021.

The region, through the DSWD MIMAROPA, also recognized the need to ensure rehabilitation and reintegration of the children in conflict with the law (CICL); it served 41 clients in 2021 through the MIMAROPA Youth Center (MYC).

In 2021, five women in especially difficult circumstances (WEDC) or those victims and survivors of sexual and physical abuse, illegal recruitment, prostitution, and trafficking, armed conflict, women in detention, victims and survivors of rape and incest, and such other related circumstances were assisted by the region. In the five provinces of MIMAROPA, the Philippine National Police MIMAROPA recorded a total of 266 occurrences of abuse cases to women and their children. Additionally, 322 instances of gender-based violence against women, including e-VAW, were documented. Effective implementation of existing policies and programs to protect woman must be ensured.

Limited IEC for persons with disability especially in GIDAs. Many persons with disability become vulnerable to physical and psychological violence because of their disability. It was evident in the country, persons with disability (PWD) were facing discrimination, abuse, exploitation, and bullying because of their attributes. Also, support services are lacking, and government policies and programs are poorly implemented in the region.

Access to existing services remains a concern for PWD, specially those who were residing in far-flung communities.

Slow processing of Certificate of Ancestral Domain Titles (CADTs). The IPs were generally considered the poorest among the vulnerable groups. MIMAROPA is one of the regions with high numbers of IPs which there were issues concerning basic human rights, war and conflict resolution, employment opportunities and discrimination, jurisdiction and ancestral domain, and preservation of their cultures and traditions.

According to NCIP MIMAROPA, as of 31 July 2022, of the 154 IP ancestral domain universe ("CADTeable" or those that can be applied for CADT), there were 112 CADT applications filed: 7 registered, 17 approved by CEB, 95 going delineation process, and 36 no application.

Targets

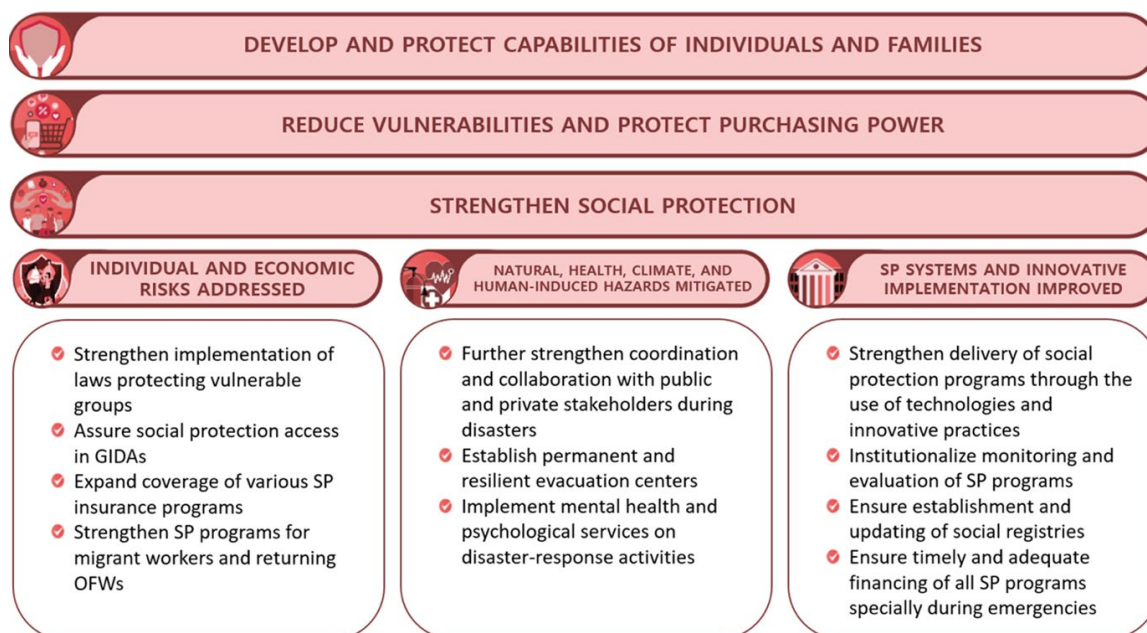
Table 5.2.1 Indicator Matrix

INDICATOR	BASELINE (2021)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of families with Registered Members and Beneficiaries of PhilHealth	89.00% (2021)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	Admin data (proxy)	DSWD, Philhealth
Number of poor households covered by RCCT/MCCT	200,714 (2021)	210,750	220,786	230,822	240,858	250,894	260,930	Admin data	DSWD
Number of eligible senior citizens covered by social pension	159,594 (2021)	178,292	196,990	215,688	234,386	253,084	271,781	Assuming 100% target by 2028 (Based on PSA 2020 household population above 60 years old)	DSWD/PSA
Total expenditures on SP programs as percentage to GRDP	1.79%	2.22%	2.64%	3.07%	3.58%	3.92%	4.34%	Admin data	PSA/DSWD/DBM

Sources: MIMAROPA Regional Development Report 2021; PDP 2023-2028 (Pre-publication Version) as of 15 December 2022; PSA data on Household Population by Age Group and Sex_Philippines_2020 CPH_rev.

Strategies

Figure 5.2.1 Strategy Framework to Strengthen Social Protection



Individual and economic risks addressed

Strengthen implementation of laws protecting vulnerable groups. Implementation of various laws protecting the vulnerable groups such as women, children, older persons, indigenous peoples, and PWD need to be further strengthened. This includes wider and more effective ways of information, education, and communication on various rights of different vulnerable groups. The region will encourage and promote any activities advocating awareness of laws addressing gender-based issues and concerns, protective measures, etc. Various laws provide programs, projects, services, and institutional mechanisms that vulnerable sectors may use to improve their condition. Among them were: (1) RA 11188, (2) VAWC, (3) Domestic Workers Act, (4) RA 11228.

Children. To address the needs of kids during armed conflict, the Special Protection of Children in Situations of Armed Conflict Act, or Republic Act No. 11188 will be properly implemented. To lessen child stunting and wasting, nutrition initiatives that have been put in place nationwide shall also be maintained. This could be included in the Nutrition Chapter. Though the challenges on procurement regarding the lack or limited number of qualified suppliers of Supplemental Feeding Program goods in the MIMAROPA areas will be addressed.

Key programs addressing child labor in the region shall be executed with a comprehensive and multi-stakeholder approach. These are anticipated to cover the economic, social, and psychological components of child labor. These programs involve enhancing coordination systems and providing sufficient funding to address the worries of impacted families. These will also involve setting up strategic helpdesks and referral networks across. Likewise, the region shall support the Child Labor Prevention and Elimination Program.

Children who are abandoned by their OFW parents, those who are involved in armed conflict, those who are in dispute with the law, and those who have suffered trauma from disasters shall also receive mental health and psychosocial care.

Women. Provide policies and programs to protect women and women in especially difficult

circumstances (WEDC) including Violence Against Women and Children Act of 2004 and the Domestic Workers Act or Batas Kasambahay must be ensured. Under VAWC, a woman victim of violence shall be entitled to the custody and support of her child/children.

Children under seven (7) years old or older with mental or physical disabilities shall automatically be given to the mother, with the right to support, unless the court finds compelling reasons to order otherwise. The Batas Kasambahay states that, all kasambahay shall be treated with respect by the employer or any member of the household. He/she shall not be subjected to any abuse, including repeated verbal or psychological, nor be inflicted with any form of physical violence or harassment or any act tending to degrade his/her dignity.

Persons with disability. To help people with disability cover some of the costs associated with their unique conditions, the region must give disability support allowance. They will be given appropriate PhilHealth benefit packages in addition to mandatory membership coverage as a supplementary aid as mandated in the Republic Act 11228 An Act Providing For The Mandatory Philhealth Coverage For All Persons With Disability, Amending For The Purpose Republic Act No. 7277, As Amended, Otherwise Known As The “Magna Carta For Persons With Disability”.

Senior Citizens. The Expanded Senior Citizens Act of 2010’s Social Pension Program’s aims to ensure that no senior person is left behind. Also, the region shall empower civil society organizations, such as senior citizens’ groups, to be active in various dialogues and development meetings within the region. This is to guarantee the inclusion of relevant programs and activities in the implementation of laws, policies, and programs relevant to them.

Indigenous Peoples. The absence of basic social services like health care and land-related harassment are two of the biggest issues that the indigenous people are facing. The region will keep advocating for the protection of indigenous minorities, especially those who are trapped in conflict and those living in communities where land is being taken. The region will also exert every effort to make sure that indigenous communities obtain essential social services.

DSWD MIMAROPA proposed a number of programs for the implementation of laws protecting vulnerable groups for fiscal years 2023–2028, such as Residential Care (MIMAROPA Youth Center), Php 45.94 million; Supplemental Feeding Program, Php 389.41 million; Alternative Parental Care Program, Php 90.21 million; Assistance to Individuals in Crisis Situation (AICS), Php 503.92 million. In addition, DOLE MIMAROPA proposed Php 24.42 million for the Child Labor Prevention and Elimination Program (CLPEP).

Assure social protection access in GIDAs. To ensure social protection in GIDAs, convergence of regional line agencies and LGUs shall intensify the provision of services and projects, (e.g. registration of indigenous peoples in the PhilSys, basic infrastructure). The government will likewise tap NGOs and other civil society sectors that target people in GIDAs. The Bayanihang Bayan Program (BBP) or the Volunteer Program for Government Service is a platform for private sector volunteering services to support government agencies and local government units by virtue of the Volunteer Act of 2007, or Republic Act No. 9418. BBP engages the volunteer assistance of the private sector in the implementation of government programs and projects for stronger partnership between and among the stakeholders.

The Local Government Support Fund–Support to Barangay Development Program (LGSF-SBDP) is the government's priority program to usher development and deliver basic services to geographically isolated and disadvantaged areas (GIDAs). The Barangay Development Projects are socioeconomic development projects geared toward the provision of farm-to-market roads, health centers, electrification, water and sanitation facilities, schools, and livelihood projects. For FY 2021, 25 barangays in MIMAROPA were provided with 20 million pesos each for their priority projects amounting Php 500 million. Among the barangays in MIMAROPA that already received their fund allocation for Occidental Mindoro include: Balao, Cabacao, San Vicente, Udalo, and Wawa in Abra de Ilog; Purnaga in Magsaysay; Harrison, and Mananao in Paluan; and Batasan in San Jose. For Oriental Mindoro, among the recipient-barangays include: Benli, Milagrosa, Nasukob, and San Isidro in Bulalacao; Panaytayan in Mansalay; Bugtong na Tuog in Socorro; and Villa Cerveza and Buong Lupa in Gloria. For Palawan, among the recipient-barangays include Amas, Salogon, Samariñana, and

Saraza in Brooke's Point; Abaroan, Dumarao, and Magara in Roxas; and Villa Fria in San Vicente.

For FY 2022, 54 barangays were provided with Php 4 million each to fund their priority projects amounting Php 216 million. Out of the 54 barangays 35 barangays are located in Palawan, 12 barangays in Occidental Mindoro, and 7 barangays in Oriental Mindoro.

Expand coverage of various SP insurance programs. Progress in the delivery of social protection programs in the region was evident in previous years. Efforts to consolidate programs and improve targeting, design, and implementation of various SP programs were properly documented and it has been observed that it contributed to reduction of poverty and inequality. However, there is a need to increase coverage, improve implementation, and coherence of social protection policies. Expansion of coverage of the SP insurance programs should be promoted to achieve a universal social protection for all MIMAROPAns. The current SSS and GSIS systems shall be examined, and alternative plans to expand coverage and benefits must be identified.

Strengthen SP programs for migrant workers and returning OFWs. The region shall support the implementation of the numerous initiatives offered to OFWs. The goal is to map out the various options and opportunities that are available such as to settle, retire, or re-enter in the local workforce or business entrepreneurs to them upon their return to the region. The Department of Migrant Workers proposed “one-stop shop” would assist returning OFWs in making livelihood choices.

A total of Php 6.43 million was proposed by DSWD MIAMROPA through Social Welfare for Distressed Overseas Filipinos and Trafficked Persons Program. Targeted and demographic-specific programs are need as well, such as the DOLE Balik Pinay, Balik Hanapbuhay (BPBH), which combines training and production intervention programs to provide distressed women OFWs with livelihood skills to improve their socioeconomic well-being. The Agri-Negosyo Para sa OFWs program by the DTI, meanwhile, offers a menu of agriculture and agribusiness-related programs and services of the various agencies all under one roof.

Natural, health, climate, and human-induced hazards mitigated

Further strengthen coordination and collaboration among stakeholders during disasters. To withstand and recover from natural and human-caused disasters, it is essential that individuals and communities shall work together to anticipate threats, minimize effects, and rapidly restore functionality after a crisis. The lead agencies must be able to further strengthen the coordination and collaboration among stakeholders in the region in the delivery of SP during disasters and emergency response operations. It is necessary to identify resources, capacity building, structural mechanism, responsibilities and deliverables of each sector, institution, and stakeholder management to facilitate in various stages such as prevention, mitigation, and rehabilitation.

Effective communication plans and strategies must be also developed during emergency response operations in the delivery of SP programs and services. Communication is critical in strengthening coordination and collaboration among agencies. Communication plan for delivery of SP programs and services shall suit island/provincial configuration. It shall promote alternatives in the change in implementation, delivery system, change of personnel and resource mobilizations.

Establish permanent and resilient evacuation centers. Appropriate facilities will be created to house the affected families to reduce the usage of classrooms as evacuation centers during disasters. The evacuation centers will be permanent, earthquake- and typhoon-resistant, and they must also be created with the needs of children, women, people with disabilities, and the elderly in mind. According to OCD MIMAROPA, 18 permanent evacuation shelters have already been constructed in the region as of December 2022, with some still under development and others nearing completion. To secure the safety of the MIMAROPAns during a crisis, the government shall be able to identify the minimum number and the location of evacuation centers in the region and fund the construction of these disaster-resistant facilities. Every municipality in the region shall have an evacuation center, and LGUs should be encouraged to build such.

Implement mental health and psychosocial services on disaster-response activities. There are many lessons learned during big disasters like Typhoons Quinta, Rolly, Ulysses, and Odette,

mental health and psychosocial services are among important interventions which involve many players from government agencies, NGOs, local authorities, and the community itself. The main priority of mental health is to reintegrate people back into their normal lives. Humanitarian and social assistance is an important part of the work to improve mental health of populations affected by disasters but should be complemented with other specific government interventions. The region shall ensure the provision of gender-sensitive and child-friendly mental health and psychosocial services to victims of disasters.

SP systems and innovative implementation improved

Strengthen the delivery of social protection programs using technologies and innovative practices. The integration of digital technology in the implementation of social protection services is driven by the demand for more accurate and efficient services, among public and private institutions. Automation improves data management, reducing workloads and enabling implementers to make more informed decisions. It also provides convenience, faster service, and better security for beneficiaries and the public. The need for transparency also drives the move toward digital technology integration of social protection programs. The establishment of database management system addresses duplication and allows for greater transparency of beneficiary lists for social protection programs. It will also help to increase coverage of the programs. With the advances in and adoption of digitalization technologies, digital payment platforms can be integrated with cash transfer programs. For example, development partners utilized the 4Ps payment platform during emergency responses and they were able to reduce their administrative and transaction costs significantly.

Institutionalize monitoring and evaluation of SP programs. Institutionalization of monitoring and evaluation (M/E) systems is a requisite for resilient, effective, and efficient social protection programs. This shall be conducted regularly among service providers to be able to modify, refine, or even terminate programs to improve implementation and attain the desired results. M/E establish accountability and transparency in the utilization of public funds. Also, it is useful in assessing how convergence among stakeholders at all levels is achieved.

The RDC secretariat maintains a web-based M/E system (ProyekTanglaw) which may be utilized to monitor and evaluate SP programs. RDC secretariat also provides technical assistance for LGUs and RLAs on capacity building of the establishment of monitoring and evaluation system.

Ensure establishment and updating of social registries. Social registries for vulnerable groups shall be created and maintained by concerned agencies and LGUs. The registries of various government entities will be synchronized and integrated with the national ID system to prevent gaps or overlaps. This registry will facilitate targeting, authentication, registration, and enlistment easier. (Some registries must also be connected to the database of particular locations that will emanate from the Community-Based Monitoring System (CBMS) for the delivery of benefits. These coordinated efforts will also make it easier to design new programs.

The enactment of the Community-Based Monitoring System (CBMS) Act, or Republic Act No. 11315, with its Implementing Rules and Regulations (IRR) institutionalized technology-based system of collecting, processing, and validating locally disaggregated data. This CBMS data may be used for planning, program implementation, and impact monitoring at the local level while empowering communities to participate in the local information system. CBMS aims to establish a database at the national and city/municipal levels and to generate relevant statistics at higher levels that will complement and supplement the local level data. In MIMAROPA, between August and October 2022, 45 municipalities are reportedly implementing CBMS, according to PSA MIMAROPA. In relation to this, the region encourages the creation of CMBS databases on each LGU while also encouraging them to keep the databases up to date on a regular basis.

Philippine Identification System (PhilSys) will be vital in the establishment of social registry. It aims to provide valid proof of identity for Filipino citizens and resident aliens in the Philippines to promote effective and efficient transactions with the public and private sectors. As of December 2022, the number of PhilSys registered population in the region was 2,364,143. Also, the number of Physis Identification Cards released by the PSA was 773,355 ePhilID issued and 106,189 PhilID delivered through post offices. According to the PSA, the system aims to contribute to enhancing administrative governance, reducing corruption, and promoting ease of doing business. Additionally, it will help the government's objectives to strengthen social protection and financial inclusion as well as hasten the Philippines' transition to a trustworthy and inclusive digital economy. To hasten the issuance of a national ID, LGUs should encourage their constituents to register in the system. Additionally, LGUs shall assist in the distribution of written and electronic materials, make mobile announcements, and broadcast registration-related updates from the official PhilSys social media pages.

Ensure timely and adequate financing of all SP programs, especially during emergencies. The region shall work more closely with the commercial and civil society sectors to raise more funds for SP projects. This is to guarantee that the SP's emergency responses will have enough funding. The timely replies of SP programs are achievable with enough resources. Additionally, the processes for releasing funds at these times need to be improved and ensured.

In relation to the devolved function to LGUs, LGUs should allot funding for social protection programs/projects as part of their annual IRA for local development. Proper implementation, utilization, and monitoring of the local disaster risk reduction and management fund (LDRRMF) shall be encouraged and promoted to LGUs.

Table 5.2.2 List of Major Programs and Projects to Strengthen Social Protection

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (PHP '000)						TOTAL 2023 – 2028 INVESTMENT TARGET (PHP '000)
		2023	2024	2025	2026	2027	2028	
Pantawid Pamilyang Pilipino Program (4Ps)	All 5 provinces	5,216,846.00	5,273,143.00	4,883,287.00	4,883,287.00	5,029,785.00	5,180,679.18	30,467,027.79
Sustainable Livelihood Program (SLP)	All 5 provinces	206,968.00	210,789.00	222,321.00	234,993.00	242,042.79	249,304.07	1,366,418.07
Supplementary Feeding Program	All 5 provinces	161,564.00	43,624.00	44,934.00	45,065.00	46,417.42	47,809.53	389,414.95
Social Pension for Indigent Senior Citizens	All 5 provinces	1,172,542.00	1,228,321.00	1,255,740.00	1,280,126.00	1,318,530.68	1,358,086.62	7,613,349.30
Assistance to Individual in Crisis Situation (AICS)	All 5 provinces	138,370.00	127,071.00	130,883.52	34,810.46	35,854.76	36,930.29	503,920.03
Residential Care (MIMAROPA Youth Center)	All 5 provinces	9,579.00	16,903.00	16,369.90	1,000.00	1,030.00	1,060.90	45,943.20
Alternative Parental Care Program	All 5 provinces	10,601.04	14,994.24	15,444.07	15,907.39	16,384.61	16,876.15	90,207.49
Social Welfare for Distressed Overseas Filipinos and Trafficked Persons Program	All 5 provinces	869	819	1,132.62	1,166.60	1,201.60	1,237.65	6,426.48
Child Labor Prevention and Elimination Program (CLPEP)	All 5 provinces	-	4,000.00	4,400.00	4,840.00	5,324.00	5,856.40	24,420.40

Sources: *Regional Development Investment Program 2023-2028 of DOH MIMAROPA and POPCOM MIMAROPA*

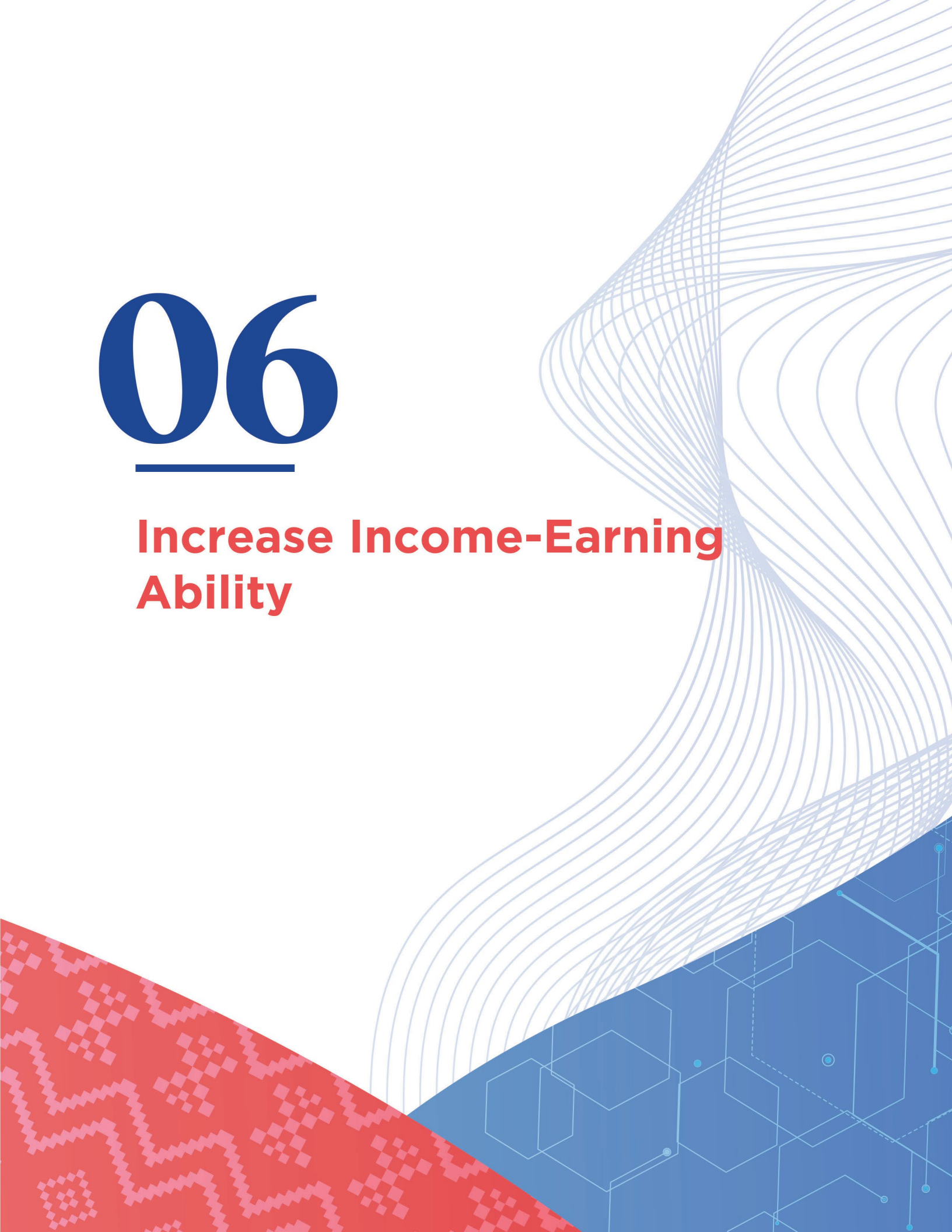
Legislative Agenda

Table 5.2.3 Legislative Agenda to Strengthen Social Protection

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Continuous Monitoring and issuance of joint (congressional) resolution that address adequacy of social security pensions to prevailing economic realities Bill	Joint resolution mandating the implementation of the second tranche of the social security pension increase effective January 1, 2022 to cushion the impact of new taxes and rising prices of goods and services, and to provide social protection for pensioners.	SSS
Persons with Disability Financial Resilience Bill	An act institutionalizing the provision of financial assistance, social pension, and financial protection for Filipino PWD, and for related purposes.	DSWD
Universal and Integrated Social Protection System	The need for a legal framework that will rationalize SP programs towards an integrated system were there is: • Recognition of SP as a basic right provided by the state; • Institutionalization of SP floor; • Establishment of effective coordination structures; • Establishment and updating of social registries; • Enhancement of digital payment platforms; and • Sustainable financing (See Chapter 11.1) and partnerships with the private and civil society sectors	DSWD and NEDA
Magna Carta of Workers in the Informal Economy	The proposed bill seeks to remedy the shortcoming in our legal system by affirming and establishing as a matter of law the rights, protection, and security afforded to workers and economic units in the informal sector, including rights and labor standards guaranteed to all workers and the entire labor force under the Constitution and relevant labor laws.	DSWD, DILG, DOLE, and DICT

06

**Increase Income-Earning
Ability**



INCREASE INCOME-EARNING ABILITY

By 2028, MIMAROPAns shall have improved their income-earning ability that can better support their goals and objectives to have a stable and comfortable lifestyle, secure in the knowledge that they have enough for their daily needs and unexpected expenses.

The workforce must be developed in order to increase the employability of MIMAROPAns in the local and international job market. Skills training and alignment with current and emerging jobs shall be ensured. It is essential to create a dynamic social partnership based on shared accountability to attain a responsive, equitable, and effective labor market. Employment facilitation procedures that are effective and efficient shall also enable easier and more strategic job search.

Assessment and Challenges

In 2018, TESDA formulated the National Technical Education and Skills Development Plan (NTESDP) 2018-2022, which aims to inform the TVET actors, movers, and leaders in crafting responsive policies and implementing programs and projects to strengthen the sector. It aims to realize its goal through a two-pronged strategic thrust: (1) global competitiveness and workforce readiness and (2) social equity for workforce inclusion and poverty reduction.

On February 22, 2019, President Rodrigo R. Duterte signed the “Tulong Trabaho Act,” which aims to develop the skills of the Filipino labor force by providing free access to TVET which is expected to result in improving the country’s employment rate. This also seeks to address unemployment and jobs mismatch by assessing the current requirements of industries.

The NTESDP also identified priority sectors and classified these into three groups. Tourism/hotels/restaurants, construction, IT-BPO (IT-BPM), transport, communication and storage comprise the first group; these belong to industries that have large employment bases and showed rapid

growth. The second group consists of agriculture, fisheries, and forestry, including agro-processing and manufacturing, followed by electronics. This group is under industries that have large employment bases but have exhibited negative or minimal growth rate in the past. These industries are important to the economy in terms of value-added and employment. The third group composed of industries in health, wellness, and other social services are sectors with high growth rates and have good incremental economic effects.

Out of the TVET graduates, it was observed that there was a decrease in the number of employed. But this was still above the RDP target. According to the TESDA Study on Employment of TVET Graduates in 2020, it was estimated that labor force participation rate of graduates in the region was at 70.00 percent with higher employment of graduates from Enterprise-Based Training institutions.

From the three sectors with the highest enrolment and graduates, AFE, Automotive and Land transportation and tourism, TVET graduates who were employed in these sectors earned monthly incomes ranging from Php 300.00 to Php 990,000.00. The lowest and highest monthly incomes came from the tourism sector. A greater proportion of those who searched

for a job after training (83.0%) were able to land a job in less than a year.

It was also noted that there was higher employment among TESDA Technology Institutions (TTIs) graduates than graduates from non-TTIs. As of 2021, there were 11 TTIs in all provinces in the region which undertake direct training for TESDA.

There were also improvements on the number of partnerships forged in 2021. The AFF sector had the highest share, followed by tourism and metals and engineering. Further, the highest number of partnerships were with the private sector and LGUs.

The region's working age population increased by 10.65 percent from 1,221,000 in 2020 to 1,351,000 in 2021. The labor force participation rate also increased by 5.34 percentage points from 59.58 percent in 2020 to 64.92 percent in 2021. This can be attributed to the number of people seeking jobs in adjacent regions since local travel restrictions imposed in 2021 were more relaxed compared to the restrictions imposed in 2020.

Employment rate decreased by 0.60 percentage point from 92.75 percent in 2020 to 92.15 percent in 2021. The region's employment rate was higher by 2.41 percentage points compared to the national average employment rate of 89.74 percent. This can still be attributed to the imposition of varied movement restrictions and alert level systems in different provinces and weather disturbances and typhoons that hit the region and affected the productivity of farmers and fisherfolks. On the other hand, the region's unemployment rate of 7.8 percent was lower by -2.41 percentage points compared to the national average unemployment rate of 10.26 percent. This was however higher by 0.60 percentage point compared to 2020's 7.25 percent.

The underemployment rate increased by 3.87 percentage points from 23.86 percent in 2020 to 27.73 percent in 2021. This was also higher by 11.49 percentage points compared to the national average underemployment rate of 16.24 percent.

The MIMAROPA Regional Tripartite Wages and Productivity Board has passed several wage orders since 2017 to ensure competitive compensation among workers and enable them to cope with rising costs of living. The minimum wage rates for establishments with 10 workers and above increased by Php 70.00 per day from Php 285.00 per day in 2017 to Php 355 per day in 2022. Likewise, the minimum wage rates for establishments with less than 10 workers increased by Php 94.00 per day from Php 235.00 per day in 2017 to Php 329.00 per day in 2022.

The number of industries in the region that could take on a large number of on-the-job trainees was constrained. In MIMAROPA, there are very few industries with long-term OJT programs. Additionally, very few businesses have efficient hiring strategies.

Philippine Standard Industrial Classification (PSIC) and Philippine Standard Occupational Classification (PSOC) are not updated, particularly for new professions and emerging sectors. The new jobs include ISO Officer, IEC Officers, Land Use Planners, Real Estate Broker, Virtual Assistant on Online System and Social Networking; Speech Pathologist; Regenerative Specialist; and Plastic Fabricator. On the other hand, future jobs include Mine Tourism Officers; Aerospace manufacturing; Repair and Overhauling; Equipment and Maintenance; Fabricator; Equipment Control Officer; Animator; Plant Nutrition Specialist; Seaweed Farmer Technician; and Plant Pathologist. Labor Market Information (LMI) dissemination is insufficient for developing policies, hiring employees, and guiding career paths.

Targets

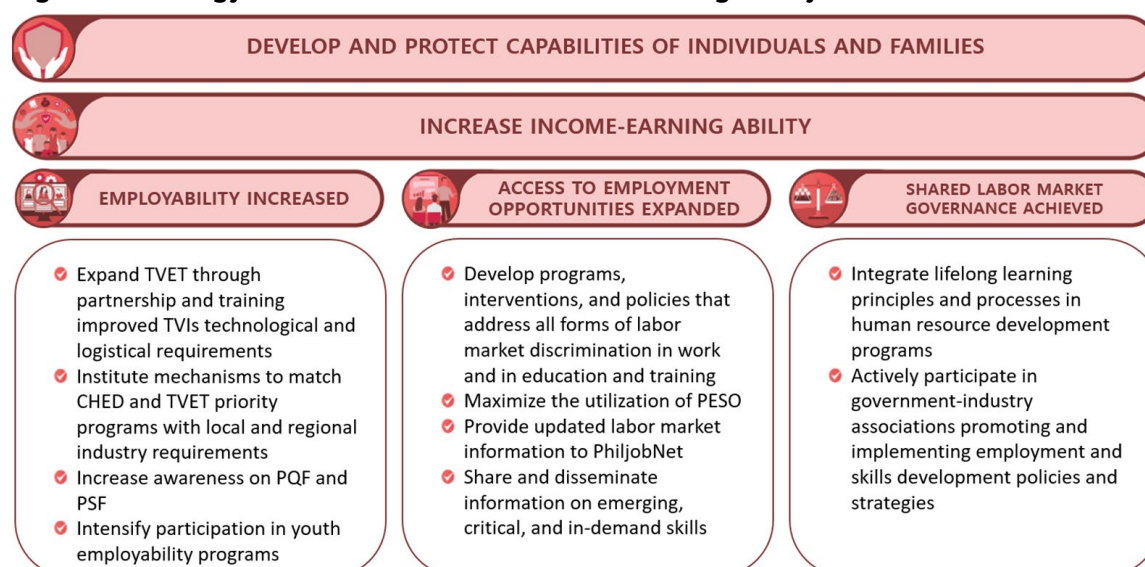
Table 6.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END-OF-PLAN TARGET	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
TESDA Certification Rate in priority sectors (%) increased*	2021	92%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%		TESDA Admin Data
Employment rate of TVET graduates (%) increased*	2022	93.4	94-96	94-96	95-96	95-96	95-96	95-96	95-96	SDC
Employment rate increased	2021	91.9	94.4 (high) 93.7 (low)	94.8 (high) 94.7 (low)	94.5 (high) 94.4 (low)	94.7 (high) 94.6 (low)	95.0 (high) 94.9 (low)	95.1 (high) 94.9 (low)	95.1 (high) 94.9 (low)	DOLE/POEA/PSA LFS
Unemployment rate decreased	2021	8.02	7.37 (low) 6.87 (high)	6.80 (low) 6.30 (high)	6.23 (low) 5.73 (high)	5.66 (low) 5.16 (high)	5.08 (low) 4.58 (high)	5.08 (low) 4.01 (high)	5.08 (low) 4.01 (high)	DOLE/POEA/PSA LFS
Underemployment rate decreased	2021	27.7	26.5	25.00%	23.50%	22.00%	19.50%	18.00%	18.00%	PSA LFS
Placement rate (%) of Public Employment Service Offices (PESOs) increased*	2022 Sept.	91%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%		DOLE Admin Data
Percentage of MSMEs (%) that implemented productivity improvement program increased*	2022	69%	69-70	69-70	70-75	70-75	70-75	70-75	70-75	DOLE Admin Data

Sources: TESDA, SDC, DOLE, POEA, and PSA

Strategies

Figure 6.1 Strategy Framework to Increase Income-earning Ability



The strategy framework highlights the importance of educational qualifications, training credentials, skills, and competencies that enhance employability. It also emphasizes the need to strengthen interventions that

improve access to employment opportunities. Lastly, it underlines the need to improve labor market governance, with an emphasis on collaboration and shared responsibility.

Employability increased

Expand TVET through partnership and improve training through meeting TVIs technological and logistical requirements. Collaboration with LGUs, NGOs, industry associations, and other organizations shall be intensified to produce a targeted training needs provision and programs necessary for reskilling and upskilling.

Provincial Employment Services Offices (PESOs) shall be tapped to conduct information drives on skills requirements and projections in their communities. Awareness and advocacy campaigns shall also be undertaken to capacitate community TVIs and HEIs on transferring technology, learning methodologies, and training modules of partner industry associations. LGUs can also provide subsidies on the preparation of business projects of students in community-based training institutions.

The micro-credentialing system through the TESDA online programs and massive open online courses (MOOC) shall be strengthened for online certification, onsite services, and other delivery methods of learning.

Assistance shall be rendered to the region's TVET sector to upgrade their facilities and other logistical requirements based on international qualifications. This also includes addressing the workforce needs of the basic sector for social and economic inclusion.

Culture of innovation shall be nourished in the TVET sector through the establishment of innovation centers and mechanisms to encourage innovation, research, and development in organizations and the general public. This shall complement the current project of TESDA Supporting Innovation in the Philippine Technical Vocational Education and Training System (SIPTVETS), which aims to help modernize and reform the Philippine TVET system.

Institute mechanisms to match CHED and TVET priority programs with local and regional industry requirements. TVET shall be flexible in addressing

major concerns of identified priority industries. Thus, the growing demand for workers in various industries requires the government to anticipate and prioritize TVET programs.

Skills need anticipation and forecasting shall be done particularly in sectors with quality jobs and those with high enrolment and graduates in the region. There is a need for TVI- and training-level information systems that shall contain training offerings, costs, passing rates in national certifications, as well as employment rates for every sector.

To improve relevance of TVET, industries shall be encouraged to participate in the development of competency standards, training regulations, and curriculum aligned with technical and soft skills demanded by the industry. Modernized and specialized training centers shall also help in further refining the reskilling and upskilling needs of TVET students.

Enterprises play a vital role in defining the skills requirements and standards of occupational profiles. Increase in employability and readiness of students shall be achieved if employers can facilitate training deliveries from internships, on-the-job trainings, industry immersions, and apprenticeship programs to produce accurate and timely skills anticipation results. Hence, collaboration between TVIs and companies shall be promoted to further strengthen the TVET process.

Increase awareness on PQF and PSE. The implementing rules and regulations of the Philippine Qualifications Framework (PQF) Act were approved on January 15, 2019. The PQF was institutionalized to encourage lifelong learning of individuals, provide employees specific training standards and qualifications aligned with industry standards, ensure that the training and educational institutions comply with specific standards and are accountable for achieving corresponding learning outcomes, and provide government with a common taxonomy and qualifications typology as bases for recognizing education and training programs as well as the

qualifications formally awarded and their equivalents. Employers shall proactively communicate academic curricula and training rules on how evolving workplace requirements should be incorporated. The PQF Registry of Qualifications should be used by employers to better manage their workforce needs and understand how to design jobs. To guarantee that industrial transformation is supported by effective human capital and skills development strategies, PQF and Philippines Skills Framework (PSF) requirements and standards must be incorporated. Skills-occupations mapping is a practice that employers, business associations, and educational institutions may use to address skill gaps and promote job mobility.

Intensify participation in youth employability programs. Educational institutions, particularly for students in senior high school, must proactively seek out effective interventions or programs that support employment. The success of area-based skills initiatives can be increased by creating collaborations between and among TESDA, high schools, regional universities, and regional colleges. Additionally, the private sector can assist with curriculum design, institutionalize feedback processes, and offer guidance on hiring practices.

Programs for out of school youth (OSY) should also be continued and expanded to target those that are most economically proficient. The region would benefit from institutions such as the OSY Technical Training Center, in partnership with CHED, to cater to youth who are interested in short-period courses. TESDA's Equal Employment Opportunities for Out-of-School Youth program is also beneficial especially for IT-inclined youth. Lastly, foreign funding and programs should be exploited; such programs as USAID's Opportunity 2.0 help build a generation of workers and entrepreneurs.

Access to employment opportunities expanded

Develop programs, interventions, and policies that address all forms of labor market discrimination in work and in education and training. The government shall conduct impact assessments of policies, laws, and institutions designed to promote equality. Besides employment facilitation, policies shall be aimed at labor market issues such as gender, context-specific barriers, such as transportation

constraints, security, technological capacities, and discrimination. The government shall explore the development of a framework that can progressively eliminate discrimination between full-time and part-time workers. Pathways shall also be considered for workers transitioning from part-time to full-time status or vice versa. Conduct of skills-occupations mapping to determine and identify policies and interventions to address skills-mismatch shall also be considered.

Conduct of tracer studies to follow youth employment, identify policy gaps, and measure actual school-to-work transition of youth. The tracer study shall be an effective tool in assessing the whereabouts and performance of graduates of the state universities and colleges and other private institutions in the region. The data harvested in the studies shall help the CHED in identifying the priority courses that should be offered by the HEIs in MIMAROPA.

Maximize the utilization of PESO. With technical assistance from the Department of Labor and Employment (DOLE), the Public Employment Service Offices (PESOs) can potentially transition to offering a full range of employment, career counseling, and training services for specific in-demand skills through a partnership with TESDA and educational institutions. Moreover, the government shall integrate all employment program monitoring systems, career development support, and labor market information systems in the PhilJobNet to provide a complete employment journey for target clients. Returning Overseas Filipinos shall also have access to these services, facilitating their integration back to the domestic economy. The LGUs shall be encouraged to increase budget allocation to facilitate institutionalization of PESOs.

Continued business engagement remains critical for improving the performance of PESO. To ensure the maintenance, expansion, and promotion of PESO services, increased allocation of local budgets may be necessary. Moreover, better utilization of PESOs would result in improved facilitation efficiency and visibility. To respond more effectively, LGUs can consider investing in digital platforms that automatically update the state of local labor markets and highlight job trends. Similar platforms can also be made more responsive to the needs of PESO constituents by facilitating registration, access, and application. Additionally, PESOs that are

geographically adjacent or whose labor migration is established may conduct combined job fairs and other programs that feature jobs and labor opportunities within their combined areas of jurisdictions or along these migration paths.

Provide updated labor market information to PhiljobNet. Unregistered employers can consider enlisting as part of PhiljobNet to avail of the services, such that labor search costs can be reduced and staffing needs can be addressed. Moreover, the participation of employers can contribute to local development by enriching labor market intelligence. Linking to PhiljobNet improves the data quality and ensures proper characterization of local labor market conditions. Industry associations can also explore ways to reliably and securely link systems that continuously provide updates.

Maintaining a continuing nationwide skills registry through its Skills Registry System (SRS) database is crucial. This shall give potential employers the assurance that the skills registered are current and only those who are actively looking for work are displayed. This is in addition to registering available skills in every locality across the region. This shall facilitate employers' hiring and selection processes. For Regional SRS, the total proposed funding requirement for 2023-2028 amount to PhP2.5 million.

Share and disseminate information on emerging, critical, and in-demand skills. As technology transforms the workplace, the government's social partners shall update key stakeholders. For example, investing in private labor market assessment tools and information systems can be helpful for firms to anticipate and relay emerging skills requirements, inform educational, training, and skills policies, and enhance market interventions, including in terms of timeliness. Moreover, employers, worker associations, and industry groups can consider participating proactively in sectoral bodies to facilitate the exchange of ideas and enhance communication flow.

For 2023-2028, the total investment requirements for the Job Search Assistance Program amount to PhP4.07 million. The JSA program aims to provide timely relevant and accurate signals on the current labor market such as in-demand jobs and skills shortages by developing client-specific LMI and other education and communication materials for job seekers in MIMAROPA.

Shared labor market governance achieved

Integrate lifelong learning principles and processes in human resource development programs. Employers should recognize prior learning outcomes obtained in micro-formal or formal training and provide relevant training to employees based on those. Integrating lifelong learning processes ensure that both employers and employees benefit from learning dividends in the form of better corporate performance, productive employee engagement, and enhanced well-being.

Actively participate in government-industry associations promoting and implementing employment and skills development policies and strategies. Enterprises play a vital role in defining the skills requirements and standards of occupational profiles. Increase in employability and readiness of students shall be achieved if employers can facilitate training deliveries from internships, on-the-job trainings, industry immersions and apprenticeship programs to produce accurate and timely skills anticipation results. Hence, collaboration between TVIs and companies shall be promoted to further strengthen the TVET process.

The TVIs can create marketing plans to advertise jobs that can only be obtained through TVET programs. Participants in TVI networks, for instance, can be required to plan tournaments or skill fairs to display their technical prowess and other qualities. Additionally, TVIs can develop digital platforms that make TVET programs more well-known, with an emphasis on preserving the economy's capacity to accommodate growing capabilities. More importantly, TVET programs must be promoted as essential initiatives for advancing the interests and development of the nation's economy.

As technology transforms the workplace, the government's social partners shall update key stakeholders. For example, investing in private labor market assessment tools and information systems can be helpful for firms to anticipate and relay emerging skills requirements, inform educational, training, and skills policies, and enhance market interventions, including in terms of timeliness. Moreover, employers, worker associations, and industry groups can consider participating proactively in sectoral bodies to facilitate the exchange of ideas and enhance communication flow.

Social partners can participate in capacity-building programs sponsored by the government. Such programs help develop skills needed for sustaining engagement in social dialogues and solving problems. Social partners shall also be

independently able to undertake comprehensive sector assessment and understand the implications of megatrends such as automation, climate change, and the ongoing pandemic on industry or sector outcomes.

Table 6.2 List of Major Programs and Projects

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (P '000)						TOTAL 2023-2028 INVESTMENT TARGET (P '000)
		2023	2024	2025	2026	2027	2028	
Technical Education and Skills Development Services Program	Regionwide	645,462	647,401	392,468	399,962	385,920	388,685	2,859,900.00
Special Program for Employment of Students (SPES)	Regionwide	14,438	15,882	17,470	19,217	21,139	23,256	111,397.98
Job Search Assistance Program	Regionwide	528	580.8	638.9	702.8	773.05	850.35	4,074.84
Skills Registry System (SRS)	Regionwide		500	500	500	500	500	2,500.00

Sources: Regional Development Investment Program 2023-2028 of TESDA MIIMAROPA and DOLE MIMAROPA

Legislative Agenda

Table 6.3 Legislative Agenda to Increase Income-earning Ability

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Jobs Creation Strategy Bill	This piece of legislation would create an Inter-Agency Council for Jobs and Investments co-headed by the Department of Trade and Industry, DOLE, and TESDA, include representatives from employers' organizations and labor groups, and establish working groups that shall focus on developing employment recovery and job creation in specific industries and emerging sectors, such as, but not limited to construction, tourism, agriculture, information technology and business process management, and manufacturing.	DOLE
Lifelong Learning Development Bill	This legislative measure would develop a Lifelong Learning Development Framework through the Philippine Qualifications Framework-National Coordinating Council (PQF-NCC). The PQF-NCC shall determine and set standards for developing action components and desirable success measures for promoting lifelong learning in cities, municipalities, and educational institutions.	DOLE
Enterprise Productivity Act (Amendments to the Productivity Incentives Act)	This bill would fortify the intentions of the "Productivity Incentives Act of 1990" by promoting inclusive and sustainable work productivity programs. It aims to reinforce labor productivity through (a) establishing a Productivity Incentives Committee; (b) adopting productivity incentive programs; (c) granting productivity incentives to employees; and (d) providing a tax incentive to business establishments for granting incentives to employees.	DOLE

PART III

Transform Production Sectors to Generate More Quality Jobs and Competitive Products

07

Modernize Agriculture and Agribusiness



MODERNIZE AGRICULTURE AND AGRIBUSINESS

The agriculture, forestry, and fishery (AFF) sector of MIMAROPA employed 415,418 persons, or 33.53 percent of the region's total employed persons, in 2019. The contribution of the sector to the regional economy has increased from 2017 to 2021. Despite this, the sector still needs to address bottlenecks in order to improve its share to the regional economy.

To maximize the potential of the region's agriculture sector to spur economic growth, the plan will focus on modernizing agriculture and agribusiness by improving the productivity of the agriculture and fishery sector as well as expanding AFF-based enterprises and access to markets.

Assessment and Challenges

AFF Contribution to GRDP and Employment. The growth of the AFF recorded varied performances in the last five years. It dipped significantly in 2016 as it bore the impact of El Niño and recorded a -5.1 percent growth rate. The sector bounced back in 2017-2019 but plunged again in 2020, with a -2.0 percent growth rate. The sector bounced back in 2021, with a 5.2 percent growth rate. At the average growth rate of 2.1 percent and 19 percent contribution to the regional economy for the period 2017 to 2021, the AFF sector remained the lowest among the three sectors.

On the other hand, the agricultural labor productivity in the region has been increasing, but at a slower pace. It increased by 10.43 percent from Php 153,234.00 in 2018 to Php 169,211.56 in 2019. Among the 17 regions, MIMAROPA ranked 8th in terms of agricultural labor productivity.

Poverty incidence among primary producers. The proportion of farmers and fisherfolk belonging to families with income below the poverty threshold significantly improved from 40.8 percent in 2006 to 20.7 percent in 2018 and 37.9 percent in 2006 to 14.7 percent in 2018, respectively. Basically, around 61,500 farmers and 13,800 fisherfolks are still poor in 2018¹. The decrease in poverty incidence among primary producers can be attributed to efforts and interventions provided by the government in

implementation of various agriculture and fishery programs and projects to i) strengthen value chain and local production, ii) reduce production cost, iii) ensure sufficient buffer stocks of agricultural and fishery, iv) strengthen extension services provided, v) enhance food logistics and mobilization, and vi) ensure availability of safe and nutritious food. This includes banner agri-fishery programs on rice, corn and cassava, high value crops, livestock and poultry, coconut industry development, irrigation development, credit/insurance, agri-fishery inputs (e.g., fuel and fertilizers), among others.

Crops. The crops subsector has been the primary driver of AFF. On the average, the crops contributed 57.49 percent to the value of agricultural outputs of the region from 2017 to 2021. The top five commodities with the biggest share in the regional crop production include palay, coconut, cashew, corn, and banana. The region also recorded increases in the production of cashew, onion, arrowroot, cacao, durian, pineapple, eggplant, rubber, coconut, watermelon, and tomato. On the other hand, there were recorded decreases in the production of garlic, calamansi, coffee, banana, cassava, and ginger. During the same period, the area harvested for crops in the region has been dominated by three major crops such as rice, corn, and coconut.

The region was the biggest producer of cashew, coconut leaves, calamansi, calamansi, and arrowroot in the country. The region was also among the top five producers of the following commodities: onion, garlic, avocado, black pepper, greater yam/ubi, talinum, red beans, mustard, calamansi, kinchay,

¹This is based on the number of employed individuals whose primary occupation is farming, plant growing, animal production, and fishing.

grapes, sineguelas, breadfruit, atis, dracaena, mayana, nipa leaves, yellow bell, lagundi, dahlia, ginseng, African palm leaves, pineapple fiber, sesame, guinea grass, sampaguita, ilang-ilang, carnation, banana leaves, tiger grass, and kaong (kernel).

In MIMAROPA, the cropping intensity of NIS increased from 153.88 percent in 2011 to 197.45 percent in 2021. The cropping intensity of CIS also grew from 103.79 percent in 2011 to 182.28 percent in 2021. Moreover, a total of 452 agri-fishery farm machineries were distributed in MIMAROPA provinces, which included 4WD tractors (35Hp, 45Hp, and 90Hp), hand tractors, cultivators, rice transplanters, and corn planters. Additional support for the provision of capacity building relative to agricultural technology and innovation (e.g., drone technology, precision agriculture, vertical farming) should be provided to farmers and fisherfolk.

Limited local supply of inorganic fertilizers has been one of the primary reasons for the rising prices of agricultural commodities in the region. This can be attributed to the low capacity of the country to produce inorganic fertilizers, which made the Philippines, a dependent importer. This pressed the Department of Agriculture to implement the concept of Balanced Fertilization Strategy (BFS) Program. Said program will mitigate the adverse effects of high prices of fertilizers and degrading concerns of excessive usage of fertilizers, while ensuring food security.

The number of agricultural products certified as organic increased by 34.78 percent from 23 products in 2018 to 31 products in 2021. The number of entities with good agricultural practice (GAP) certification in the region continued to increase with 33 entities including individual farmers and demonstration farms that were GAP certified as of 2021. The region may also explore on the production of HALAL-certified products to cater the needs of Muslims living in Southern Palawan.

Livestock and Poultry. From 2017 to 2021, livestock and poultry products recorded an increase in production at 5.44 percent and 26.17 percent, respectively. About 69 percent of the total livestock and poultry outputs were from backyard production of swine. This was followed by cattle and chicken production with a share of 9.24 percent and 9.04 percent, respectively.

The performance of the livestock and poultry subsector can be attributed to the increasing demand for animal products from households and food and accommodation establishments. The presence of African swine fever and bird flu in nearby areas also provided opportunities for the region to produce and sell products to the adjacent regions.

Fisheries. From 2017 to 2021, the volume and value of fisheries production decreased by 22.70 percent and 7.66 percent, respectively. Aside from illegal, unreported, and unregulated fishing, the decline in region's fishery production was mainly due to the decrease in seaweed production, which was damaged by typhoons that passed through the region. The seaweed production accounted for almost 60 percent of the region's fishery production. The value of seaweed also decreased by 31.71 percent from 2017 to 2021.

As of 2022, a total of 37,005 municipal fishing vessels, including 28,047 motorized boats and 8,958 non-motorized boats, were registered in MIMAROPA. Moreover, the registered commercial fishing vessels in the region reached 265 (200 small scale and 65 medium scale).

Agribusiness. AFF-based MSMEs in the region are currently engaged in food processing, crafting of souvenirs, production of herbal products for hair and skin, and fabric weaving activities. As of 2021, a total of 427 registered cooperatives were identified as agriculture and agrarian cooperatives. Moreover, a total of 67 farmers' cooperatives and associations are accredited by DA MIMAROPA. On the other hand, about 204 establishments were engaged in agriculture, forestry, and fishing industries in 2020. In 2016, value added generated by these establishments increased by 1.85 percent compared to the Php 0.51 billion in 2015.

As of 2021, only 42 shared service facilities (SSFs), including the Business Resource Centers (BRCs), were established and maintained in the region. AFF-based products were promoted and sold to different agricultural trade and marketing schemes such as Diskwento Caravan and Kadiwa ni Ani at Kita program. Seven AFF-based associations from MIMAROPA served as operators/suppliers under Kadiwa from 2020 to 2021. About 63,166 beneficiaries benefitted from 123 Diskwento Caravan conducted in the region from 2017 to 2021.

In terms of share of agricultural export, MIMAROPA contributed a minimal share of 0.18 percent (or \$12.16 million) to the national agricultural export in 2021. Grouper, yellowfins tuna, roundscad, sea cucumber, and other fishery products are the top agricultural commodities being exported by MIMAROPA. For the past 12 years from 2010, there were no approved foreign investments for AFF, except in 2015, with Php 49.89 million.

From 2017 to 2021, the total allocation of crop insurance in MIMAROPA increased by 99.38 percent, from Php 199.01 million in 2017 to Php 396.78 million in 2021, and benefitted 333,109 beneficiaries. The crop insurance covers rice, corn, high value crops, livestock, and non-crop agriculture. While, the total allocation of credit program significantly increased by 272.64 percent, from Php 84.51 million in 2017 to Php 272.64 in 2021, and benefitted 23,635 SFF borrowers and borrower-organizations. These credit programs include SURE COVID-19 Program, Agri-Negosyo Program (ANYO), Kapital Access for Young Agripreneurs Program (KAYA), SURE Programs, and SURE Aid Palay Program.

Aside from the sector's vulnerability to climate and natural hazards, the pandemic also exposed the agriculture and fisheries sector's weak agriculture supply chain system. As we move up to modernize the region's agriculture and agribusiness, the region needs to address several challenges to achieve the desired outcome for the sector. This includes: (i) inadequate FMRs; (ii) slow paced irrigation development; (iii) mismatch between farm machineries/technology and actual mechanization; iv) limited crop diversification portfolio; v) low ratio of farmers capacitated with new farm technologies; vi) unsustainable production practices; (vii) limited post-harvest facilities and high post-harvest losses; (viii) low private sector investments and declining interest among youth due to perceived risks and vulnerability of the sector; (ix) weak AFF sector linkage to industry sector; (x) limited access to credit, financing, and insurance system due to multidimensional challenges emanating from supply and demand side; (xi) limited investments for research and development; and (xii) high cost of farm inputs.

Targets

Table 7.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Chapter Outcome: Agriculture and Agribusiness Modernized										
Poverty incidence among primary producers (farmers and fisherfolk) reduced (%)										
Farmers	2018	20.70%			15.53%			10.35%	PSA, FIES	DA, DAR, LGUs
Fisherfolk	2018	14.70%			11.03%			7.35%	PSA, FIES	DA, LGUs
Percentage Growth of GVA in AFF increased (at constant prices)	2021	5.20%	5%-6%	5%-6%	5%-6%	5%-6%	5%-6%	5%-6%	PSA, Regional Accounts	DA, LGUs
Level of Mechanization improved										
Terrestrial (hp/ha)a	2022	0.084	0.10-0.50	0.50-1.00	1.00-1.50	1.50-2.00	2.00-2.50	2.50-3.00	PhilMech	DA, PhilMech
Blue Economy (Ratio of number of motorized boats to the total number of registered fisherfolks in Juan Magsasaka Registration System)	2022	0.162	0.164	0.166	0.167	0.169	0.171	0.172	Annual Report, Administrative Data, BFAR	BFAR

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Sub-chapter Outcome 1: Efficiency of Agriculture and Fishery Production Enhanced										
Agricultural Labor Productivity Growth Rate Increased (at constant prices)	2019-2020	-4.68% ^a	4.80%	4.92%	5.07%	5.22%	5.35%	5.48%	PSA, Regional Accounts and LFS	DA, DAR, LGUs
Yield (MT/ha)									PSA, Agriculture and Fisheries Statistics	DA, LGUs
Palay	2021	3.95	4.00	4.15	4.25	4.36	4.47	4.58		
Corn	2021	4.08	4.18	4.29	4.39	4.5	4.62	4.73		
Coconut	2021	3.72	3.81	3.9	4	4.1	4.21	4.31		
Cashew	2021	9.2	0.16	0.17	0.18	0.19	0.2	0.21		
Banana	2021	2.97	0.48	0.49	0.51	0.52	0.53	0.55		
Calamansi	2021	5.92	9.43	9.67	9.91	10.15	10.41	10.66		
Garlic	2021	2.44	3.04	3.12	3.2	3.28	3.36	3.5		
Onion	2021	11.01	6.07	6.22	6.37	6.53	6.7	6.86		
Percentage of Developed/Irrigated Area increased (%)	2021	77.87%	79.32%	80.00%	80.14%	81.50%	83.14%	85.54%	NIA Annual Accomplishment Report; Administrative Data	NIA
Cropping Intensity Increased (%)	2021	187.87%	190%	190%	191%	191%	191%	192%		
NIS	2021	197.45%	200%	201%	201%	202%	203%	203%		
CIS	2021	182.82%	186%	186%	187%	187%	187%	187%		
Sub-chapter Outcome 2: Access to markets and AFF-based enterprises expanded										
Growth in Value of A&F Exports (%)	2020-2021	-0.26%	50%	50%	50%	50%	50%	50%	PSA, Trade Statistics	DA, DTI
Growth in Total Approved Investments for AFF (%)	2020-2021	0%	1%-2%	1%-2%	1%-2%	1%-2%	1%-2%	1%-2%	PSA, Approved Investments	Investment Promotion Agencies
Sub-chapter Outcome 3: Resilience of AFF value chains improved										
Ratio of crop insurance coverage (total number of beneficiaries) to the total number of farmers and fisherfolks increased	2022	0.64	0.65	0.65	0.66	0.66	0.67	0.67	PCIC Annual Accomplishment Report, Administrative data	PCIC
Ratio of financing programs (number of beneficiaries (SFF and organization)) to the total number of farmers and fisherfolk increasedb	2021	0.016	0.008	0.008	0.008	0.008	0.008	0.008	DA-ACPC's Small Farmers and Fisherfolk Indebtedness Survey	ACPC

Source: DA MIMAROPA, NIA MIMAROPA, PSA, PhilMech, ACPC, PCIC

Notes:

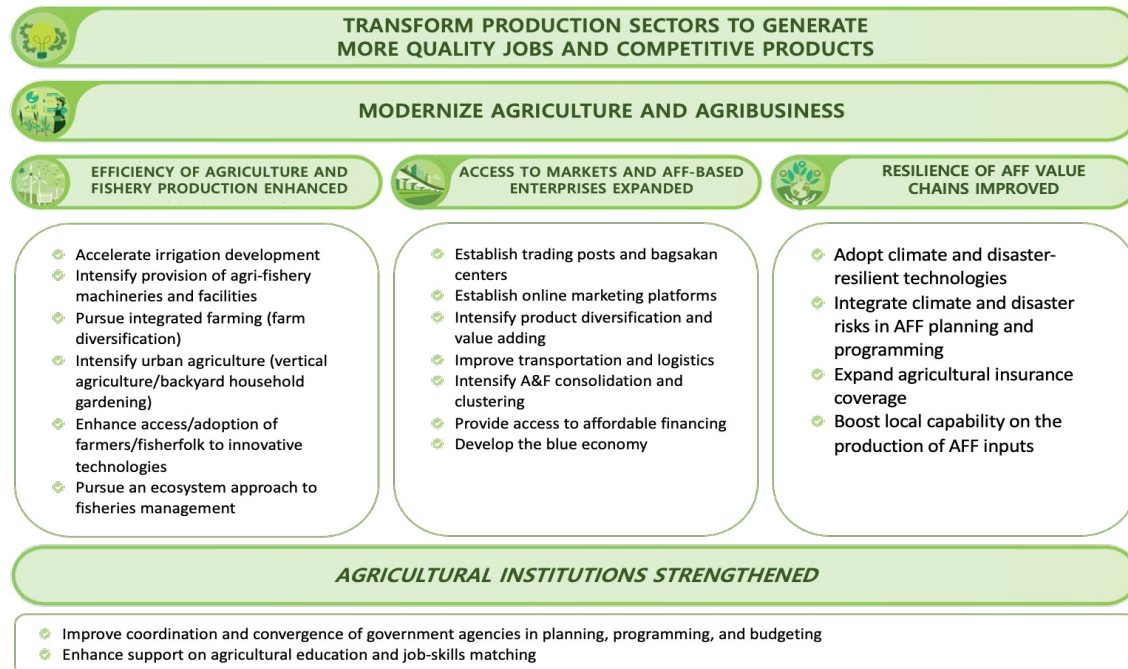
a – Estimated level of mechanization is based on inventory of farm machineries (4WD tractor and hand tractor) provided by DA MIMAROPA and Firmed-Up Service Area provided by NIA MIMAROPA. Agricultural Machinery Testing and Evaluation Center (AMTEC) peak transmission efficiency is also considered in the estimation.

b – The annual targets on the coverage of financing programs are based on the previous performance of credit programs in the region and number of partner lending conduits (PLCs). Since credit is demand-driven, the annual targets are only provisional/indicative and may change during the implementation of the credit programs based on the actual application and approval of loans by our PLCs.

Strategies

The agriculture and fisheries sector is one of the primary growth drivers of the region's economy. It also contributes to the administration's goal of food security, as the region is one of the top producers of cashew, calamansi, onion, garlic, and fishery products. Given the abovementioned challenges, there is a need to modernize agri-fishery and agribusiness by adopting new farming technologies, accelerating agri-fishery infrastructures and physical connectivity, improving market access, and expanding AFF-based enterprises. The desired outcome is to create the productive sectors of the economy to generate more quality and competitive products and achieve economic transformation for a prosperous, inclusive, and resilient society.

Figure 7.1. Strategy Framework to Modernize Agriculture and Agribusiness



In pursuit of the goals and targets, the region will be guided by the following strategies:

Agriculture and Fishery Sector Productivity Improved

Accelerate irrigation development. As of 2021, the total farmed-up service area (FUSA) in MIMAROPA recorded 68,778.17 ha, or 0.07 percent of the total agricultural land of 983,821.83 ha. As such, a total of 915,043.66 ha of agricultural land are still undeveloped, which can be irrigated through the utilization of new irrigation system. Based on the National Irrigation Master Plan, investments for irrigation system will focus on the following: i) construction of disaster and climate resilient, small-scale irrigation system; ii) retrofitting, restoration,

and rehabilitation of existing irrigation; and iii) modernization and adoption of new irrigation system (e.g., drip irrigation system, solar-powered irrigation, and sprinklers, among others) in areas where it is applicable. Construction and rehabilitation of irrigation facilities will be prioritized in the provinces of Occidental Mindoro, Oriental Mindoro, and Palawan, which are included in the list of priority sites identified in NIMP 2020-2030.

In particular, the construction of the following irrigation facilities will be accelerated to improve crops productivity: i) Ibato-Iraan Small Reservoir Irrigation Project (SRIP) in Palawan, ii) Bagtingon SRIP in Marinduque, iii) Lipitan SRIP in Occidental Mindoro, iv) Ransang River Irrigation Project in Palawan, and v) Malabangan River Irrigation Project.

Intensify the provision of agri-fishery machineries and facilities. Farmers and fisherfolks in the region will be able to access funds that provide machineries and facilities to achieve farm mechanization.

This includes the Rice Competitive Enhancement Fund (RCEF), national flagship program for agriculture (rice, corn, high value crops, and livestock and poultry), and Coconut Farmers and Industry Development Trust Fund. The government will be able to identify appropriate technologies, farm machineries, and equipment (production and post-harvest) to existing small landholdings, farm condition, and labor force in order to achieve farm mechanization. Likewise, in order for the small farmers and fisherfolk (SFF) to access those agri-fishery machineries and facilities, it is vital for the DA, CDA, DAR, and other concerned agencies to intensify the efforts on organizing and clustering SFF into registered/accredited cooperatives and associations.

In terms of livestock and poultry, the region will capitalize on its status as one of the regions considered as ASF and bird-flu-free zone and continue the implementation of measures and protocol on managing ASF and bird flu. However, there is a need to review existing quarantine measures and protocols relative to livestock breeding stocks (e.g., importation of good female swine breeds) to sustain the number of highly productive and suitable animals in the region, particularly in the provinces of Oriental Mindoro and Palawan. These provinces are the top two hog producing provinces in MIMAROPA. Moreover, to sustain the successful prevention of spread of such diseases, the following will be pursued: i) constant coordination and collaboration with LGUs and other concerned national agencies; ii) provision of timely updates on the quarantine measures and protocols; and iii) establishment of a local monitoring system for local movement of animals as part of early warning system (pursuant to guidelines for the Bantay ASF sa Barangay Program).

On the other hand, there is a need to identify areas suitable for the expansion of poultry production in anticipation of the increasing demand for poultry, including modernized poultry houses (tunnel-vent system, air-conditioned pen houses, among others), as the region expects an increase in the scale of production.

Aligned with the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP)

2021-2030, the identification of strategic location for the establishment of agriprocessing and post-harvest facilities will be done through the utilization of Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure (GEOAGRI). This will reduce logistics costs and accommodate agricultural services needed by farmers and fisherfolks including its influence area. Among the identified processing facilities that will be established include cold/dry storages for onion, garlic, and tuna in Occidental Mindoro and fish port complex, strategic fish landing sites, fisheries laboratories, hatcheries and mariculture park, Oriental Mindoro Provincial Agriculture Center (PAC), and warehouses. The BFAR will prioritize the procurement of medium-to large-scale commercial fishing vessels that utilize active gears and have weight ranging 20.1 GT to more than 150 GT. These fishing vessels will be distributed among the accredited fisherfolk cooperatives and associations in the region to maximize their fishing activities and increase their catch particularly in the West Philippine Sea.

To eliminate disruptions in the supply chain of agricultural inputs, the national government agencies, LGUs, together with private sector will also explore investments in the development of domestic production of seeds/propagating materials and packaging materials for manufacturing industries in the region. Identification of strategic location of manufacturing plants of agricultural inputs is vital in the development and sustenance of the project.

Pursue integrated farming (farm diversification). Intercropping and integrated farming systems will be widely adopted in the region to maximize land productivity, improve resiliency and sustainability, and provide additional income to farmers. Both farming schemes will address the constraints on diversity, pest, and crop diseases. Intercropping and integrated farming systems involve the identification of suitable crops or combination of crops/livestock/fish that can thrive within the same area.

Based on the updated SAFDZ, the agricultural land identified under agro-forestry is at 324,606.79 ha, which can be used as expansion area for prime agricultural lands in the region. These lands provide an additional half of the total existing SAFDZ (659,215.04 ha) comprising: a) Marinduque with 28,036.92 ha; b) Occidental Mindoro with 71,012.78 ha; c) Oriental Mindoro with 35,468.51 ha; d) Palawan with 158,255.43 ha; and e) Romblon with 31,833.15 ha. Those lands can be maximized by

facilitating sloping agricultural land technology (SALT 1). SALT is a package technology of soil conservation and food production, integrating differing soil conservation measures in just one setting. SALT has different forms, including a) Simple Agro-Livestock Technology (SALT 2), b) Sustainable Agroforestry Land Technology (SALT 3), and c) Small Agrofruit Livelihood Technology (SALT 4). Likewise, integrated farming systems can utilize low technology farm practices such as crops-fishery/livestock farming system. The regionwide sub-projects under Kaanib Enterprise Development Project (KEDP) of Philippine Coconut Authority (PCA) such as Coconut Intercropping Project, Animal Integration Project, and Coconut Processing Project should be continued to provide integrated resource service convergence approach. This will increase farm productivity, resulting in additional income to the small coconut farming communities.

On the other hand, the LGUs will identify vast agricultural area identified as pasture land or grazing land (e.g., Busuanga Pasture Reserve) to support the increasing grazing livestock in the region.

Intensify urban agriculture. This entails the establishment of modern artisan and intensification of promotion of urban and vertical agriculture, backyard/household gardening, and farming of edibles, backyard animal raising, and community gardening through the implementation of various national flagship agricultural programs (e.g., high value crops development program) (refer to Chapter 5.1). Similarly, urban households and communities identified under regional and sub-regional centers will be encouraged to produce fresh and healthy food from their backyards and spaces, since more portions of these areas are allotted to urban services, and industrial and commercial purposes. These include the following cities/municipalities: a) Boac, Gasan, Santa Cruz in Marinduque; b) San Jose, Mamburao, Sablayan in Occidental Mindoro; c) Calapan City, Bansud, Pinamalayan, Puerto Galera, Roxas in Oriental Mindoro; d) Puerto Princesa City, Bataraza, Corin, Culion, El Nido in Palawan; and e) Romblon, Cajidiocan, Looc, Odiongan in Romblon.

Vacant urban spaces could be utilized for gardening and farming. Households will be encouraged to establish backyard edible gardens, while community farming will be promoted especially in schools with pupils returning to the face-to-face mode of teaching. This initiative will serve as a source of nutritious food and additional income. Production inputs such

as seedlings, compost, stocks, and fingerlings will be provided. This will be complemented by capacity building for proper crop/fishery/livestock management, pest and disease control, and organic farming.

Enhance access of farmers/fisherfolk to innovative technologies. Modernization requires shifting the base of human productivity from natural resources to knowledge (technology). The LGUs will encourage farmers and fisherfolk to adopt modern production technologies such as a) use of high-yielding, short-maturing, flood/drought/salt-tolerant, pest-resistant, and shorter (for strong wind resistant) varieties of crops; b) use of quality semen of animals and eggs for poultry and quality fish fry and fingerlings; c) facilitation of cloning/propagation/breeding; d) utilization of aquaponics and hydroponics farming; and e) advanced irrigation systems (drip and sprinkler). Moreover, concerned government agencies, GOCCs, SUCs, and LGUs can utilize funds to support the development and implementation of innovative technologies through the Philippine Innovation Act or the Republic Act No. 11293.

Further, efforts on extension services will be intensified by strengthening the Province Led Agri-Fishery Extension System (PAFES). PAFES could provide capacity building and skills training to SFFs and extension workers relative to innovative farming technologies including drone technology, precision technology, safety and standards on processing, packaging, and transporting of food and products. AFF extension workers capacities will also be strengthened. This can be done through a) continuous conduct of capacity buildings on new technologies; b) development or updating of new modalities, methodologies, and approaches of learning management system to conform to the changing needs of extension services; and c) provision of support to the accreditation of extension workers and facilities. Concerned national agencies should tap LGUs and SUCs in the delivery of extension services and to enhance linkages with research and development (R&D).

Pursue an ecosystem approach to fisheries management. Aligned with the ridge-to-reef approach, sustainable integrated area development, and the concept of blue economy, the Fisheries Administrative Order (FAO) No. 263 provides for the establishment of the 12 Fisheries Management Areas (FMA) to sustainably manage fisheries resources consistent with the principles of ecosystem approach

to fisheries management (EAFM). In particular, all provinces of MIMAROPA are covered by three FMAs (5, 6, and 12), which were established based on considerations of stocks boundary/range/distribution, structure of fisheries, and administrative divisions.

The implementation of the Fisheries and Coastal Resiliency (FishCoRe) Project is expected to improve the management of fishery resources and enhance the value of fisheries production in selected Fishery Management Areas (FMAs) covering 11 regions and 24 provinces, including the municipalities of Lubang and Looc in Occidental Mindoro. The project has three components: a) Improved Fisheries and Coastal Resilient Resource Planning and Management (FishCRRM), b) Modern and Resilient Livelihood Investments (MARLIN), and c) Support to Project Implementation and Management (SuPrIM). It will be replicated in other areas of the region.

LGUs will be encouraged to formulate integrated coastal resources use and management plan (ICRUMP). The plan can be anchored on the concept of blue growth, a strategy which emphasizes conservation and sustainable management of productive and healthy ecosystems. The ICRUMP will translate national policies into local level implementation. It will include the following components and activities but not limited to: a) identification of coastal, marine protected areas (MPAs), and their network, which serve as the major components of ICRUMP and ecosystem approach to fisheries management; b) enforcement to complete delineation, delimitation, and zoning of municipal waters, particularly in LGUs with overlapping boundaries; and c) establishment of database system for fisheries for the computation of maximum sustainable yield and maximum economic yield, which are critical tools to propose policies toward utilization of fisheries resources.

Intensive information, education, and communication (IEC) activities will be conducted to increase public awareness, appreciation, and compliance to holistic approach to fisheries management, resource-based conservation measures and policies, and fishery laws.

Access to Markets and AFF-based Enterprises Expanded

Establish trading posts and bagsakan centers.

Efforts will be intensified in the identification of strategic location of new trading posts and bagsakan centers including local food terminals, warehouses, and public markets. Local needs and conditions of adjacent communities will be considered in the process to achieve the economies of scale. Since more than half of the established trading posts and bagsakan centers in the region are non-operational, funding support will be focused in the rehabilitation and revival of these non-operational trading posts and bagsakan centers, including a) four in Marinduque and Occidental Mindoro, b) eight in Oriental Mindoro, c) seven in Palawan, and d) three in Romblon. Likewise, the DA, in collaboration with DTI and LGUs, will utilize public markets of the LGUs as bagsakan center or trading post. All products of the AFF-based MSMEs traded in the bagsakan center will be posted at the same time on online market platforms for wider access of the consumers.

Establish online marketing platforms. The DA, DTI, DILG, and LGUs will continue supporting programs that will facilitate trading between farmers/fisherfolks and consumers/processors through e-commerce with the use of mobile and web-based platforms/channels for transactions, delivery services, digital payment such as eKadiwa, GCash, Facebook, among others, to serve greater number of clients. DICT and SUCs will be tapped to provide assistance in establishing web-page that directly links producers and agripreneurs to consumers and provide venue to buy wide range of fresh and affordable farm and fishery products.

These will also be supported by various online marketing development support such as a) massive awareness activities to introduce new and existing AFF products and b) provision of capacity building to farmers and fisherfolk cooperative and associations to effectively utilize digital payment systems. Additionally, LGUs in collaboration among national agencies and SUCs, will establish registration and

monitoring tools to keep track and regulate local market transactions.

Further, given the archipelagic in nature of the region and limited connection in the transmission grids, goods and information will be expanded through advance and expanded access to digital infrastructure. This can be translated to investing on reliable and affordable electricity to support the telecommunications/internet services and enhancing ICT infrastructure through the effective implementation of the common tower policy (refer to Chapter 13. Expand and Upgrade Infrastructure). A common tower allows multiple telecommunication companies (TelCos) and

fabrication of farm and processing machinery and equipment

- Promote the establishment of business partnerships between the private sector and primary producers (e.g., agribusiness venture agreements, private sector-led contract growing)
- Strengthen entrepreneurial capacity of smallholder primary producers
- Locate processing facilities close to primary production areas to reduce logistics cost
- Promote the utilization of processing wastes for production of energy, fertilizers and high value products

The region will also consider adopting the five “anchor commodities” (rice-based, corn and livestock-based,

Table 7.2 MIMAROPA Agribusiness Opportunities by Province

PROVINCE	AGRIBUSINESS OPPORTUNITIES
Marinduque	Coco coir production, butterfly industry, abaca processing, and coconut sugar production
Occidental Mindoro	Tuna production, pickled fruits and vegetables, aquamarine processing, salt industry, and seaweeds
Oriental Mindoro	Banana chips, rice-based delicacies, calamansi purees and concentrates, virgin coconut oil, coffee, cacao, bamboo-based products, lamayo, dried biya, and seaweeds, abaca, buri, and cogon handicrafts
Palawan	Cacao, seaweeds, pineapple, banana, and palm oil
Romblon	Soft broom production (walis tambo), fish and other marine products processing, meat processing, peanut butter production, and coconut oil processing

Source: National Agriculture and Fisheries Modernization and Industrialization Plan 2021-2030

internet service providers (ISPs) to co-locate at a single site and share operation expenses.

Intensify product diversification and value adding.

This involves the conduct of market and technology-matching activities and provision of capacity building and facilities to SFFs and MSMEs in terms of product processing, market conditions and trends, product handling and packaging, and compliance with food safety and quality standards. The following can be done in order to create new market and products and increase value-adding activities in the region:

- Pilot government-supported processing facilities to be operated by selected primary producer cooperatives to serve smallholder primary producers
- Promote private sector investment in build-operate-transfer schemes for toll-based processing facilities
- Manufacture fresh/raw agricultural commodities registered to have high production into other products (e.g., pineapple into jam, seaweeds into dried seaweed, and calamansi into puree)
- Develop industries for utilization of local biological materials for packaging, and manufacturing/

coconut-based, fisheries-based, and geographically specialized commodities) identified in the NAFMIP 2021-2030 in its product and market development activities. Below is the list of local commodities that will support upscaling through transformative investments, value-adding, and interventions.

Initiatives on knowledge-sharing activities relative to the information on prices, buyers, suppliers/sellers, and providers of ancillary services will be intensified through the use of different modalities (online and physical platform). Those information will serve as guide to export players for their market decisions and networking.

The government will encourage private sector investments in agriculture and fisheries, particularly in agricultural hubs and technology parks that would promote innovation and technology transfer.

Improve transportation and logistics. As of 2021, a total of 320.30 km was constructed in MIMAROPA, recording a 0.2865 sq km FMR density ratio. This figure is far behind from the ideal FMR density

ratio of at least 2 sq km. The implementation of FMR program will be accelerated in line with the implementation of Farm-to-Market Road Network Plan (FMRNP) and Comprehensive FMR National Master Plan 2020 to 2030.

Investments in strategic FMRs will give emphasis on geographically isolated and disadvantaged areas (GIDAs) and far-flung areas. Based on FMNRP, 259.32 km of FMR is proposed amounting to Php 4.64 billion, from 2023 to 2028. This includes a) Marinduque with 9.04 km FMRs amounting to Php 117.48 million, b) Occidental Mindoro with 52.47 km FMRs amounting to Php 723.86 million, c) Oriental Mindoro with 84.20 km FMRs amounting to Php 2.23 billion, d) Palawan with 48.43 km FMRs amounting to Php 577.21 million, and e) Romblon with 65.18 km FMRs amounting to Php 985.12 million.

The region will also utilize Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure (GEOAGRI)/Integrated Road for Agriculture and Development (IROAD), a web-based application that provides wider access to GIS-based data of all FMR projects in planning and investment programming activities and addresses duplication or overlapping of projects with other agencies.

Moreover, the region will eliminate barriers to efficient inter-island transport, primarily lack of modern/efficient ships and port facilities. Investment in shipbuilding will be promoted. It will provide link to the support system for fisherfolk (refer to Chapter 13).

Intensify A&F consolidation and clustering. Clustering or integration of SFFs and MSMEs will be encouraged to consolidate and expand agricultural products to a) achieve economies of scale; b) promote efficient production, processing, and value-adding; c) supply growing domestic demand and international market requirements; and d) provide wider access to formal credit, modern farm technologies and machineries, capacity buildings, livelihood projects, among others. The CDA, in coordination with DA and DAR, will intensify its efforts (including organization building and management) to integrate SFF and MSMEs into larger enterprises, and institutional buyers. Program on consolidation/organizing SFF will be prioritized in the provinces of Romblon, Marinduque, and Oriental Mindoro, which recorded the least number of accredited civil society organizations among the five MIMAROPA provinces. Likewise, in collaboration with LGUs, the

updating of DA's Registry System for Basic Sectors in Agriculture (RSBSA) and National Farmers and Fisheries Information System (NFFIS), otherwise known as the Juan Magsasaka Project Enrollment and Validation Georeferencing, will be accelerated. This will serve as efficient end-to-end monitoring tool of the government for all interventions distributed to farmer and fisherfolk beneficiaries.

Provide access to affordable financing. Crucial in ensuring access to financial and credit system among farmers is the completion/updating of farmers and fisherfolk registry and inventory of existing AFF investments. Organizing SFFs and strengthening existing cooperatives and associations will be enhanced to allow SFF to access affordable financing and credit programs of the government. Among the activities that can be conducted relative to this include i) facilitation of information awareness advocacy on financing programs by LGUs, especially to far-flung communities or GIDAs; and ii) conduct of capacity building in the preparation of documentary requirements. DA, DAR, CDA, and other concerned agencies will utilize both face-to-face and social media platforms (e.g., Facebook, Zoom) to reach wider audiences.

Coverage of innovative, affordable, and accessible financing schemes and processes and agriculture insurance and agri-credit guarantee programs for smallholder primary producers (crowdsourcing, digital banking) will also be expanded. This includes intensification of agricultural guarantee services and establishing more credit surety funds to mitigate risks by financial institutions in extending unsecured loans to farmers and fisherfolk. The DA, CDA, and BSP, in collaboration with LGUs, will intensify their efforts to improve the establishment and enhancing physical network of banks and financial institutions in rural areas, including financial literacy of SFF.

Develop the blue economy. Currently, the main focus of agricultural development programs has been agriculture or the green economy despite the country's archipelagic characteristics. The region must put needed resources to explore the potentials of the blue economy, particularly the fishing industry, by doing the following:

- i. Adopting measures to secure the Exclusive Economic Zone so that it can be safely accessible to local fisherfolk and other economic activities;
- ii. Eliminating barriers to efficient inter-island transport, primarily the lack of modern/efficient ships and port facilities;

- iii. Promoting investments in shipbuilding to private sector (e.g., by including it in the Strategic Investment Priority Plan (SIPP) and link it to the support system for fisherfolk [e.g., credit, port and processing facilities];
- iv. Formulating/updating FMA plan and organize FMA management body, who will lead in drafting broad policies, guidelines, and measures on establishing reference points and harvest control rules and endorse/recommend the appropriate management measures; and,
- v. Conducting awareness campaigns in coastal communities regarding the adoption of measures on securing the access to the country's fishing grounds.

Viable livelihood options for coastal communities will be promoted to address the seasonality of fisheries. This can be done through the provision of i) adaptive aquaculture and supplemental livelihood (e.g., salt production in Occidental Mindoro; dried fish and seaweed production in Palawan and Oriental Mindoro; souvenir/home furnishing production in Marinduque and Romblon); ii) integrated multi-species aquaculture; iii) establishment of online monitoring, documentation, and traceability of fishery catch (e.g., tuna in Occidental Mindoro); and iv) agricultural and tourism activities and other supplemental livelihood programs for fisherfolk and coastal communities (e.g., natural and organic skincare/beauty and souvenir production in Romblon and Oriental Mindoro).

The areas covering Kalayan Group of Islands will be promoted as rich fishing ground among fisherfolks and commercial fishing enterprises. It will be supported by DA-BFAR with substantial investment in fishing vessels, cold storage, fish landing, transportation, and marketing.

Resilience of AFF Value Chains improved

Adopt climate and disaster-resilient technologies. To mitigate the impact of climate and disaster, investments in systems for prediction of disasters,

include hazard estimation and weather forecasting, will be pursued. This involves a) the use of drones, remote sensing and earth observation technologies, modelling, and information generated by concerned agencies and b) the enhancement of existing crop management decision support tools such as the National Color-Coded Agricultural Guide (NCCAG), Rice Crop Manager (RCM) 2, AgriDoc App, CalamanSeek Application App, Farmers' Information and Technology Services (FITS) Kiosk, Climate Vulnerability and Risk Information System (CVRIS) of Oriental Mindoro, project Smarter Approaches to Reinvigorate Agriculture as an Industry in the Philippines (SARAI), and other online applications. These tools and instruments will be supported by appropriate ICT system to make it accessible and available for small farmers and fisherfolk.

Moreover, the LGUs will intensify their efforts to disseminate timely local weather updates and forecast and climate outlook through the utilization of social media platforms such as their official website and Facebook page and translating these reports in their local dialect. This will ensure that a higher number of primary producers are informed.

Integrate climate and disaster risks in AFF planning and programming. The vulnerability of the region to different hazards highlights the need to integrate and adopt climate and disaster risks in the regional and local development plans, and investment programs. Formulation and updating of regional and local development and land use plans will be governed by the planning guidelines and manuals on mainstreaming DRR-CCA issued by NEDA and DHSUD. These guidelines include GIS-based disaster risk assessment, which enables the user to determine factors for fatality and property damage for various hazard events, including the estimation of damage per land use type. Moreover, DHSUD will prioritize the provision of capacity building on geographic information system (GIS) applications to LGUs with no CLUPs and those with CLUPs but for updating (see Table 7.3).

Table 7.3 Municipalities with No CLUPs and For Updating (as of June 2022)

PROVINCE/MUNICIPALITIES	STATUS OF CLUP	PROVINCE/MUNICIPALITIES	STATUS OF CLUP
Marinduque		Palawan	
Gasan	For updating	Aborlan	For updating
Mogpog	For updating	Agutaya	For updating
Santa Cruz	For updating	Araceli	For updating
Occidental Mindoro		Balabac	For updating
Abra de Ilog	For updating	Brooke's Point	For updating
Calintaan	For updating	Busuanga	For updating
Looc	For updating	Cagayancillo	For updating
Magsaysay	No CLUP	Dumaran	For updating
Rizal	No CLUP	El Nido (Bacuit)	For updating
Oriental Mindoro		Narra	For updating
Bansud	For updating	Puerto Princesa City	For updating
Bongabong	For updating	Taytay	No CLUP
Bulalacao (San Pedro)	For updating	Romblon	
Naujan	For updating	Alcantara	For updating
Puerto Galera	For updating	Concepcion	For updating
Roxas	For updating	Romblon (Capital)	For updating
San Teodoro	For updating	San Agustin	For updating
Socorro	For updating	San Andres	For updating
Victoria	For updating	San Jose	For updating
		Cajidiocan	No CLUP
		Corcuera	No CLUP
		Santa Maria (Imelda)	No CLUP

Source: DHSUD MIMAROPA

Local climate change trends and projections will also be considered in the construction of disaster- and climate-resilient farm structures (e.g., small-scale irrigation systems and flood protection system) and retrofitting of existing ones.

Expand agricultural insurance coverage. As of 2021, about 24.26 percent of the total registered farmers and fisherfolk in the region are covered by insurance by PCIC. This is translated to 73,083 farmers and fisherfolk. However, with the limited budget and subsidies provided, the amount of insurance coverage is inadequate to cover production cost and losses. This calls for an increased capitalization of PCIC to boost agricultural and fishery insurance coverage including the implementation of index- and weather-based insurance schemes. Among the five MIMAROPA provinces, Marinduque, Romblon, and Palawan will be prioritized, as these provinces recorded the lowest

insurance coverage. Additional funds for LGUs based on Mandanas Ruling will be maximized to conduct partnership with LGUs to cover counterparts of the insurance coverage. Digital platforms will be utilized for faster transactions and payments.

Boost local capability on the production of AFF inputs. Economic shocks such as Russian-Ukraine war, global health/pandemic outbreak, and disasters highlight the need to create local business for domestic production of AFF inputs to reduce supply chain disruptions and ensure sufficient buffer stocks and supply. This includes investment of private sector to increase domestic production of seeds/propagating materials, equipment and machinery, fertilizers, pesticides, and packaging materials for manufacturing industries. Likewise, input supply/sourcing will also pursue the establishment of the following facilities: a) organic/composting centers;

b) fish hatcheries and nurseries; c) feed milling plants; d) multiplier farms; and e) breeding centers for livestock and poultry. This strategy calls for the involvement of private sector to invest in these areas to augment government resources through the creation of conducive business climate in the region. establishment of feed mills, including the adoption of modern technologies, will address the high cost of inputs, which is one of the major concerns of hog growers in the region.

Agricultural institutions strengthened

Improve coordination and convergence of government agencies in planning, programming, and budgeting. The policy of decentralization stipulated in the Constitution and other relevant laws as well as the impact of Supreme Court Ruling on Mandanas case will be carried out systematically and efficiently through Executive Order (EO) No. 138, s. 2021, or the “Full Devolution of Certain Functions of the Executive Branch to Local Governments, Creation of a Committee on Devolution (ComDev), and For Other Purposes.” In this regard, localization efforts and initiatives to provide direction setting on national aspirations with local priorities in terms of providing basic services and facilities to the LGUs will be intensified. This calls for the reorganization and restructuring of concerned agencies (e.g., DA, DAR) that will enable them to: i) assume more strategic and steering functions to address persistent development issues; ii) efficiently implement AFF plans and programs at the national and sub-national levels; and iii) rationalize land administration and management functions. Devolution Transition Plans of concerned agencies and LGUs will be considered in the planning and investment programming process.

The CDA, DA, and LGUs will strengthen their vertical and horizontal coordination mechanisms to enhance the capacity of agricultural cooperatives and organizations in terms of organizing smallholder farmers and providing them link with investors. PAFES, ATI, TESDA, DTI, DOST, and SUCs will be tapped to deliver extension services and other competency-enhancing interventions needed by SFF, AFF-based MSMEs, cooperatives, and associations.

To hasten the land titling process in the region, the MIMAROPA RLUC and JAO No. 01, s.2012, Regional Technical Working Group will continue to conduct activities to facilitate the exclusion/segregation of all land covered by titles for the issuance of certificate of non-overlap (CNO) in ancestral domain/ancestral land (AD/AL) survey plans. This activity will focus on selected municipalities in Occidental Mindoro, Oriental Mindoro, and Palawan, which are identified as RTF-ELCAC priority convergence areas.

Enhance support to agricultural education and job-skills matching. CHED, in collaboration with TESDA, DOLE, and LGUs, will continue to evaluate and enhance the labor capacities of seasonal workers (e.g., farmers, fisherfolk, and farm laborers) through reskilling, upskilling, and development of job and skills matching/bridging programs. Capacity building on the adoption of innovative technology and modern technology on agri-fishery such (e.g, agricultural drone) will be provided to SFF. Likewise, the DA, TESDA, and DTI will be establishing/updating database on existing and emerging agri-fishery related industries that need skilled workers, which will serve as decision-making tool of all bridging program and interventions for agricultural education.

Legislative Agenda

The following legislative measures are necessary to support the strategies to modernize agriculture and agribusiness:

Table 7.4 Legislative Agenda to Modernize Agriculture and Agribusiness

LEGISLATIVE AGENDA	RATIONALE/KEYFEATURES	RESPONSIBLE AGENCY
National Land Use Act	This is to establish a national land use framework that will define the indicative priorities for land utilization and allocation across residential, infrastructure, agricultural, and protective uses and integrate efforts, monitor developments related to land use, and evolve policies, regulations and directions of land use planning processes. With the limited land and growing population of MIMAROPA Region, the proposed law will provide for the protection of prime agricultural lands against premature or illegal conversion of these lands into non-agricultural areas. It will support the regional priority thrusts of agri-fishery sector by implementing reforms and developmental programs and projects. The protection and development of this land ensure the following: a) adequate domestic production of foods, b) equitable distribution of allocation of public investments in agri-fishery sectors, and c) improved productivity.	NEDA, DENR, DAR, DTI, DPWH, DOTr, DOT, DILG, DOJ, DOE, DHSUD, and LGUs
Reconstructing and Rationalization of Department of Agriculture (DA)	Effective implementation of national agri-fishery policies, programs, and projects requires enhancing and strengthening agricultural institutions and governance. It calls for greater transparency and accountability to be established into nationally funded programs and projects. This proposed law aims to improve coordination and convergence of DA with other national government agencies and LGUs in planning, programming, and budgeting considering the implementation of EO 138, s. 2021. This will support the DA to perform more strategic and steering functions in rationalizing and managing land resources and effectively cascade agri-fishery programs and projects down to LGUs.	DA, District Representatives of MIMAROPA
Livestock, Poultry, and Dairy (LPD) Development and Competitiveness Act	MIMAROPA Region is not self-sufficient in many key food commodities particularly livestock, poultry, and dairy products. From 2017 to 2021, MIMAROPA's livestock and poultry productions were quite low compared to other regions, recording a total of an average growth of 8.29 percent only, from 121,163.41 MT in 2017 to 131,205.99 MT in 2021. Local production of these commodities, except swine production, remained inadequate to meet the growing domestic demands. Aside from high logistics cost due to the archipelagic nature of the region, the adverse effects of ASF outbreaks and bird flu in LPD industry aggravated its lagging production, pushing market prices to go up. This highlighted the need to provide developmental support to the LDP industry in terms of governing policies and regulations, innovative farm technologies, and machineries, logistics, financing, processing/manufacturing. The proposed law aims to a) improve the availability and affordability of nutritious and safe LPD products, b) pursue better government response to pests and diseases, and c) increase the incomes of LPD and corn farmers.	DA, DILG, LGUs

LEGISLATIVE AGENDA	RATIONALE/KEYFEATURES	RESPONSIBLE AGENCY
Amendment of Section 61 of the Fisheries Code of 1998 (RA 8550)	The MIMAROPA registered as the top three fishery producing region, contributing a share of 8.90 percent or 378,093.97 MT, to the national fishery production in 2021. However, the declining fishery production, high cost of inputs (e.g., fuel), lesser fishing activities due to weather disturbances and occurrence of typhoons, and illegal, unreported, and unregulated (IUU) fishing activities reported in the region pressed the government to import fishery products to augment the local catch. However, this may affect the livelihoods of local fisherfolk and producers and pull down farm gate prices of the local catch in the region. As such, there is a need to review and amend importation policies, including a) Fisheries Administrative Order No. 195 or the Rules and Regulations Governing Importation of Fresh/Chilled/Frozen and Fishery Aquatic Products, and b) Certificate of Necessity to Import (CNI). The proposed law aims to improve efficiency and transparency in the trade of fishery products that would reduce trade costs and enable the timely importation of fish to augment domestic production in cases of supply deficiency.	DA

08

Revitalize Industry



REVITALIZE INDUSTRY

The industry sector comprises diverse sub-industries: manufacturing, mining, construction, electricity, steam, water, and waste management. The industry contributed about one-third of the total gross regional domestic product (GRDP) from 2000 to 2021. Prominent industries in the region include mining and agro-based products.

The region is a known raw material supplier of agricultural and mineral products because of its rich and abundant natural resources. Existing industries that thrive in the area are mostly micro, cottage, and small industries except mining. The industry sector has yet to maximize its potential to help transform the regional economy and generate more quality jobs and competitive products.

Assessment and Challenges

Contribution of the Industry Sector to the GRDP.

The industry sector was the consistent second biggest contributor to the MIMAROPA GRDP next to the services sector. In 2021, it contributed 34.8 percent to the region's economy. The industry sector was observed to be growing as it showed positive growth rates since 2016. Moreover, the industry sector drove the region's economy and became the second fastest-growing region in 2018. However, the COVID-19 pandemic in 2020 which temporarily suspended production activities resulted in an estimated foregone revenue of Php 7 billion. During the same period, the sector suffered a negative growth rate of 8.2 percent, its lowest since 2007. The industry sector is set to bounce back from the setback as it registered a 2.2 percent growth in 2021 brought by the significant growth in construction.

Mining and quarrying. The region is the biggest contributor to the country's mining and quarrying outputs averaging a share of 27.6 percent from 2000 to 2021. It is also the second biggest contributor to the region's economy next to agriculture and fishing. However, the industry showed a decreasing growth trend since 2019. In 2021, the growth rate of mining and quarrying dropped to -10.6 percent. Similar trend can be observed in employment generated by the industry as it recorded a 50 percent decrease in employment from 10,000 workers in 2019 to 5,000 workers in 2020. Factors

that affected the growth performances of the sector include global market prices and ease of doing mining business in the region.

In 2021, metallic mining companies, which are operating in Palawan, contributed a total of Php2.67 billion of national and local taxes and fees. About 2.8 percent or a total of Php 75.60 million in royalties were paid to indigenous people in the province. Mining and mineral processing companies also spent Php 2.06 billion for their Annual Environmental Protection and Enhancement Program and Php 505.89 million for their Final Mine and Rehabilitation and Decommissioning Fund. Mineral products extracted in Palawan include nickel ore, mixed sulfide, and limonite ore. These mineral products were usually exported to China and Japan.

Production of non-metallic minerals was registered in Occidental Mindoro and Palawan. In 2021, Occidental Mindoro recorded a total of 18 sand and gravel producers recording a total production of 69,894 cubic meters amounting Php 21.04 million. Moreover, the 21 non-metallic mineral producers in Palawan generated Php 791.72 million in sales of non-metallic minerals which include hydrated lime, milk of lime, crushed limestone, and sand and gravel.

The issuance of Executive Order No. 130 s. 2021 lifted the 9-year mining ban on new mining agreements. This will attract new mining investors to operate mining in the region. However, mining companies will need to conduct several dialogues and consultations as the local communities are apprehensive of the effect of mining operations in their areas.

Manufacturing. The gross value added in manufacturing in the region grew at an average of 7.2 percent from 2001 to 2021. This was higher than the national average growth rate of 4.0 percent. The COVID-19 pandemic has had a minimal effect on the manufacturing sector as it recorded only negative 0.5 percent growth in 2020. On the other hand, the total employment in manufacturing industry decreased by 23.18 percent, from 69,000 in 2019 to 53,000 in 2020. Despite this, labor productivity in manufacturing managed to increase by 30 percent.

The share of the region to the total manufacturing outputs of the country was only 1.1 percent, the second lowest among regions. At the regional level, the share of manufacturing to the GRDP has been increasing since 2015. As the share of the mining industry in the regional economy continues to decline, revitalizing the manufacturing industry shall be done to improve the region's economy and create more jobs for the people.

The manufacturing industry of the region, which operates on a small-scale basis producing agro-based products, contributed 14.9 percent to the region's economy in 2021. This provides opportunities to the region's priority industries to be revitalized. Among the industries include: minerals, seaweeds, pineapple, cacao, rubber, and cashew in Palawan; onion, garlic, salt, seaweeds, and tuna in Occidental Mindoro; rice, banana, calamansi, coconut, bamboo, fisheries, and abaca in Oriental Mindoro; soft broom, fisheries, peanut butter, coconut, marble, in Romblon. Value addition or processing of these products would expand economic activities in manufacturing and will create more jobs.

Construction. The construction industry grew at an average of 9.6 percent from 2010-2021. It contributed an average of 2.1 percent annually to the country's GVA in construction. The industry also recorded a 16 percent decrease in employment generated, from 131,000 in 2019 to 110,000 in 2020. Labor productivity for the construction industry decreased

to negative 8.75 percent. On the other hand, the share of the industry to the GRDP increased from 2000 to 2021 registering an average share of 5.2 percent, 6th among all industries.

Construction statistics from PSA showed that the number of approved building permits in the region from 2006 to 2021 tripled, from 1,000 in 2006 to 3,314 in 2021. Majority or 64 percent of these permits were for residential purposes. Approved permits for non-residential, additions, alterations/repairs/renovations, and street furniture in the region also showed significant increases. Oriental Mindoro got the highest number of approved building permits in 2021 with 1,216 or 37 percent of the total approved building permits in the region. This was followed by Marinduque and Occidental Mindoro with 665 and 552, respectively.

Electricity, steam, water, and waste management (ESWWM). The share of the industry to the country's GVA on electricity, steam, water, and waste management recorded an annual average increase of 1.7 percent from 2000 to 2021. In 2021, the region ranked 13th in terms of highest growth rate for the industry. The growth of ESWWM in the region remained at 2.9 from 2019 to 2021. On the other hand, employment generated from the industry was lower by 40 percent, from 5,000 in 2019 to 3,000 in 2020.

Among the major challenges relative to industry performance of the region includes: (i) COVID-19 pandemic restrictions affecting physical trade fairs, closing of micro, small, and medium enterprises (MSMEs), and travel restrictions; (ii) issues on the promotion of trade such as increasing cost in logistics, travel restrictions, and force majeure; (iii) energy supply; (iv) limited access to finance or insufficient funds for MSMEs development; (v) limited capacity and access to technology and to e-commerce; and (vi) geopolitical conflicts.

Targets

Table 8.1 Indicator Matrix

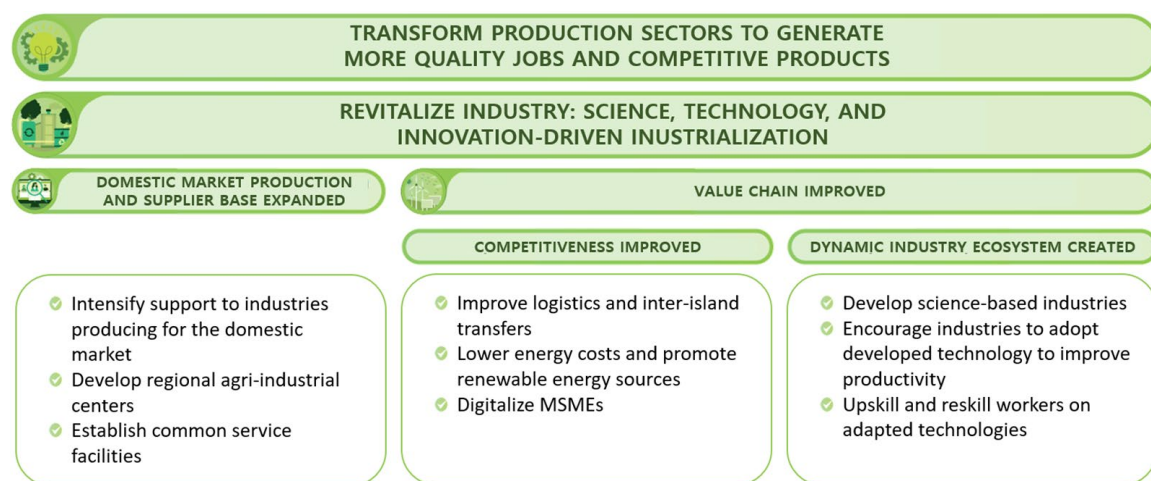
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028	
Domestic Market and Supplier Base Expanded									
Growth of industry GVA increased (%)	2021	2.20%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA
GVA growth of construction increased (%)	2021	17.50%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA
Moving Up the Value Chain Achieved									
A. Competitiveness Improved									
Percentage of Cities and Municipalities with improved economic dynamism score in the CMCI increased	2021	62% (45/73)	68%	74%	79%	84%	90%	100%	PSA
Share of medium enterprises to total number of MSMEs in the region increased (%)	2021	0.18%	0.19%	0.20%	0.21%	0.22%	0.23%	0.24%	PSA
B. Dynamic Industry Ecosystem Created									
Growth of labor productivity in the industry increased (%)	2020	15.48%	5-6%	5-6%	5-6%	5-6%	5-6%	5-6%	PSA,DTI, DOLE
Growth of labor productivity in manufacturing increased	2020	29.60%	15-16%	15-16%	15-16%	15-16%	15-16%	15-16%	PSA,DTI, DOLE
GVA growth of industry sector increased (%)	2021	2.20%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA,DTI
GVA growth of manufacturing sector increased (%)	2021	5.40%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA,DTI
Employment generated in industry increased (in thousands)	2020	171	174	177	180	183	186	189	PSA, DTI, DOLE
Number of industry roadmaps updated	2021	6	2	0	0	0	0	0	DTI MIMAROPA
Percentage of Negosyo Centers established/ operationalized (61/73)	2022	84%	86%	89%	92%	95%	97%	100%	DTI, LGUs
Assisted MSMEs adapting e-commerce in business operations (%)	2022	48% (7,513/ 15,358)	Increasing						DTI
Number of Regional Inclusive Innovation Centers (RIICs) established/ maintained	2022	0	1	1	1	1	1	1	DTI/DOST
Percentage of 6-digit export products increased	2021	10%	10%	10%	10%	10%	10%	10%	PSA
Inter-Sectoral Linkages Enhanced									
Number of Regional Inclusive Innovation Centers (RIICs) established/ maintained	2022	0	1	1	1	1	1	1	DTI/DOST

Sources: PSA MIMAROPA, DTI MIMAROPA, DOLE MIMAROPA, DOST MIMAROPA, and LGUs

Strategies

To achieve the economic transformation and a prosperous, inclusive, and resilient society, two sub-chapter outcomes were identified. The first sub-sector outcome aims to expand domestic market production and supplier base which includes discussion on how strengthening of government-industry-academe linkages may promote in achieving the said outcome. The second sub-chapter outcome aims to improve value chain by improving competitiveness and creation of a dynamic industry ecosystem.

Figure 8.1 Strategy Framework to Revitalize Industry



Domestic Market Production and Supplier Base Expanded

Intensify support to industries that cater to domestic markets. Business establishments in the region are dominated by MSMEs. Their limited resources hinder them from competing against lower-priced imports in the domestic market. The 60 Negosyo Centers (NCs) established in MIMAROPA provide business advisory services to MSMEs to guide them on compliance, documentary and license requirements, financing, management, marketing, among others. The establishment of NCs to the 13 remaining municipalities would bring ease of business closer to MSMEs across the region. The NCs can also serve as avenues for business matching activities. Information from the NCs may also be used as reference in the identification of additional capacity programs, clustering of MSMEs, and potential mix of products and services between and among MSMEs.

To assist small businesses in product promotion, the LGUs usually conduct trade fairs mostly during local festivals. Moreover, DTI MIMAROPA has institutionalized MIMAROPA Naturally Trade Fair which started in 2015. The regional trade fair which is usually conducted in Metro Manila serves as a venue for emerging and accomplished entrepreneurs of the region to showcase their products and expand opportunities and markets. The total sales generated during the regional trade fair reached Php 90 million in 2019, higher than Php 4.5 million sales in 2015. However, the COVID-19 pandemic restricted the conduct of trade fair to online event.

The conduct of the regional trade fair in Metro Manila will be continued given the expected increase in retail activities because of the reopening of the economy. In addition to trade fairs, the region currently hosts four One Town One Product (OTOP) hubs in Romblon, Occidental Mindoro, Marinduque, and Paranaque City. The established OTOP hubs aims to increase the availability and accessibility of MIMAROPA products while reducing the transportation and distribution costs to its urban markets. An OTOP

hub may be established in Oriental Mindoro which can be easily accessed through the Strong Republic National Highway or the SRNH.

Develop Regional Agri-Industrial Centers (RAICs). Agriculture should be developed as an industry through the establishment of Regional Agri-Industrial Centers which will provide access to resources, including state-of-the art production technologies and value-adding facilities. The activities of OTOP, innovation centers, and knowledge hubs can also be integrated in the RAICs.

Currently, the region's state universities and colleges undertake various efforts to strengthen innovation, value-adding, and agri-industry development. Among these include the establishment of food innovation centers, innovation laboratories, woodworking and metalworking school factory, and technology business incubators.

The implementation of the proposed trading center and agro-processing zones in the Master Plan for Sustainable Urban Infrastructure Development for Calapan City will also be pursued.

Establish common service facilities. The Shared Service Facilities (SSF) Project, which is an initiative of the DTI, provides machinery, equipment, and tools to eligible cooperators under a shared system to boost product innovation and improve the competitiveness of the MSMEs. In 2022, a total of 41 SSFs in the region were established benefitting a total of 132 MSME beneficiaries. The facilities include: (i) Food Testing Laboratory in Marinduque State College amounting Php 5.19 million; (ii) SSF for enhancement of processing of coconut-based products in Oriental Mindoro worth Php 2.19 million; (iii) SSF in digitizing marble production in Romblon worth Php 2.58 million, (iv) SSF on cacao processing in Occidental Mindoro worth Php 1.9 million, and (v) SSF on Toll Packaging Palawan worth Php 2.13 million. Additional SSFs such as cold storage facilities for onion, garlic, soft-shell crabs, and other fishery products; packaging and labelling of agricultural commodities such as banana chips, dried fish, etc.; salt storage and packaging facilities; among others will be established in the medium term.

Another common service facility is the fabrication laboratories (Fab Labs) which capacitate MSMEs towards invention and innovation. Fab Labs are digital laboratories that help grassroots communities translate their design ideas into physical forms

through technology. The region may consider establishing Fab Lab in Oriental Mindoro and Palawan where more than half of the MSMEs are located. The establishment of Fab Labs in the region is expected to improve product competitiveness.

Value Chain Improved

Improving and streamlining value chain can improve business efficiency, increase productivity, provide more job opportunities, and create a dynamic industry ecosystem.

Improve logistics and interisland transfers. Integrating remote island economies into mainstream markets and creating a greater area of cooperation among the five provinces in MIMAROPA rely on dependable infrastructure and efficient delivery of transportation support services. Critical investments that would improve interisland connectivity mobility should be implemented (Refer to Chapter 13: Expand and upgrade infrastructure). This will improve internal and external trade links, lower distribution costs, and would open new opportunities for the industry sector in the region.

Lower energy costs and address other industry gaps. Investments in facilities for processing should be complemented with a stable and affordable power supply. Reliability of power supply and unstable cost of fuel and high dependence on fossil fuels in the region are still a major concern since frequent brownouts and high electricity cost are still experienced in most provinces. The region is still dependent on fossil fuels for electricity. Thus, higher prices can be observed when global prices for fuel such as diesel increased.

The region may transition to renewable energy sources as a cheap source of power supply. However, back-up power plants will still be needed as we transition to renewable energy sources given the latter's high investment cost. Identified renewable energy development projects to support energy generation in the region includes biomass, geothermal, wind, hydropower, and solar projects.

Further, promoting investment in power generation especially for renewable energy requires a favourable policy and regulatory framework that provides certainty and stability to investors (Refer to Chapter 13: Expand and upgrade infrastructure). Industry and value chain gaps will also be addressed to revitalize the industry sector, which suffered from the effects of

COVID-19 pandemic. Thus, advocacy on updating and formulating the business continuity plans will be done to avoid similar problems in the future. On the other hand, value-adding or processing activities on raw products like mineral ores and other agricultural outputs shall be considered in order to revitalize the industry.

Digitalize MSMEs. COVID-19 pandemic pushed the industry to embrace digitalization. Due to quarantine restrictions, MSMEs were forced to rely on the use of ICT and digital services in operating their businesses. In 2022, a total of 7,513 MSMEs utilized e-commerce and online payment in their selling and retailing activities.

Parallel to digitalization of MSMEs are the improvement activities for electronic business permits and licensing system (eBPLS) which enabled LGUs to apply and process building permits electronically. In 2021, 35 LGUs have used eBPLS for business permit and licensing processing.

Dynamic Industry Ecosystem Created

Develop science-based industries. The development and adoption of new technologies pave way for the creation of new products and improvement of services that may result in the emergence of new industries that would lead to better business climate.

To ensure that industry needs are being addressed, it is important that R&D and innovation initiatives are aligned with the MIMAROPA Regional Research and Development Agenda (MRDA). To further accelerate the innovative ecosystem of the region, it is important that the Science for Change Program (S4CP) be continued and strengthened. Information, Education, and Communication campaign, as well as capacity-building programs should also be conducted in the provinces of the region, especially for R&D partners in the SUCs which shall act as primary actors for R&D and STI.

To further improve the priority industries in the region, the respective priority industry roadmaps should be updated or revisited taking into consideration current domestic and international environment and development. The roadmaps should also consider formulated industry roadmaps developed by Department of Agriculture and its attached agencies, Department of Trade and

Industry, Department of Science and Technology and other roadmaps formulated by the government and private institutions. The updating of industry roadmaps on the priority commodities of the region aims to provide direction on how to make these industries competitive.

Encourage industries to adopt developed technologies to improve productivity. This includes the adoption of developed technologies that are responsive to the needs of the region in terms of industrialization. Currently, various DOST-developed technologies were promoted, adopted/ utilized in the region. These include floating seaweed dryers, Vigormin, eco-friendly septic system, ceramic water filter, flood early warning system, marble product packaging, wood finishing techniques, bioremediation. The region may host a forum to promote these technologies and allow the technology adaptors to share the advantages and usefulness of such projects. The region may also consider adoption of smart agriculture technologies from developed countries such as Japan and China, among others. Similarly, the agricultural policies from these countries on may also be adopted.

Upskill and reskill workers on adapted technologies. With the integration of ICT and smart technologies in the industry, the region's manpower needs capacity building through various trainings in order to catch-up with the current manpower demands. Such capacity building activities include the re-orientation of workers on new systems for digitalization, emerging products and services, and changing clients' preferences. In 2021, CHED MIMAROPA has updated the list of priority courses in the region which will guide incoming college students on possible in-demand courses. Further, the Department of Labor and Employment-Bureau of Local Employment published emerging, critical, and in-demand skills. (Refer to Chapter 6: Increase income-earning ability)

Inter-Sectoral Linkages Enhanced

Strengthen government-academe-industry linkages. Government agencies should continue partnerships with SUCs in the region in hosting programs, activities, and conduct of programs and projects relative to R&D and technology development. (Please refer to Chapter 4.2 Improve Education and Lifelong Learning)

Legislative Agenda

The following legislative measures are necessary to support the strategies to Revitalize Industry:

Table 8.2 Legislative Agenda to Revitalize Industry

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Enterprise Productivity Act	This aims to strengthen the productivity improvement and gain sharing between workers and enterprises. Enhancing productivity relies on providing a healthy business climate for business owners and employees. Productivity enhancement incentives should be identified to ensure motivation and productivity of the services and industry sector are at the highest. Having a competitive enterprise or business that provides a productivity enhancement interventions to its workers ensure business sustainability.	DOLE, DTI, NEDA
Internet Transactions Act	The bill seeks to establish an effective regulatory policy for commercial activities conducted through the internet or electronic means. The MIMAROPA, being an island region, mostly relies on e-commerce websites for their needs. The use of commerce for trading and shopping purposes ensures that optimal use of time and monetary resources. However, to ensure safety of consumers using the e-commerce and online shopping services transactions should be institutionalized. Thus, the importance of pushing for an internet transactions act to provide security mechanism for consumers.	DICT, DTI

09

Reinvigorate Services



REINVIGORATE SERVICES

This chapter aims to reinvigorate services by increasing employment and investments thereby enabling economic and social transformation in order to regain the region's high-growth path in developing a prosperous, inclusive, and resilient economy.

By 2028, the following subsector outcomes will be attained: (a) market expansion achieved, and (b) creativity and innovation in significant services growth drivers strengthened. Market expansion and digital transformation will create the pathways for services firms to enhance strong presence in markets, reach new market segments and buyer geographies and pursue diversification. The sector will gain strength, speed, and size from the dynamic ecosystem of technology, talent, and skills development, intellectual property (IP) rights protection, and competition for creativity and innovation.

Assessment and Challenges

The services sector is composed of diverse industries ranging from retail business to education and health services. In 2021, the share of services sector to the GRDP was the highest at 45.64 percent despite suffering directly from the effects of COVID-19 pandemic and indirectly from the effects of the Russian Ukraine conflict. This made the region a predominantly service-based economy.

The services sector was the largest sector in the economy with the share of 45.8 percent when MIMAROPA became the second fastest growing region in the country in 2018. It was also the largest employer with an average of 47 percent share in the region's total employment from 2017-2020. Location quotient analysis revealed the following major industries of the services sector: (i) wholesale, retail, and trade; (ii) financial and insurance activities; (iii) real estate activities; (iv) transport and storage; and (v) arts, entertainment, and recreation that contribute to tourism.

In 2021, the services sector recorded 19,133 establishments, 92 percent of which were classified as microenterprises. Business one-stop shops (BOSS) were established to further improve business efficiency, licensing services, and the business environment at the local level. From 2017-2021,

a total of 60 established and maintained Negosyo Centers (NCs) in the region provided assistance and services to 14,120 micro, small, and medium enterprises (MSMEs) to improve operations.

At the onset of the pandemic, MSMEs were forced to rely on the use of ICT and digital services in their business operations. In 2021, the improvement from business permits and licensing system (BPLS) to Integrated BPLS or iBPLS enabled online application and processing of building and occupancy permits by the LGUs and their constituents. However, only 36 percent of the LGUs in the region have adopted the system. A total of 5,398 MSMEs utilized e-commerce and online payment in their selling and retailing activities.

Tourism industry is one of the major economic growth drivers of the MIMAROPA region. From 2017-2021, the total tourist arrivals in the region reached 7.55 million that generated about PhP79.15 billion in receipts. However, the pandemic exposed the vulnerability of the region's tourism industry. The imposed community quarantines restricted the travel of tourists, which resulted to a 45.5 percent decrease in tourist arrivals during 2020. The industry is expected to bounce back and continue operations under the new normal with the reopening of the region's major tourist destinations.

Among the critical investments in support of tourism development is the implementation of Tourism Road Infrastructure Program (TRIP), which improved

access to major tourism destinations in the region. Currently, a total of 169 DOT-DPWH TRIP amounting to Php 6.37 billion are being implemented in the region, which cover almost 185.202 kms. The enactment of Republic Act No. 11904 or the Philippine Creative Industries Development Act assured protection of the rights and capacities of creative firms, artists, workers, indigenous cultural communities, content providers, and stakeholders and further elevation of the creative economy. There are several government initiatives on creative industries but with limited financial support.

The identified challenges in the services sector

included: (i) urgent need to bounce back from COVID-19 pandemic; (ii) environmental issues on the region's prime tourism destinations such as: sustainability of water quality, encroachment in easement and timberland areas, and inadequate sewage facilities; (iii) accessibility of tourism destinations and MIMAROPA as a whole (inadequate transportation connectivity); (iv) insufficient support facilities (power, water, internet); (v) limited manpower (some LGUs do not have permanent tourism officers/department); (vi) underdeveloped attractions and limited value-adding of products and services; and (vii) limited and outdated tourism information, including areas for investment.

Targets

Table 9.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028	
GVA Growth rate in the services sector accelerated (%)	2021	3.50%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA
GVA in Transportation, storage, and communication increased (%)	2021	-6.25%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA
GVA in Information and Communication increased (%)	2021	11.03%	6-7%	6-7%	6-7%	6-7%	6-7%	6-7%	PSA
GVA in Wholesale, Retail, and Trade increased (%)	2021	1.76%	5-6%	5-6%	5-6%	5-6%	5-6%	5-6%	PSA
Employment Generated in the services sector increased	2020	7.20%	5-6%	5-6%	5-6%	5-6%	5-6%	5-6%	PSA
Tourist Arrivals increased (%)	2021	-42.02%	227%	227%	227%	227%	227%	227%	DOT
Number of tourism enterprise zones established/ declared	2021	0	0	0	0	0	0	1	DOT-TIEZA
Percentage of accredited tourism establishments increased (%) 710 / 955	2021	74%	79%	83%	87%	91%	96%	100%	DOT

Sources: PSA MIMAROPA, DOT MIMAROPA, and DOT-TIEZA

Strategies

Given the abovementioned challenges, there is a need to reinvigorate the services sector to generate more quality jobs and competitive products. To attain the desired outcome of achieving market expansion and strengthening creativity and innovation in significant services growth drivers in the region, the following strategies shall be implemented:

Figure 9.1 Strategy Framework to Reinvigorate Services



Market expansion achieved

Diversify tourism products and services to rebuild the tourism industry

Promote diversification through multidimensional tourism that offers a range of experiences by highlighting the assets of the region: its people; natural endowments; tradition, heritage, and arts; food and gastronomy (including Halal); medical, health, and wellness; and meetings, incentives, conventions, and exhibitions (MICE); among others. The Department of Tourism (DOT) shall accelerate the roll-out of the product development manual and training modules for local government units (LGUs) to ensure the readiness of products and destinations for safe, smart, and sustainable tourism.

Several infrastructure facilities shall be established to support product diversification:

a. Tourism Enterprise Zones (TEZs). The Tourism Act of 1999 supports the establishment of TEZs to spur socioeconomic development through tourism. TEZs can be classified into (i) health and wellness; (ii) eco-tourism; (iii) general leisure; (iv) cultural heritage; and (v) mixed-use. TEZs will provide the

necessary vehicle to coordinate actions of the public and private sectors to address development barriers, attract and focus investment on specific geographic areas and upgrade product and service quality. MIMAROPA has two TEZs in Palawan: (i) flagship public TEZ, the Long Beach in San Vicente and (ii) private TEZ, the Jewel Resort and Spa in Puerto Princesa City.

Other major destinations in MIMAROPA that may be assessed for possible designation as TEZ include:

i. Puerto Galera in Oriental Mindoro. DOT shall provide funds for the formulation of a master plan prior to establishment of TEZ. The Comprehensive Land Use Plan (CLUP) of Puerto Galera may also be updated to include the Puerto Galera Windmill Farm Project which offers Tagaytay-like eco-tourism sites that may be developed as nature-based resorts and rest areas that will cater to tourists exploring the beaches during daytime. The project with eight wind turbines built atop the mountains in Baclayan at almost 2,700 feet above sea level offers majestic and almost surreal views of the whole town of Puerto Galera and the adjacent turquoise sea of the Verde Island Passage, the center of the world's marine biodiversity area.

ii. Lio Tourism Estate in El Nido, Palawan. The estate was designed and developed by Ayala Land as its first ecologically-sustainable tourism destination,

which can be accessed by direct flights from Manila to Lio Airport via Air Swift. The Lio Beach in El Nido is a four-kilometer beachline with views of Bacuit, El Nido Bay. Lio is a master planned community that values nature and takes locals and visitors to a journey of exciting adventures, new discoveries, and peaceful relaxation. Lio harbors several hotels, resorts, tourism and commercial establishments, and residential communities with world-class amenities like Huni, Casa Kalaw, Balai Adlao, Hotel Covo, Seda Lio, and El Nido Cove.

b. Peace Village Development Projects in Mindoro and Palawan. The development of peace villages will greatly boost tourism and other industries; promote inclusive-growth, peace and order, safety and security; and showcase diverse cultures and activities in the region. There are two potential peace village projects in MIMAROPA: (i) Brooke's Point in Palawan; and (ii) Mindoro Island particularly San Jose in Occidental Mindoro and Mansalay and Bulalacao in Oriental Mindoro. Per assessment, these areas can offer an array of cultural and agri-ecotourism products, which are usually in need of infrastructure support and marketing strategies. Thus, convergence projects on product marketing and community empowerment are necessary for the development of these products.

c. Sustainable Tourism Development Project in Coron and El Nido, Palawan. This will support sustainable, resilient, and inclusive ocean-based tourism development in Coron and El Nido through: (i) improvement of urban infrastructure to reduce pollution, improve oceans health, and expand access to basic urban services; (ii) protection of marine ecosystems at key tourist sites by reducing tourism pressures and promoting alternative livelihoods to address overexploitation of marine resources; and (iii) support to tourism micro-small-and-medium enterprise (MSME) recovery through upgrading of productivity support, and skills training for tourism workers focused on digital technologies. To realize the benefits of STDP, financing agreements shall be finalized. TIEZA, in coordination with the Department of Finance (DOF), is studying the possibility of coursing the loan through a government financial institution.

d. Sustainable farm tourism. This is underscored as one of the fastest growing sectors in the country. MIMAROPA is one of the region that have established farm tourism. There are three DOT-accredited agri-tourism farm sites in Boac, Marinduque: (i)

AGREA Farm Estate in Brgy. Cawit; (ii) DMDC Farm in Brgy. Poras; and (iii) Tiyo Ninoy's Integrated Farm in Brgy. Tanza. There are also existing farms in other provinces that can be further developed to meet the requirements for DOT accreditation such as: (i) Yamang-bukid, Mitra Farm, and Coron Agri Ecotourism Farm in Palawan; (ii) Infinity Farm Resort, Faith Paradise Agri Tourism Farm and Hiraya Farm and Resort in Oriental Mindoro; (iii) Tabing-ilog Farm, Love Hidden Farm, Rock of Hope Tomoco's Farm Reort, Argel Farm and Resort in Occidental Mindoro; and (iv) Dad's Bukid and Roldan's agri-tourism farm in Romblon.

e. Convention Centers. Establishing convention centers in the area encourages more investments, infrastructure improvement, and tourism activities. TIEZA sets the requirements for globally competitive convention centers that can host regional, national, and international gatherings such as conferences, symposiums, forum, exhibits, trade shows, concerts, and sports activities among others. MIMAROPA has three convention centers in (i) Calapan City, Oriental Mindoro; (ii) Odiongan, Romblon; and (iii) Boac, Marinduque.

For years, the region's tourism brand, "MIMAROPA Naturally: The Destination of Choice", has been used to showcase the region's diverse array of tourist destinations with white sand beaches, rich marine biodiversity, picturesque landscape as well as various activities like scuba, diving, island hopping, snorkeling, trekking, and photography. This shall be enhanced to create a strong identity highlighting cultural legacies, natural wonders, and other tourism products and services that make the region stand out as a destination with value.

MIMAROPA's tourism industry has evolved throughout the years with the newest offerings of different sites and products as well as business and investment opportunities. Alongside this development, new and more imaginative marketing strategies are needed to showcase the character as a promising and world-class tourist destination that reflects and radiates the region's culture and way of life of the MIMAROPAns.

MIMAROPA – The Destination of Choice FB page, the official marketing and promotions page of the Department of Tourism (DOT) MIMAROPA, highlighted the must-visit places in the region. MIMAROPA boasts major tourism destinations like Coron, El Nido, and Puerto Princesa in

Palawan, Puerto Galera in Oriental Mindoro, Apo Reef Natural Park in Occidental Mindoro, and Mt. Guiting-guiting in Romblon, which are gaining global popularity through foreign recognitions. There are four sustainable tourism destinations established in MIMAROPA from 2017-2021: Puerto Pension in Puerto Princesa City; and Pangulasian, Lagen, and Miniloc islands in El Nido, Palawan. On May 24, 2019 edition, Spot.ph recommended ten places for snorkeling, three of which are located in MIMAROPA: (i) Coral Garden in Puerto Galera, Oriental Mindoro; (ii) Siete Pecados in Coron, Palawan; and (iii) Miniloc Island in El Nido Palawan.

Fast-track business processing to ensure efficient and effective public service delivery

Simplify and harmonize regulatory requirements in business name registration and licensing processes. Republic Act No. 11032 or the Ease of Doing Business and Efficient Government Delivery Service Act of 2018 provided the framework and mechanism to simplify the lengthy and tedious regulatory processes and requirements in obtaining business permits and licenses. LGUs shall devise ways to encourage more local enterprises and businesses and streamline the requirements and business processes to help MSMEs sustain operations, adopt innovations, and enhance competitiveness.

Streamline requirements and procedures at ports and airports to reduce transport and logistics costs. Redundancies and steps in the submission of requirements to regulatory agencies shall be reduced, particularly in permits and licenses, documentary requirements, client steps, and fees for cold storage, arrastre, freight forwarding, trucking, warehousing, and domestic shipping businesses. Accreditation processes between DTI and concerned agencies shall be harmonized such as the Civil Aeronautics Board (CAB) for freight forwarding companies. Availability of budget for agencies, such as Bureau of Animal Industry (BAI), Bureau of Plant Industry (BPI), and Bureau of Fisheries and Aquatic Resources (BFAR) shall be ensured for hiring of manpower and procurement of appropriate system and software to support efficient 24/7 operations. LGUs shall be encouraged to remove pass-thru fees and ensure safe entry and exit of goods in their respective areas of jurisdiction. To assure the public that the agency remains steadfast in its mandate of enhancing trade facilitation, anchored in its drive of providing quality

service to its stakeholders and the public, there is also a need for new District Collection Office in the busy ports in MIMAROPA particularly those with recorded trading activities in Brooke's Point Agro Industrial Economic Zone, and Rio Tuba Export Processing Zone in Palawan; and Calapan City, and Roxas ports in Oriental Mindoro.

Accelerate e-commerce in businesses to improve processes and wider reach

Intensify awareness and advocacy campaigns on the benefits of e-commerce in increasing their visibility and global reach. Streamlining business operations through digitalization increases productivity and entrepreneur's confidence. DOST MIMAROPA implements the Digitalization of Business Processes of Selected MSMEs project under Small Enterprise Technology Upgrading Program (SETUP). The project aims to assist MIMAROPA MSMEs in improving their business operations and addressing customer needs through digital technology solutions. It includes the development of inventory and logistics management systems for enterprises by collaborating with state universities and colleges (SUCs). The Web-based Inventory Monitoring and Logistics Management System (WIMLMS) was turned over to three MSMEs in Puerto Princesa, Palawan: (i) Palawan Adventist Health Products; (i) Le Dessert Cakes and Pastries; (iii) and St. Ives Bakeshop. It is an automated inventory and order management tool developed by PSU which aims to monitor the movement of finished products with real-time dashboard and track the daily transactions of the business from production facility to the branches/customers.

Establish secure e-payment systems and ensure consumer/supplier protection online to promote trust and confidence. To establish a digital ecosystem through inclusive technology for productivity and efficiency, DTI MIMAROPA launched the MIMAROPA Digitally campaign. It is a sub-brand of the MIMAROPA Naturally that promotes the assistance of provincial offices and Negosyo Centers (NCs) to all types of enterprises through established and safe digital payment gateways towards a financially inclusive environment.

The initiative provides opportunities for the development of a vibrant digital payment ecosystem (from business payment and transactions up to

employee salary and bills payment) with different e-commerce merchant acquirers, online payment aggregators, electronic wallets, and payment networks. To ensure delivery of services in a secure and efficient manner, DTI MIMAROPA also partnered with GCash in conducting free onboarding and financial literacy sessions in select municipalities that successfully registered over 800 MSMEs, TODA members and operators, market vendors, and sari-sari store owners. DTI MIMAROPA received the Excellence in Digital Ecosystem Innovation Award for its efforts to promote digital financial inclusion during the GCash Digital Excellence Awards in 2022.

Creativity and innovation in significant services growth drivers strengthened

Increase access of MSMEs to capital, digital technologies, and startups. Investments in STI-driven upgrading of MSMEs, including process, product, organization, and marketing shall be prioritized. Through the Center for Artificial Intelligence Research (CAIR) and DTI's Regional Inclusive Innovation Centers, MSMEs will gain access to ideas, technology, and talents to improve firm performance. Under the Philippine Innovation Act, entities from the creative industries may avail of shared service facilities from DTI and infrastructure and R&D support programs from Department of Science and Technology (DOST).

Funds and incentives, such as low-interest loans, scholarships, research grants, training subsidies to promote startups, digital technology careers, innovations, and research projects shall be provided to address industry needs. Financial capital is provided under the Corporate Recovery and Tax Incentives for Enterprises Act, Innovation Act, Innovation Startup Fund Act, and Digital Workforce Competitiveness Act to support startup entrepreneurs, scientists, and researchers in achieving STI interventions, accelerating transfer and commercialization of generated technologies, and strengthening of capability of human resources and institutions to undertake R&D.

Start-up policies and programs shall be aligned and harmonized by building the startup ecosystem

and creating a common understanding of the startup journey and ecosystem development among government agencies. The government shall focus on promoting innovation and entrepreneurship, and creating an enabling business environment for startups, and allowing more foreign participation.

Facilitate inter-island connectivity for seamless mobility of people and goods in the region. Inter-island connectivity projects were identified in Chapter 13 Expand and Upgrade Infrastructure. Access to major tourism destinations shall be improved particularly those within rural and far-flung areas like Coron and Culion in Palawan that entails high logistics costs. Tourism routes i.e. air, shipping and maritime, and land supported by DOT, DOTr and DPWH shall be developed and expanded. Updating of the National Tourism Cruise Strategy shall be supported to enhance the contributions of local and international cruise tourism and maritime industries to the blue ocean economy and jobs.

Ensure a sustainable supply of competitive, creative and high skilled workforce

Enhance digital, management, and entrepreneurship competencies of workforce. The implementation of the Digital Workforce Competitiveness Act in the region shall be explored, in partnership with DTI and other relevant government agencies and private sector, to establish co-working or shared service facilities to support the development and enhancement of digital skills and competencies of entrepreneurs and workforce, especially women.

Support the implementation of the Philippine Tourism Human Capital Development Plan 2021-2025. To ensure steady supply of trained manpower and competent world-class Filipino tourism professionals, the Tourism Human Capital Development Plan shall be implemented and promoted in the region. DOT's Filipino Brand of Service Excellence (FBSE) Program shall continue the promotion of best qualities and positive values of Filipino hospitality.

Support the formulation and implementation of a Philippine Creative Industries Development Plan mandated under RA 11904. The region's unique assets shall be identified and shall serve as

input in the formulation and implementation of the Philippine Creative Industries Development Plan, which includes value creation, market creation and expansion, investment targets, intellectual property targets, among others.

Support the Creative Industry Development (CIDC) and its partners. Available assistance from CIDC shall be explored such as training and capacity building in business development, financial literacy, ethics, digital skills, taxation, design thinking, contracts, negotiations, and entrepreneurship.

Promote the Malikhaling Pinoy Creative Market Acceleration Program in the Region. This handholding program provides support for trade and investment promotion to increase value chain participation of creative industries.

Support the establishment of Creative Educational Plan by the Department of Education (DepEd), Commission on Higher Education (CHED), and Technical Education and Skills Development Authority (TESDA), in partnership with the private sector and academe. The Creative Educational Plan aims to provide support, develop relevant programs, and grant scholarships to deserving students related to creative industries, including technical-vocational training scholarship programs and continuous education. The CIDC shall provide technical and financial assistance to providers of non-formal learning modalities. DepEd, CHED, and TESDA shall continue to extend incentives to academic institutions that provide funds and grants

for the research of their students and faculty on the development and promotion of the services sector.

Strengthen collaboration with the private sector. Involvement of the private sector in mentoring programs and promotion of Science-Technology-Engineering-Entrepreneurship-Arts-Mathematics careers and interventions shall be pursued to build talents in differentiated services proposition. This initiative aims to increase financial, digital, and cybersecurity literacy, and develop entrepreneurial and creative skills from early schooling by revising the curricula (inclusion of mandatory basic computer education, introduction of relevant electives/micro credentials across courses) to support IT-BPM upgrading. It is also high-time to maximize the opportunities that the Philippines' (IT-BPM) sector is one of the best-performing and employment generating activities in the past years. Deeper reforms like the provision of reliable and affordable electricity and digital connection shall be prioritized to create a competitive business environment taking advantage of the region's proximity to the mainland Luzon. The Batangas-Mindoro Interconnection Project (BMIP), a power transmission project that will connect Mindoro Island to mainland Luzon through the installation of a 25-km. submarine cable and a 51-km. overhead lines along with associated cable terminal stations, is expected to provide reliable and continuous supply of power in the provinces of Oriental Mindoro and Occidental Mindoro.

Legislative Agenda

For the Plan period, the following legislative agenda will be pursued:

Table 9.2 Legislative Agenda to Reinvigorate Services

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Open Access in Data Transmission	Access to data and information is increasingly becoming more important as society accelerates transition to the digital world or the new normal e.g. work from home, online classes/distance learning, telemedicine, and virtual meetings. Due to the region's archipelagic features, the conduct of hybrid/virtual meetings seemed to be one of the breakthroughs of the pandemic. To meet the ever increasing demand for digitalization, a robust digital infrastructure is needed. The proposed bill on Open Access in Data Transmission Act becomes more urgent to spur the development of new information and communication technology (ICT) infrastructure that will pave the way for the digital economy. This aims to level the playing field in data transmission and telecommunications market. Its passage will strengthen value chain linkages in the industry and services sectors and facilitate the realization of the full potential of e-commerce and digital trade. This Act also seeks to lower barriers to market entry, fast-track and lower the cost of deploying broadband facilities, and make more spectrum available for Internet service. These changes will also help the internet industry in the region as well as the expected increase in industry competition that will hopefully lead to innovation, expanded access, improved services, and enable more MIMAROPAns to adapt to the new normal by participating in the digital economy.	DICT, DTI
International Maritime Competitiveness Act	MIMAROPA has ports with recorded trading activities - Sub-Port of Puerto Princesa, Brooke's Point Agro Industrial Economic Zone, and Rio Tuba Export Processing Zone in Palawan that will benefit from this bill. It applies to all aspects affecting the imposition of shipping charges by international carriers arriving at or originating from Philippine ports. It also seeks to strengthen the government oversight over local charges imposed by international shipping lines and empower government institutions to promote efficient, competitive and reliable logistics services. The bill is expected to address the expensive shipping rates and regulate the imposition of "excessive, arbitrary, and unreasonable" shipping charges by foreign shipping lines, such as the "destination and origin charges," container deposit fees, container cleaning fees, detention and demurrage charges, and port congestion charges. Under the bill, all port or terminal operators, international carriers, non-vessel operating common carriers (NVOCC), and forwarders should inform MARINA of their regular shipping charges and fees and publish the same in a newspaper of general circulation. No charges or fees should be imposed beyond the published rates.	DOTr, MARINA, DTI



10

**Advance Research and
Development, Technology, and
Innovation**

ADVANCE RESEARCH AND DEVELOPMENT, TECHNOLOGY, AND INNOVATION

Research and development (R&D) and innovation is a process to generate new knowledge that will be used for the creation of new technologies, products, services, or systems. In MIMAROPA, there were observed improvements in the R&D activities such as the increase in expenditure and number of personnel. However, these are not enough; in particular, the level of R&D expenditure of the region is the lowest among the regions based on the 2018 R&D Survey Reports.

Further, the capacity of personnel and technology generators in the commercialization and adoption of R&D and developed technologies, and Intellectual Property Rights (IPR) approval also need to be improved. The recently approved laws and policies on innovation as well as the presence of the guiding documents such as the National Innovation Agenda and Strategy Document (NIASD) and the PAGTANAW 2050 are expected to intensify R&D activities and improve the Science, Technology, and Innovation ecosystem of the country and the region.

Thus, the region's strategic direction for the next six years shall focus on the improvement of the region's R&D and Science, Technology, and Innovation (STI) ecosystem by intensifying R&D activities such as advancing demand-driven R&D and technology, ensuring commercialization, adoption, and utilization of R&D and technologies, and increasing entrepreneurial capacity and productivity through innovation.

Assessment and Challenges

Research and Development Ecosystem. The most recent statistics on research and development in MIMAROPA are available in the 2018 R&D survey and the Compendium of Science and Technology Statistics released in 2021. Another source of data statistics on R&D is the Research and Development Information Unified System (RADIUS), which was established for the region to serve as a database for R&D-related information. The system may serve as a repository for R&D related products of the region that may be used in the timely assessment of the region's R&D activities in the absence of the data from the R&D surveys. Below are the highlights of studies/reports including the statistical information gathered from RADIUS:

i. The research and development expenditure in

the region increased by 836 percent from Php 161.73 million in 2015 to Php 1.51 billion in 2018. However, the region's total R&D expenditure in 2018 was the lowest among the regions in the country at 0.03 percent. The ratio of R&D expenditure to the MIMAROPA GRDP also increased from 0.03 percent in 2015 to 0.41 percent in 2018. This was below the national target of 1 percent of the GDP.

ii. The R&D personnel in the region increased by 194 percent from 404 in 2015 to 1,188 in 2018. About 86 percent of the personnel came from government institutions. Moreover, researchers in the region increased from 325 in 2015 to 786 in 2018. However, the region is the 13th among regions in terms of highest number of researchers in the country. Despite these developments in R&D Human Resources it is still important to improve the number of R&D personnel that would serve as knowledge and technology generators of the region.

iii. As of 2022, a total of 33 Intellectual Property Rights (IPR) patent applications were recorded in RADIUS. Out of these applications 4 were granted. On the other hand, a total of 83 IPR applications for utility models were recorded in 2022 out of which 35 were granted or 42 percent of the utility model applications. The low application and granting of IPRs may be attributed to the limited capacity of R&D personnel as well as limited resources for IPR application.

The improvements in the status of research and development in the region may be attributed to the activities conducted by the three R&D consortia in the region, namely: (i) MIMAROPA Health Research and Development Consortium (MHRDC); (ii) Southern Tagalog Islands Research and Development Consortium (STIRDC); and (iii) MIMAROPA Agriculture, Aquatic and Natural Resources Research and Development Consortium (MAARRDEC). The research-related activities of these three consortia are harmonized through the formulation of the MIMAROPA Research and Development Agenda (RDA) which provides the region's strategic direction and priority areas relative to R&D. The region's State Universities and Colleges (SUCs), namely Marinduque State College (MSC), Occidental Mindoro State College (OMSC), Mindoro State University (MSU), Palawan State University (PSU), Romblon State University (RSU), and Western Philippines University (WPU) contributed hugely in the formulation of the RDA, which is currently being updated. The SUCs are considered indispensable partners for the enhancement of the region's R&D and innovation ecosystem.

At the regional level, the MIMAROPA Regional Research, Development, and Innovation Committee (RRDIC) was created by the RDC to serve as a clearing house for issues relative to R&D, technology, and innovation. The RRDIC ensures that policies and activities relative to R&D and innovation are responsive to the development thrusts of MIMAROPA. The Council relies greatly on government-academe partnerships to further develop the region R&D and innovation ecosystem. The six SUCs continuous to provide valuable and indispensable support to the RRDIC.

Among the major challenges relative to R&D performance of the region include the following: (i) low R&D expenditure and R&D intensity; (ii) availability of annual R&D related data; and

(iii) limited capacity of R&D personnel as well as resources for R&D application.

Science, Technology, and Innovation Ecosystem.

The country ranked 59th in the 2022 Global Innovation Index (GII) which was lower than the previous ranking. At the regional level, the innovative capacity was included as an indicator for the Cities and Municipalities Competitiveness Index (CMCI) under the Economic Dynamism Pillar. Among the innovation facilities established in the region were: Technology Business Incubation Hubs, Start-up Innovation Hubs, Fabrication Laboratories (Fab Lab), Shared Services Facilities (SSF), Negosyo Centers providing innovation support, Small Enterprises Technology Upgrading Program (SET-UP), Regional Inclusive Innovation Centers (RIIC), and R&D Centers. The region hosts a number of SSFs and proposes the establishment of priority SSFs in the region. (refer to Chapter 8: Revitalize Industry or pp. 151-152)

The region's SUCs play a significant role in improving the STI ecosystem in the region. Currently, two technology business incubators (TBIs) were established in the region, namely, (1) the Palawan International TBI by the Palawan State University, and (2) the Agriculture and Aquatic TBI by the Western Philippine University. A TBI is a facility where start-ups are hosted and business development services are provided to promote innovation and technopreneurship in the community and to improve competitiveness among strategic sectors, as well as development and commercialization of new technologies. Currently, nine active startup incubates are being hosted in the region generating a revenue of 20 million pesos in 2021 and contributing to the region's employment.

In terms of technology adoption, the number of adaptors of developed technologies in the region decreased from 87 in 2015 to 47 in 2021, falling short of the RDP target of 98 by 52 percent. This may be attributed to the low linkage between technology generators and end-users. Also, technologies are being developed with no specific end-users in mind, affecting the adoption of technologies in the region.

One of the major programs being implemented to foster science, technology, and innovation in the region is the Small Enterprise Technology Upgrading Program (SETUP) by the Department of Science and Technology. Assisted firms under the program

continuously increased from 64 firms in 2019 to 107 in 2021. On the other hand, the number of projects under the DOST-SETUP decreased from 55 to 49 during the same period. Technology interventions provided for firms also decreased from 87 in 2015 to 47 in 2021.

The passage of critical STI-related laws such as the RA 11293 or the Philippine Innovation Act, the RA 11337 or the Innovative Start-up Act, and the RA 7459 or the Inventors and Invention

Incentives Act of the Philippines, is expected to improve the STI ecosystem in the next six years.

Among the major challenges relative to innovation performance of the region include the following: (i) partnership between academe and industry in terms of technology development; (ii) low adoption of developed technologies; and (iii) commercialization of developed technologies.

Targets

Table 10.1 Indicator Matrix

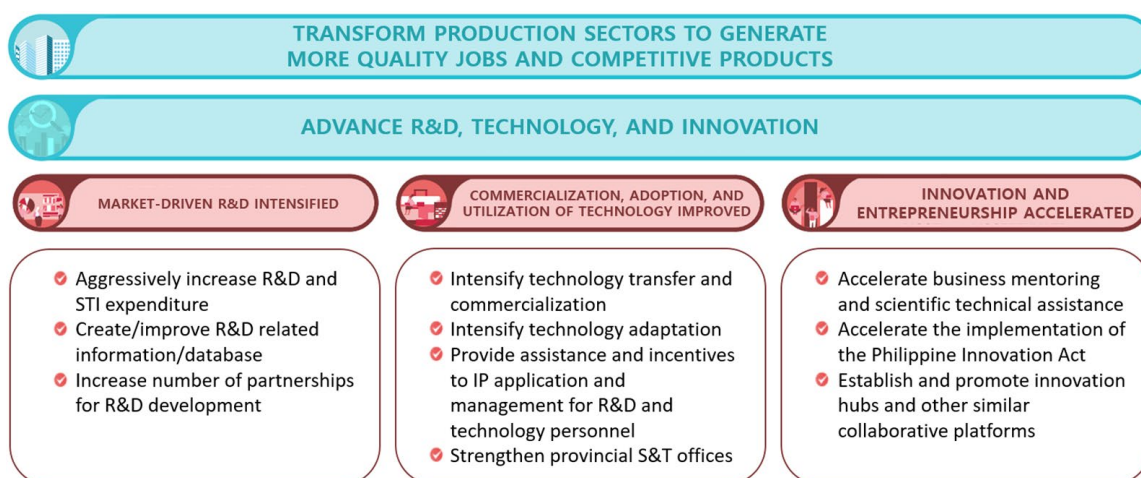
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028	
Market Driven R&D intensified									
Total R&D expenditure as % of GRDP increased	2018	0.03	0.04%	0.05%	0.06%	0.07%	0.08%	0.09%	DOST-MIMAROPA/ Compendium of S&T statistics 2018
R&D expenditures of MIMAROPA increased	2018	836%	10%	10%	10%	10%	10%	10%	DOST-MIMAROPA/ Compendium of S&T statistics 2018
R&D intensity of MIMAROPA increased	2018	0.41	0.5	0.6	0.7	0.8	0.9	1	DOST-MIMAROPA/ Compendium of S&T statistics 2018
Percentage of Researchers increased (% per population)	2018	2.51%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	DOST-MIMAROPA/ Compendium of S&T statistics 2018
Commercialization, Adoption, and Utilization, of Technology Improved									
Number of R&D products commercialized increased	2022	3	1	1	1	1	1	1	DTI, DOST, DICT
Ratio of granted Patent applications to the total patents application increased (%) (RADIUS)	2022	12%	12%	12%	12%	12%	12%	12%	DOST-MIMAROPA
Ratio of granted Utility Models to the total utility models application increased (%) (RADIUS)	2022	42%	42%	42%	42%	42%	42%	42%	DOST-MIMAROPA
Innovation and Entrepreneurship Accelerated									
Number of startups assisted	2022	38	Increasing						DOST, DTI, DICT

Sources: DOST MIMAROPA, DTI MIMAROPA, and DICT MIMAROPA

Strategies

To enable the production sectors to generate more quality jobs and competitive products, there is a need to advance R&D, technology and innovation. The desired outcome is to intensify market-driven and basic R&D activities, improve commercialization, adoption, and utilization of technology, and accelerate innovation and entrepreneurship.

Figure 10.1 Strategy Framework to Advance Research and Development, Technology, and Innovation



To intensify the Research and Development (R&D) activities, the following strategies shall be adopted:

Market driven R&D activities intensified

Aggressively increase R&D and STI expenditure. The region's R&D performance in terms of expenditure increased but was still below the ideal target of one percent of the total GRDP. The region also recorded the lowest ratio of R&D expenditure to the GRDP in the country. Thus, R&D programs and projects shall be identified and ensured that these projects will be given budget allocation for implementation. The region shall increase R&D and STI expenditure with focus on basic research and knowledge creation and innovation and ensure alignment of programs and projects with the relative to MIMAROPA Research and Development (R&D) Agenda (MRDA) to ensure regional thrusts and demand are met. Agencies with research mandate may include in their work program several activities related to investments in human resource development and R&D activities, supportive to the implementation of R&D Science for Change Programs and innovation-related laws and policies, and aligned with NIASD and PAGTANAW 2050

in R&D and STI promotion. Region's stakeholders shall be encouraged to submit and implement more proposals under the Innovation Fund that will spur innovation and research activities. The RRDIC will play an important role in the implementation of these activities, being the region's primary committee on ensuring R&D and STI developments alignment to socio-economic thrusts of the region. It is also important to provide a better R&D environment. The Commission on Higher Education in partnership with the SUCs may also opt to re-engineer basic, technical-vocational and higher education to encourage more enrollees and produce capacitated manpower that may respond to R&D and innovative needs of the region.

Providing a nurturing and supportive environment for R&D is also important to prevent migration or "Brain Drain" of R&D personnel. One reason for brain drain is that better R&D environment and culture are present in other countries or regions which attracts local scientists, researchers, engineers, and personnel. To address this, incentives to R&D personnel such as Science for Change Program-RDLead and the Balik Scientist Program should be promoted and strengthened. Tie-up with Filipino scientists based abroad shall also be explored.

Create/improve database on R&D and technology.

The establishment of STI database provides a better understanding of the region's STI landscape. The database shall provide stakeholders from the public, private, and academe with much needed information regarding R&D and technology outputs that may be easily accessed for commercialization, adoption, and market study and decision making analytics. Included in the database may be information on market or user information system with market and consumer analytics. As observed, surveys on R&D data are available every three years with three years lag time. This makes the intervention to region's R&D and STI activities a challenge. In the absence of a national and regional harmonized database, the RADIUS developed by DOST-MIMAROPA may be used which can in turn also be provided to the industry and business sector for their use. Also, linkages of the government-academe-industry on R&D and STI information should be strengthened.

Increase number of partnerships for R&D development.

The private sector's role in the promotion of a nurturing a supportive environment for R&D should be recognized. The private sector works hand in hand with the public sector by providing information on the current consumer trends and current market demand, STI related investment opportunities, possible solutions to current socio-economic problems, as well as improving the government- academe-industry linkage. The private sector, on the other hand, may seek the assistance of the government and academe relative to the development of R&D and STI products to improve their productivity through the SETUP. The private sector may also identify priority agenda for R&D development as well as solutions to socio-economic challenges encountered by the region and provide sources of funds from national and local sources and collaborators and other R&D investors. Other renowned educational institutions from other countries and in the Philippines may also be tapped for conduct of forums, trainings, and capacity building on R&D, technology, and innovation as part of knowledge sharing and capacity building programs to promote R&D development with multidisciplinary partners.

Commercialization, adoption, and utilization of R&D and technology improved

Intensify technology transfer, extension, and commercialization of STI products.

Assessment shows the low adoption of technology generated. This may be attributed to the low technology commercialization and due to R&D technology outputs being developed with no identified end-users in mind. Further, IPR application and approval for technologies remain a challenge due to limited resources and capacity needs of R&D personnel on IPR applications. To address these issues, various intervention are recommended such as the tapping of the Department of Science and Technology-Technology Application and Promotion Institute (DOST-TAPI) through the DOST-MIMAROPA for the commercialization of developed R&D and STI outputs. The region through the RRDIC and its member SUCs may also continue to conduct fora and technology pitching activities on R&D products and technologies developed to encourage interactions with private sector investors.

Provide assistance and incentives to IP application and management for R&D and technology personnel.

There is a need for continuous capacity building activities for R&D and technology personnel in terms of IPR application and management. The continuous assistance on IPR applications may help improve the innovation ecosystem of the region especially on IPR application, patent searching, and management of R&D personnel that may boost R&D and STI activities. The regions' innovation champions may coordinate with the Intellectual Property Office of the Philippines (IPOPHIL) as well as DOST-TAPI for assistance and trainings on IP applications and management.

Strengthen provincial S&T offices. The Provincial Science and Technology Offices are expected to lead the development of R&D and STI ecosystem in their respective provinces and ensure the implementation of R&D programs and projects.

Among the requirements, the Provincial S&T Offices must be made more accessible, their capacities strengthened, and enabled to identify the developmental needs of their provinces and potential partners in R&D activities. The provincial S&T offices may institute alliance and identify R&D champions to improve linkages with the academe and the primary industry in the community especially in rural and geographically isolated and disadvantaged areas in the region. Enhancing the Capacity building for S&T offices shall be prioritized.

Innovation and entrepreneurship accelerated

Accelerate business mentoring and scientific technical assistance. To ensure sustainability, increase capacity, and improve productivity of startups in the region, partnerships with international, local firms or corporations, and government agencies may be established for coaching and mentoring programs on business operations. Various government programs such as the Kapatid Mentor Micro Enterprise may (KMME) of the Department of Trade and Industry and the Innovations for Filipinos Working Distantly from the Philippines (iFWD PH) of DOST offers assistance and business mentoring interventions. Also, international and local activities such as participation to national and local exhibits and expos where researchers and technology generators can showcase their products should be encouraged. Such activities pave the way for researchers and technology generators to access international and local markets and investors. Further, the participation of R&D and STI personnel as well as the government and the academe in the national and MIMAROPA regional science and technology week provides a venue for

stakeholders to participate in technology forums, launchings, technology pitching, and recognitions.

Accelerate the Implementation of the Philippine Innovation Act or RA 11293. The Philippine Innovation Act states the formulation of the NIASD. The document shall serve as a guide to spur the achievement of the country's innovation goals. NIASD contains strategies and plans to improve the country's innovation ecosystem. In order to achieve the goals set in the NIASD, stakeholder participation from the national and regional level shall be recognized. The NIC, RRDIC, and the private sector may work together in monitoring the implementation of the NIASD thereby strengthening government-academe-industry linkage in the process. The MIMAROPA Regional Research Agenda shall also be harmonized with the NIASD to ensure national and regional development.

Promote and increase the number of established innovation hubs and other similar collaborative platforms in the region. Technology Business Incubators (TBIs) are valuable partners for R&D and STI development. TBIs provide venues for technology commercialization, mentoring and partnerships, and promote investment and grants. Currently two TBIs are present in the region and are located in Palawan. In addition to the identified TBIs, the region's state universities and colleges undertake various efforts to strengthen innovation, value-adding, and agri-industry development through the innovation centers and knowledge hubs.

Relatively, the establishment of Regional Inclusive Innovation Centers (RIICs) in the region should be prioritized. The RIICs play a big role in commercializing market-oriented R&D and promoting local innovation ecosystems. (refer to Chapter 8: Revitalize Industry)

Legislative Agenda

Table 10.2 Legislative Agenda to Advance Research and Development, Technology, and Innovation

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Promoting the Development of the Bamboo Industry by Strengthening the Philippine Bamboo Industry Development Council, Creating the Bamboo Industry Research and Development Center, Providing Incentives for Bamboo Plantation Development, and Appropriating Funds Therefore	The bill seeks to promote the development of the Philippine bamboo industry through policies and programs that promote the planting of bamboo and accelerate the development of bamboo-based designs and products. It proposes the creation of a Bamboo Industry Research and Development Center, which is tasked to ensure the effective implementation of the goals and objectives of the measure through research and development; and trade and propagation promotion, education, and capacity-building initiatives for farmers, processors, designers, and other stakeholders in the bamboo industry, among others. In the province of Marinduque, bamboo industry is considered as one of their priority industries for development. In previous years, the LGU of Marinduque in partnership with government agencies and MSC, has studied how bamboo may help in the improvement of the environmental status of the province and the region. There were also identified areas for bamboo plantation in the municipality of Gloria, Oriental Mindoro.	DENR, DTI, DOST
Amending Section 177 and Section 216 of Republic Act No. 8293, Otherwise Known as the Intellectual Property Code of the Philippines, as Amended by Republic Act No. 10372, and for Other Purposes	The bill seeks to amend the following sections of the IP Code: (a) Section 177 to consider rampant digital reproduction of copyrightable works; and (b) Section 216 of the IP Code, as amended, to address increasing concerns on secondary liability and online copyright infringement issues, such as those related to P2P networks and ISPs. This bill considers the privileges of copyright owners to prevent others from copying, uploading, scanning, digitizing, or distributing their creative work. The bill may also consider digitalizing patent applications in order to streamline and improve IPR filing, applications, and granting. The region may continue to tap DOST-TAPI and IPOPHIL in the management of intellectual property.	IPOPHIL



11

**Promote Trade and
Investments**

PROMOTE TRADE AND INVESTMENTS

This chapter aims to promote trade and investments in the region to regain a high-growth path in developing a prosperous, inclusive and resilient economy.

By 2028, the following subsector outcomes will be achieved: (a) export sectors strengthened, and (b) investments in priority industries increased. This chapter assesses the performance of trade and investments, identifies key challenges that constrain development and lays down strategies to address the challenges and achieve expanded economic opportunities.

Assessment and Challenges

In the next six years, trade and investments will be important contributors to the regional economy. However, unified efforts from the public and private sectors to address the challenges in promoting trade and investments shall be done in order to maximize its potential in terms of creating jobs, developing skills, and reducing poverty.

Trade of Goods and Services

Trade of goods and services has been one of the biggest contributors to the MIMAROPA economy but was also adversely impacted by COVID-19 pandemic. The region posted a foreign trade deficit of Php 20 billion from 2017-2021.

Exports. From 2017-2021, MIMAROPA's exports of goods and services reached to Php 326.72 billion – Php 110.53 billion for goods and Php 216.19 billion for services. This generated an average share of .013 percent of the total country's exports of goods and services of P 26 trillion.

Per the Philippine Statistics Authority, The share of the top five export partners to the total export goods of the region in 2021 are as follows: (i) People's Republic of China, 38.21 percent; (ii) Thailand, 34.79 percent; (iii) Republic of Korea, 14.66 percent; (iv) Japan, 8.16 percent, and (v) Brunei Darussalam, 4.19

percent. In the past years, Philippines has established strong trade relations with neighboring Asian countries and other Western countries like United States of America, United Kingdom of Great Britain, Netherlands, Germany, Austria, Canada, Spain, France, Australia, and Ireland.

The distribution of exports products as of 2021 are: (i) nickel ores and concentrates, 45.84 percent; (ii) condensates, 39.60 percent; (iii) crude petroleum oils, 11.58 percent; (iv) coconut milk, 1.20 percent; (v) coconut water concentrates, 0.95 percent; (vi) coconut water, other than concentrates, 0.48 percent; (vii) coconut water-based drinks, 0.31 percent; (viii) vegetable saps and extracts, 0.02 percent; (ix) coconut (copra oil), virgin coconut oil, 0.02 percent; and (x) other appliances.

Port of origin for MIMAROPA export is the Sub-Port of Puerto Princesa in Palawan.

Imports. From 2017-2021, MIMAROPA's imports of goods and services reached Php 346.72 billion – Php 309.03 billion for goods and Php 37.68 billion for services. This generated an average share of 0.011 percent of the total country's imports of goods and services of Php 28.90 trillion.

MIMAROPA's top five import partners and share to the import goods are: (i) Japan, 8.16 percent, 44.55 percent; (ii) Indonesia, 30.51 percent; (iii) Republic of Korea, 8.41 percent; (iv) Vietnam, 8.29 percent, and (v) Republic of China, 8.24 percent as of 2021 trading activities. The Philippines has established trade relations with the following European countries e.g. United Kingdom of Great Britain,

Jordan, United States of America, Netherlands, Italy, India, Germany, Israel, Finland, Canada, Spain, Argentina, Switzerland, United Arab Emirates, New Zealand, and Austria.

The distribution of imports products as of 2021 are: (i) sulphuric acid, oleum, others, 33.38 percent; (ii) coal, bituminous coal, 23.87 percent; (iii) coal and other coal, 8.70 percent; (iv) Portland cement, 7.35 percent; (v) sulphur of all kinds, 5.99 percent; (vi) others, 5.72 percent; (vii) saturated monohydric alcohols, 4.16 percent; (viii) petroleum coke, 4.11 percent; (ix) dumpers designed for off-highway use, 3.64 percent; and (x) bulldozers and angledozers, 3.07 percent.

Ports of origin for MIMAROPA import are the Sub-Port of Puerto Princesa, Brooke's Point Agro Industrial Economic Zone, and Rio Tuba Export Processing Zone in Palawan.

Among the identified challenges of trading activities in the region include: (i) Urgent need to bounce back from the impact of COVID-19 pandemic and Ukraine-Russia conflict; (ii) Physical trade barriers and inadequate link of remote towns and municipalities to the economic clusters; (iii) Only Palawan has international ports, thus it is the only MIMAROPA province with recorded trading activities; and (iv) Compliance to trade requirements e.g., standards and certifications.

Investments

From 2017-2021, the total approved foreign investments (FIs) in the region reached Php 2.48

billion at an average growth rate of 79.9 percent which comprised an average 0.3 percent of the country's total approved FIs. During the said period, the region's highest approved FIs was recorded in 2018 amounting to P 1 billion. The highest growth rate was 562.7 percent which was recorded from 2020-2021 meanwhile the region's approved FIs with biggest share to the total FIs reached to 0.9 percent in 2017.

The total approved investments of foreign and Filipino nationals from 2017-2021 reached P 18.96 billion at an average growth rate of -10.1 percent which comprised an average .3 percent of the country's total approved investments of foreign and Filipino nationals. During the said period, the region's highest approved investments of foreign and Filipino nationals was P 5.53 billion, recorded in 2019. It was also in 2019 that the highest growth rate of 55.6 percent was recorded. The region's biggest total share to the country's total approved investments of foreign and Filipino nationals from 2017-2021 was 0.4 percent which was recorded in 2017, 2019 and 2020.

Among the identified challenges in promoting investments are the following: (i) Urgent need to bounce back from the impact of COVID-19 pandemic and Ukraine-Russia conflict; (ii) Insufficient support facilities (power, water, internet); (iii) Physical trade barriers and inadequate link of remote towns and municipalities to the economic clusters; (iv) Limited data on areas for investments; (v) Minimal investments in manufacturing and processing; and (vi) Need to encourage foreign direct investments to address the development needs and gaps in the region.

Targets

Table 11.1 Indicator Matrix

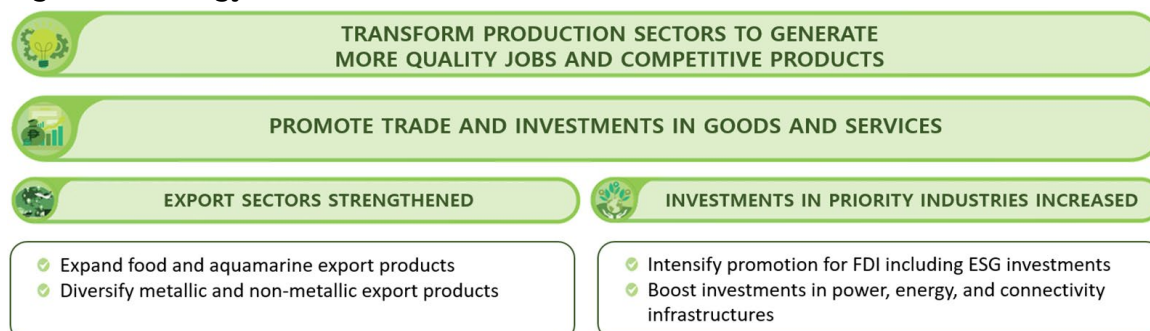
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028	
Exports Sector Strengthened									
Merchandise exports increased (%)	2021	21.60%	10-11%	10-11%	10-11%	10-11%	10-11%	10-11%	PSA
Services exports increased (%)	2021	-7.10%	5-6%	5-6%	5-6%	5-6%	5-6%	5-6%	PSA
Investments in priority industries increased									
Total approved investments increased (%)	2021	-55.55%	12%	12%	12%	13%	13%	11%	PSA
Foreign Direct Investments increased (%)	2021	11.50%	10-11%	10-11%	10-11%	10-11%	10-11%	10-11%	PSA

Source: PSA MIMAROPA

Strategies

Given the abovementioned challenges, there is a need to promote trade and investments in goods and services to generate more quality jobs and competitive products. The desired outcome is to strengthen the export sectors and increase investments in priority industries. To do this, the following strategies shall be implemented:

Figure 11.1 Strategy Framework to Promote Trade and Investments



Export sectors strengthened

Export sectors will be strengthened by undertaking the following strategies:

Expand food and aquamarine export products. Agriculture is one of the growth drivers of MIMAROPA region. The region is the biggest producer of cashew, coconut leaves, calamansi, calumpit, and arrowroot in the country. It is also one of the top producers of onion, garlic, avocado, black pepper, greater yam/ubi, talinum, red beans, mustard, camansi, kinchay, grapes, sineguelas, breadfruit, atis,

dracaena, mayana, nipa leaves, yellow bell, lagundi, dahlia, ginseng, African palm leaves, pineapple fiber, sesame, guinea grass, sampaguita, ilang-ilang, carnation, banana leaves, tiger grass, and kaong (kernel). Despite these agricultural resources, there were no approved foreign investments for AFF recorded in the region since 2015 while its share on the country's agricultural exports remains insignificant.

Agricultural exports of the region were limited to coconut i.e. coconut milk, coconut water concentrates, coconut water-based drinks, coconut (copra oil), and virgin coconut oil. There is a need to increase the number of food and aquamarine export

products in the region by encouraging value-adding or processing. Initially, the processing of seaweeds, cacao, coffee, coconut, rubber, cashew, soft-shelled crabs, into high-demand food products and fruits into jams, shall be explored. Exports of fisheries may be strengthened by ensuring that fishery products have met the international best practice for sustainable fishing.

The link between export growth and countryside development must be strengthened through policies to boost rural and farm-based entrepreneurship in identified geographic economic growth areas of the region.

Diversify metallic and non-metallic export products. The overall mineral production and value in the region for metallic increased as influenced by the global market prices. The top two major export products in the region are: nickel ores and concentrates, and condensates. Rio Tuba Nickel Mining Corporation in Bataraza, Palawan is one of the three companies in the Philippines in nickel mining and ranks third among the major suppliers of nickel ores to Japan. Upon extraction, these unprocessed minerals are directly exported to People's Republic of China and Japan and they are benefitting since they have the technology. Thus, there is a need for processing facilities to add value to our produce and make it a competitive export product.

There is a recorded decrease in performance of non-metallic products i.e. limestone, milk of lime, hydrated lime and sand and gravel which can be attributed to the demands on its production. Thus, there is a need to diversify non-metallic products by encouraging value-adding to become export products. Romblon has a large deposit of marble which are usually made into key chains, mortar and pestle, headstone marker, and construction aggregate. Marble can be considered for further researches as it is one of the potential export products.

Investments in priority industries increased

Intensify promotion to attract Foreign Direct Investment (FDI) including Environment, Social and Governance (ESG) investments. With the DTT's Make it Happen in the Philippines campaign, the country is fostering a new business climate which make it truly open for investments. For MIMAROPA, there is a need to integrate all promotion and

facilitation efforts to encourage foreign investments, especially for the local government units. The LGUs must be able to update their comprehensive land use plans, local investment code/policies, mainstream public-private partnership, prepare profiles of proposed investment areas and sector, and strengthen business facilitation and licensing. Those areas are critical to make their respective cities/municipalities/provinces investment-ready and investor-friendly. LGUs may explore to leverage the presence of growth opportunities especially in rural and countryside areas.

The Local Economic Development and Investment Promotion Offices in all LGUs (province, cities, and municipalities) need to be institutionalized to facilitate and coordinate local economic development and investment promotion advocacies, policies, programs, projects and activities. Priority shall be given to the following:

- Establishment of manufacturing/repair facility for shipping/marine vessels;
- Military facility co-location;
- Promotion of export products; and
- Establishment of Economic zones and free ports.

MIMAROPA is also seen as a region that could offer ESG investment opportunities, specifically in the areas of reforestation combined with food security and sustainable livelihood for buffer communities. Though the Philippines does not have a carbon pricing instrument yet, studies have been conducted in coordination with the World Bank. Malampaya Foundation, Inc. (MFI) was awarded 2022 Best ESG Campaign or Case Study to Prevent or Reduce Marine Pollution as it showcases the best ESG performance in line with the UN's 17 Sustainable Development Goals (SDGs). MFI and its partners implement grassroots-based information-education campaigns as part of its program framework to educate partner communities and stakeholders, especially the youth, to attain long-term conservation goals.

To make the region a prime destination of ESG investments, there shall be an established ESG Investments Task Force composed of the public sector (e.g., NEDA, DENR, DTI-BOI, DOF, DSWD, DILG, DOE, CCC, and PhilSA), private sector, academe, and other social partners in order to spearhead the work in building transparent and credible Standards and Certification schemes by stimulating dynamic institutional entrepreneurship in this arena.

Boost investments in power, energy, and connectivity infrastructures in order to overcome the challenges to make the region investment-ready. (See discussion in Chapter 13: Expand and Upgrade Infrastructure).

Among the investments to be prioritized are:

- Renewable energy generation plants in MIMAROPA provinces (wind, hydro, and underwater current)
- Gas and oil exploration in Western Philippine Sea
- Development/installation of water treatment facilities/equipment
- Source development for distribution or for bulk water supply
- Waste to Energy Facility
- Carbon trading

The inclusion of the Province of Palawan in the Brunei Darussalam, Indonesia, Malaysia, East Asean Growth Area (BIMP-EAGA), a subregional cooperation founded in 1994, to spur business activities, investment, and trading within the economic area is an opportunity for investments. BIMP-EAGA has five pillars of development: connectivity, food basket, environment and tourism, as well as sociocultural and education. Identified projects include

establishment of new air and sea links, cross-border power interconnection and renewable-energy development, agribusiness development, better trade-facilitation arrangements, sociocultural exchanges, eco-tourism and green-cities development, among others.

Palawan is included in the Greater Sulu-Sulawesi Economic Corridor, a maritime corridor, which include North Sulawesi in Indonesia, Sabah in Malaysia, and the Mindanao island group and Palawan of Philippines. One of the established routes is Buliluyan, Palawan-Kudat, Malaysia roll-on, roll-off (Roro) cargo-shipping route. This route encourages trading and commerce among these countries.

The presence of large agricultural area, pristine tourism areas, and rich cultural resources of Palawan is an opportune for investments, tourism, and sustainable resource development for the Province of Palawan. These resources support most of the development pillars of the BIMP-EAGA. In particular, Tubbataha Reefs Natural Park is identified for sustainable fishery conservation.

Legislative Agenda

For the Plan period, the following legislative agenda will be pursued:

Table 11.2 Legislative Agenda to Promote Trade and Investments

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Urgent ratification of the Regional Comprehensive Economic Partnership (RCEP) Agreement	Joining the RCEP will be beneficial to the Philippines to enhance its market access and investments. With Palawan's inclusion in the BIMP-EAGA, the region can directly benefit from the RCEP agreement which is expected to increase competitiveness and strengthen production networks globally, promote regional supply chains through better market access for goods and services, reduce or remove trade barriers, and enhance technology transfer. ASEAN is expected to become the hub of production networks in Asia once the trade agreement is fully implemented.	DTI
Export and Industry Development Act	As export-driven growth remains an economic model which developing regions have tried to emulate, MIMAROPA has attempted to boost its export performance as a pillar for pursuing economic growth and development. Amendments to the law will provide targeted and strategic policy, program, and project support, including non-fiscal incentives, for the development of local industries towards export competitiveness. Most of the provisions of the Export Development Act has lapsed already.	DTI

PART IV

Enabling Environment

12

**Ensure Macroeconomic
Stability**



ENSURE MACROECONOMIC STABILITY

The MIMAROPA Region envisions itself to be the “Destination of Choice”, wherein its people thrive and the region is a place preferred for investments, livelihood, residence, employment, adventure, rest and recreation, and retirement. This could only be possible if it has a strong and vibrant economy and favorable environment for it to flourish. However, recent global and local events affected its economic growth negatively. As such, the region pushes for economic transformation through ensuring macroeconomic stability and expanding inclusive and innovative finance consistent with the Philippine Development Plan 2023-2028, the MIMAROPA RDP outlines the region’s current economic condition and provides for strategies to strengthen and ensure its stability to withstand shocks and downturns.

Subchapter 12.1 Promote an Innovative, Inclusive, and Healthy Financial Sector

The MIMAROPA region recorded its highest gross regional domestic product (GRDP) in 2019 with Php386.78 billion. This, however, dropped in the succeeding years due to unprecedented multiple and simultaneous health, climate, peace and order, and security crises. As such, recovering from said downturns and strengthening the economy by enabling a stable and supportive economic environment are some of the region’s key priorities. These included the promotion of innovative, inclusive, and healthy financial sector in the following areas: i) banking systems; ii) cooperatives; and iii) microfinance institutions.

Assessment and Challenges

Banking systems in the region remain resilient.

The COVID-19 pandemic posed challenges and opportunities for the banking sector as the implementation of various quarantine restrictions limited movements across markets. However, the banking industry and systems across the country and in the region remained resilient during the pandemic and continued to evolve post-pandemic. This is due to diversification in banking operations, which led to an increase in the use of digital financial technologies (fintech), electronic money transactions, and other mobile-money services to pull alongside increased demand in e-commerce retail trade. Accessibility and convenience are key factors in shifting to digital fintech compared to traditional banking. However, this also resulted in increased risk on cybersecurity

and data privacy issues (e.g., phishing, scams), and challenges in regulating and measuring services and activities involving digital money and e-commerce (e.g., number of clients, accounts, and transactions, and amount of transactions), and among others.

Meanwhile, traditional banking remained as the primary option for various market transactions, as it still offers key services, such as loans and individual and business banking. This is evident in the steady increase in deposit liabilities, loan portfolio, and banks and automated teller machines (ATMs), which are further classified as: i) universal and commercial; ii) thrift; and, iii) rural and cooperative. In 2021, deposit liabilities and loan portfolios in the region increased by Php 110,515.54 million and Php 37,268.54 million, respectively. Said indicators exceeded the 2022 end-of-plan period target of Php 106,251.00 million and Php 34,767.00 million, respectively. However, significant challenges remain in increasing authorized government servicing/

depository banks (AGS/DBs) in the region (Please see Table 12.1).

The diversification of operations among banks and microfinance institutions, particularly in adopting digital financial technologies, shall be supported and regulated. This includes digital banking, electronic money issuers (EMIs), money service businesses (MSBs), and pawnshops. Supporting and regulating said services will eliminate or minimize cybersecurity and data privacy risks and further delineate differences across services.

Businesses, cooperatives, and microfinance services in the region remain strong and stable. Despite moderately improving towards achieving the 2022 end-of-plan target, challenges remain in increasing the number of business establishments in the region. On the other hand, the region's significant gains in developing cooperatives were generally unaffected by the COVID-19 pandemic. Despite business disruptions, the cooperative sector remained resilient and continued to provide services to its members and host communities.

While challenges remain in developing cooperatives, government support, interventions, and internally generated capacities and mechanisms are needed to recover cooperative business capabilities and regain the lost momentum experienced before the pandemic (Cooperative Development Authority, 2020).

Meanwhile, microfinance institutions also exhibited resiliency amidst the pandemic. Immediate response backed by external factors made microfinance institutions more robust and more relevant. Despite exceeding the 2022 end-of-plan period target of less than Php 17.00 million with its Php 15.55 million annual value of outstanding microfinance loans by banks in 2021, challenges remain in attaining pre-pandemic levels of loan portfolio growth, collection efficiency, and scale economies in operations need to be addressed (Taneja, 2021), along with the increase of offered services and diversification of business operations among pawnshops and money-service businesses. Further, access to financial services, particularly for low-income clients and household micro-business enterprises, remains a challenge.

Targets

Table 12.1.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END-OF-PLAN TARGET	MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028			
Number of business establishments increased	2020	22,424	29,190	29,482	29,777	30,074	30,375	30,679	30,679	List of Establishments	DTI MIMAROPA
Number of banks increased	2021	310	364	383	403	424	446	469	469	Banking Statistics Report	BSP
Universal and commercial banks	2021	84	99	104	110	114	121	128	128		BSP
Thrift banks	2021	58	68	72	76	81	85	89	89		BSP
Rural and cooperative banks	2021	168	197	207	217	229	240	252	252		BSP
Number of ATMs increased	2021 (3Q)	351	474	521	574	632	695	765	765		BSP
Universal and commercial bank ATMs	2021 (3Q)	291	393	432	476	524	576	634	634		BSP
Thrift bank ATMs	2021 (3Q)	37	50	55	61	67	74	81	81		BSP

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END-OF-PLAN TARGET	MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028			
Rural and cooperative bank ATMs	2021 [3Q]	23	31	34	37	41	45	50	50		BSP
Number of AGS/ DBs increased	2022 [3Q]	23	25	27	29	31	33	35	35		BSP / BLGF MIMAROPA
Deposit liabilities increased (in million)	2021	₱110,515.54	₱116,986.00	₱128,664.80	₱141,535.70	₱155,689.30	₱171,258.20	₱188,384.00	₱188,384.00		BSP
Loan portfolio increased (in million)	2021	₱37,268.54	₱38,243.70	₱42,068.10	₱46,274.90	₱50,902.40	₱55,992.60	₱61,591.90	₱38,243.70		BSP
Annual value of outstanding microfinance loans by banks (in million)	2021	₱15.55	>₱17.00	>₱17.00	>₱17.00	>₱17.00	>₱17.00	>₱17.00	>₱17.00		BSP
Number of cooperatives increased	2021	1,192	1,200	1,260	1,323	1,389	1,459	1,532	1,532	Cooperative Audited Financial Statements Information System Report	CDA MIMAROPA
Number of compliant cooperatives increased	2021	526	554	582	611	642	674	708	708		CDA MIMAROPA
Total cooperative assets increased (in million)	2021	₱11,694.04	₱18,403.79	₱21,164.36	₱24,339.00	₱27,989.85	₱32,188.44	₱37,016.66	₱37,016.66		CDA MIMAROPA

Sources: 2021 MIMAROPA RDR, Bangko Sentral ng Pilipinas, CDA MIMAROPA

Note: a – Indicated targets are projected using trends from MIMAROPA RDP 2017-2022 RMs

Strategies

Figure 12.1.1 outlines the strategies that shall be pursued to ensure macroeconomic stability and the promotion of innovative, inclusive, and healthy financial sector. Further, it presents the following desired outcomes for the region: i) financial innovation and accelerated and strengthened; and, ii) financial inclusion broadened and deepened.

Figure 12.1.1 Strategy Framework to Promote an Inclusive, Innovative, and Healthy Financial Sector



Financial innovation accelerated and strengthened

Promote and provide funding for innovation and startups. The COVID-19 pandemic accelerated the digital and e-commerce transformation. Global lockdown and quarantine restrictions made consumers go digital, and purchase goods and services online, raising e-commerce's share of retail trade. Said digital and e-commerce transformation continues to grow post-pandemic as traditional businesses and services adopt digital technologies on key transactions such as e-payments and online selling. Further, this trend allows innovation and startups to also flourish.

In view of this, the region shall provide programs and projects, and technical assistance in promoting innovations in business operations and support startups that will take advantage of digital and e-commerce's continued growth, while ensuring legitimacy and regulation of businesses and electronic transactions. These include developing and expanding the following: i) Startup Development Program and Venture Financing Program for Startup and Technology-based Projects; ii) E-commerce

Promotion Project; iii) Financial Education and Literacy Programs; and, iv) adoption of PalengQR PH. The following are identified agencies responsible for implementing this strategy: i) Department of Trade and Industry (DTI) MIMAROPA; ii) Department of Science and Technology (DOST) MIMAROPA; iii) Department of Information and Communications Technology (DICT) MIMAROPA; iv) Bangko Sentral ng Pilipinas (BSP); and v) Department of the Interior and Local Government (DILG) MIMAROPA.

Meanwhile, the private sector may also provide support in providing technical and financial support in developing and expanding innovations and startups in the country.

Strengthen delivery of innovative products and services. Similarly, the government shall also take advantage of the digital transformation brought about by the pandemic. The region shall pursue digitization and digitalization of key processes and procedures, particularly in the following areas: i) development planning, and program and project formulation; ii) financial management; iii) budgeting; iv) administration; and, v) service delivery. This can be further pursued by developing and improving local area networks, within and among agencies and government units. The DICT MIMAROPA will take lead in implementing this strategy.

Financial inclusion broadened and deepened

Improve access to banking and micro-financing services. The region shall also pursue the following: i) financial education and literacy programs; ii) establishment of safe digital payment gateways; iii) promotion of a financially inclusive business; iv) creation of a digital ecosystem within the region involving line agencies and LGUs; and, v) cooperative development program.

The following are identified agencies responsible for implementing this strategy: i) BSP; ii) BLGF MIMAROPA; iii) Department of Finance (DOF); iv) Bureau of Treasury (BTR); and, (v) Securities and Exchange Commission (SEC).

Develop Barangay and Household Micro Business Enterprises. The COVID-19 pandemic highlighted the significance and relevance of microfinance institutions and cooperatives by complementing the relief efforts of the government in alleviating the impacts of the pandemic. In its recovery, the region shall develop and expand grassroots-level

microfinance institutions such as Barangay Micro Business Enterprises (BMBEs) and household MBEs to foster a culture of bottom-up planning, support in-house talent and openness to implementation of technology and new processes, and aptly serve low-income clients (cross reference to Chapters 07 and 08). This will then stimulate local economic activities. DTI MIMAROPA and CDA MIMAROPA will take lead in implementing this strategy.

In 2022, the BSP published the National Strategy for Financial Inclusion (NSFI) 2022-2028. The said strategy serves as a “six-year blueprint to achieve the vision of driving financial inclusion toward broad-based growth and financial resilience” in the country. The Region may use the said strategy to guide the LGUs in facilitating “a coherent, well-coordinated, whole-of-nation undertaking toward the achievement of its vision of inclusive growth and financial resilience for every Filipino”.

Meanwhile, the private sector can contribute to expanding and developing enterprises through aligning their corporate social responsibility initiatives with the need of the region.

Legislative Agenda

The following outlines the legislative action needed to strengthen the effectiveness of the strategies. These include amendments on existing laws or the passing of relevant laws supportive to ensuring macroeconomic stability and lead/responsible agency.

Table 12.1.2 Legislative Agenda to Promote an Inclusive, Innovative, and Healthy Financial Sector

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Passing of Use of Digital Payments Act	The passing of said bill fosters the adoption of safe, affordable, and efficient digital payments in financial transactions with the government, among others. The COVID-19 pandemic accelerated the use of digital financial technologies and advanced the transition to digital payment including government transactions. For an archipelagic region, where conducting key transactions remain a challenge, ensuring safe and efficient digital payment in financial transactions with businesses and with the government is needed.	BSP
Passing of Internet Transactions Act	The passing of said bill allows regulation of business-to-business and business-to-consumer commercial transactions over the internet, including those related to internet retail, online travel services, digital media providers, ride-hailing services, and digital financial services. The COVID-19 pandemic accelerated the use of digital financial technologies and increased demands in e-commerce retail trade. For an archipelagic region, where connectivity remains a challenge and an increase in the adoption of digital payment mechanisms among businesses and retailers, regulating transactions over the internet is a must.	BSP/DICT
Passing of e-Governance Act	The passing of said act mandates the government to establish an integrated, interconnected, interoperable information and resource-sharing and communications network within the bureaucracy. Further, with the passing of the said act, a strong digital ecosystem can be established in the region. This will be beneficial to an archipelagic region like MIMAROPA, as it would reduce transport costs in processing various transactions considering that the MIMAROPA Regional Government Center has yet to be completed.	DICT

Subchapter 12.2 Ensure Sound Fiscal Management and Improve the Tax Regime

The region's economy has been growing steadily prior to the onset of the COVID-19 pandemic. In 2020, the region recorded a -7.9 percent growth rate in its GRDP and has yet to fully recover from the setbacks caused by unprecedented multiple and simultaneous health, climate, peace and order, and security crises. These crises uncovered gaps in government coordination, policymaking, and implementation, which are areas for development.

The government sector played a crucial role in managing the effects of these crises. It initiated “building back better” practices and spearheaded sustainable and resilient recovery efforts to boost economies. To ensure macroeconomic stability, and regain lost momentum and upward trajectory of the economy, the region needs to ensure sound fiscal management and improve its tax regime, particularly in the following areas: i) revenue collection and allotment; ii) expenditure patterns; iii) budget and fund utilization; iv) fiscal management; and v) devolution of functions.

Assessment and Challenges

LGU revenue collection, allotment, and expenditure patterns recorded varying trends.

For several years, the MIMAROPA Region is highly dependent on the national government's internal revenue allotment (IRA). In 2021, the region recorded a seven-percentage point increase or 88 percent from 81 percent in 2020 IRA dependency ratio. However, this ratio decreased slightly to 85% in 2022. Meanwhile, despite exceeding annual targets prior to the pandemic, the government experience significant tax revenue losses. In 2021, the region recorded a -15.76 percent growth or Php 3.18 billion from Php 3.78 billion in 2020 in total actual revenue collection, which includes real property and business taxes, local fees and charges, and receipts from economic enterprises. This may be attributed to businesses and enterprises still recovering from the negative economic impacts of the pandemic despite flexible measures offered in the filing of income tax returns and tax payments. These negative effects of the pandemic on revenue collection and allotment will still be felt during FY 2023-2025 period.

On the other hand, notwithstanding the increased demand for the government to address the impact of the pandemic due to its unprecedented scope and protracted duration, along with natural disasters and calamities, the region recorded a slight decrease (-6.16 percent) in its total expenditure in 2021. This contrasts with the region's increasing total

expenditure trend since FY 2017. However, there is a slight increase in the total current operating expenditure trend vis-à-vis expenditure on social services in 2021 at 26.27 percent from 25.34 percent in 2020.

Devolution of Certain Functions of the Executive Branch to LGUs. On 03 July 2018, the Supreme Court ruled in favor of the petitioners' challenge on the manner in which the just share in the national taxes of the LGUs has been computed. The Supreme Court ruled in the Mandanas-Garcia Ruling that the LGUs' fair share of national taxes comprises collections (custom duties) made by the Bureau of Customs and other collecting agencies in addition to the national internal revenue taxes (NIRT) collected by the Bureau of Internal Revenue. As a measure to mitigate the fiscal impact of the Mandanas-Garcia Ruling, the full devolution of certain functions of the Executive Branch was initiated in accordance with Section 17 of the LGC. Thus, for fiscal sustainability, the devolved functions must permanently be taken out from national agencies and for LGUs to assume them.

On 01 June 2021, former President Rodrigo R. Duterte signed Executive Order No. 138, s. 2021, prescribing full devolution of certain functions of the executive branch to local government. During the second semester of 2021, government line agencies and LGUs underwent various orientations, workshops, and capacity development activities to facilitate the full devolution starting FY 2022.

In line with the full devolution transition efforts, all LGUs in the region have submitted their devolution transition plans (DTPs). However, challenges remain in terms of functions, services, and facilities (FSFs) that provinces have to assume, the following were recorded (as

of 30 September 2022): i) 1,291 fully assumed FSFs; ii) 1,442 partially assumed FSFs; and, iii) 978 yet to assume FSFs. Further, taking into consideration the priority thrusts of newly elected officials may affect the prioritization and implementation of PPAs.

Targets

Table 12.2.1 presents identified indicators and annual targets to be monitored, which support the macroeconomic sector's achievement and sub-chapter outcomes.

Table 12.2.1 Indicator Matrix

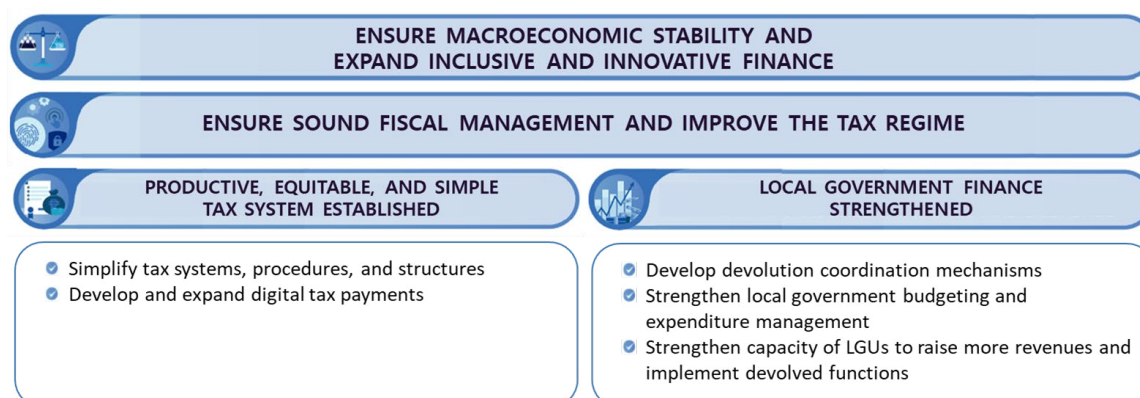
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END-OF-PLAN TARGET	MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028			
IRA dependency rate decreased	2022	85%	85.00%	84.50%	84.00%	83.50%	83.00%	82.50%	82.50%	Statement of Receipts and Expenditure Reports	BLGF MIMAROPA
Total actual revenue increased (in million)	2021	₱3,184.85	₱3,344.09	₱3,511.30	₱3,686.87	₱3,871.21	₱4,064.77	₱4,271.16	₱4,271.16		
Real property tax increased (in million)	2021	₱589.47	₱782.99	₱822.14	₱863.25	₱906.41	₱951.73	₱999.32	₱999.32		
Business tax increased (in million)	2021	₱1,129.63	₱ 926.32	₱972.64	₱1,021.27	₱1,072.33	₱1,125.95	₱1,182.25	₱1,182.25		
Fees and charges increased (in million)	2021	₱1,013.33	₱1,064	₱1,117.2	₱1,173.06	₱1,231.71	₱1,293.30	₱1,375.97	₱1,375.97		
100% collection efficiency rate maintained	2022	100%	100%	100%	100%	100%	100%	100%	100%		
Receipts from Economic enterprise increased (in million)	2021	₱452.42	₱475.04	₱498.79	₱523.73	₱549.92	₱577.42	₱606.29	₱606.29		
Ratio of local source of LGU income to total current operating income maintained above baseline	2022	11.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%		
Year-on-year growth in social and economic service expenditure [of LGUs] maintained above baseline	2022	25%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%		
Percentage growth in locally-sourced LGU-income improved	2022	15%	15%	15%	15%	15%	15%	15%	15%		
Number of LGUs assessed on revenue and assessment performance maintained	2022	47 LGUs in the region	47 (treasury offices)	47 (treasury offices)	47 (treasury offices)	47 (treasury offices)	47 (treasury offices)	47 (treasury offices)	47 (treasury offices)		
			47 (assessor offices)	47 (assessor offices)	47 (assessor offices)	47 (assessor offices)	47 (assessor offices)	47 (assessor offices)	47 (assessor offices)		

Source: BLGF MIMAROPA

Strategies

Figure 12.2.1 outlines the strategies that shall be pursued to ensure macroeconomic stability through ensuring sound fiscal management and improving the tax regime. Further, it presents the following desired outcomes for the region: i) a productive, equitable, and simple tax system and ii) stronger local government finance.

Figure 12.2.1 Strategy Framework to Ensure Sound Fiscal Management and Improve the Tax Regime



Productive, equitable, and simple tax system established and other sources of revenue mobilized

Simplify tax systems, procedures, and structures.

The COVID-19 pandemic disrupted social and economic activities and the delivery of public goods and services. The pandemic also showed vulnerabilities in areas vital to the continued operation of critical social institutions, such as government and business transactions, as it limited the movements among transacting public. This resulted negatively in the performance of the economy. While various measures were implemented to mitigate the impact of the pandemic, the need to revisit, update, and strictly implement tax codes (e.g., local revenue codes) must be addressed by adopting new, improved, and efficient practices and developing local revenue sources and collection strategies.

Further, there is a need to capacitate LGU officials (e.g., treasurers, assessors, technical staff, Sangguniang Bayan Members, and local chief executives) on resource mobilization and inter-agency coordination

to ensure proper implementation of DILG-DOF JMC 2019-001, which provides guidelines in setting reasonable rates for regulatory fees and other service charges imposed by LGUs through the issuance of a Local Fees and Charges (LFC) toolkit.

Develop and expand digital tax payments. Similarly, the pandemic accelerated digital and e-commerce technology, which pushed the transacting public to go digital. As such, the need to integrate digital and financial technologies and automating critical processes in tax collection must be ensured. EO 170, s. 2022, which prescribed the adoption of digital payments for government disbursements and collections shall serve as a starting point, among other relevant laws and issuances.

Given this, the region shall pursue the following: i) update general revisions and implement local revenue codes; ii) implement the Comprehensive Rapid Land Tenure Appraisal (RLTA) Program; iii) digitization and digitalization of tax mapping systems; iv) enhance or develop electronic tax payment system in LGUs; and, v) efficient implementation of Electronic Business One Stop Shop (BOSS).

Strengthen capacity of LGUs to raise more revenues and implement devolved functions. IRA dependency among provinces in the region remains

high. As such, LGUs must improve local resource generation through the improvement, development, or establishment of local economic enterprises. Developing and enhancing tax revenue collection efficiency mechanisms in local or internal income sources must also be explored. Increased revenue collections aid LGUs in funding special-purpose appropriation programs and local priorities, which includes FSFs devolved from NGAs.

Local government finance strengthened

Strengthen the capacity of LGUs to implement devolved functions and develop a devolution coordination mechanism. The implementation of the EO 138, s. 2021 and the transition period for the devolution of functions coincide with the first half of the Plan (2023-2025). With the increase in NTA, LGUs are expected to have the capacity to act effectively and efficiently allocate resources through careful planning. The importance of having a comprehensive DTP is germane to the successful

transition and assumption of FSF in the LGUs. The utilization of DILG's capacity development analytics provides necessary guidance and reference among national and regional line-agencies in the provision of capacity development interventions for LGUs.

Strengthen local government budgeting and expenditure management. Likewise, with the increased NTA and local revenue sources, LGUs must efficiently spend funds allocated to local priorities. With improved planning, and program and project formulation, LGUs must correctly identify national-regional-local development priorities. Subsequently, timely reporting and submission of budget and expenditure reports should be warranted.

In view of this, the region shall pursue the following: i) efficient rollout of the Capacity Development Analytics in the LGUs; ii) monitoring and evaluation of the transition and assumption of FSFs in LGUs; iii) develop efficient budgeting and expenditure management systems and processes; and, iv) digitization and digitalization of budgeting and expenditure management processes.

Legislative Agenda

The following outlines the legislative action needed to strengthen the effectiveness of the strategies. These include amendments to existing laws or the passing of relevant laws supportive of ensuring macroeconomic stability and lead/responsible agency.

Table 12.2.2 Legislative Agenda to Ensure Sound Fiscal Management and Improve the Tax Regime

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Passing of Real Property Valuation and Assessment Reform Act	"The Valuation Reform Act, under Senate Bill No. 1473 and House Bill No. 8453, seeks to implement crucial changes to support the growth of a just, equitable, and effective real property valuation system. LGUs in the MIMAROPA region are still highly IRA-dependent. Further, RPT collection in the past two years was affected by the COVID-19 pandemic. Thus, the passing of the VRA will aid LGUs in creating strategies and mechanisms to effectively and efficiently evaluate real properties."	DOF
Passing of Use of Digital Payments Act	"The passing of this bill fosters the adoption of safe, affordable, and efficient digital payments in financial transactions with the government. The COVID-19 pandemic accelerated the use of digital financial technologies and advanced the transition to digital payment including government transactions. For an archipelagic region, where conducting key transactions remain a challenge, ensuring safe and efficient digital payment in financial transactions with businesses and with the government is needed. "	BSP
Passing of e-Governance Act.	"The passing of this bill will mandate the government to establish an integrated, interconnected, and interoperable information, resource-sharing, and communications network within the bureaucracy. Further, with this law, a strong digital ecosystem can be established in the region. This will be beneficial to an archipelagic region like MIMAROPA, as it would reduce transport costs in processing various transactions considering that the MIMAROPA Regional Government Center has yet to be completed."	DICT
Salary Standardization Law VI	"The scope of the Salary Standardization Law of 2019 is only effective until FY 2023. sdf As such, filing, subsequently passing, of an act modifying the salary schedule for civilian government personnel and granting additional benefits effective 2024 and onwards must be guaranteed. Enacting legislative measures to increase the salary of all civilian personnel allows compensation to be competitive and comparable with the private sector."	DOF/DBM

13

**Expand and Upgrade
Infrastructure**



EXPAND AND UPGRADE INFRASTRUCTURE

Expanding and upgrading Infrastructure will help ensure that the goals of bringing down the poverty rate to a single-digit within the six-year period of the Regional Development Plan 2023-2028 will become a reality, and ultimately contribute to elevating the country's status as an upper-middle income economy. The Build Better More (BBM) infrastructure development in the MIMAROPA region for the next six years means expanding and upgrading existing basic physical system that is vital to its economic development and prosperity. It is divided broadly into four sub-sectors namely: (1) Connectivity, (2) Water Resources, (3) Energy, and (4) Social Infrastructure.

The hard visible infrastructure like roads, bridges, electricity, water supply, and telecommunications need to be complemented with soft components such as policies and regulations, to enable the whole system to work efficiently and produce positive results to the economy. These are contained in the region's infrastructure sector's legislative agenda, which include among others, the amendment of Republic Act No. 9136 or the Electric Power Industry Reform Act (EPIRA) of 2001, establishment of the Department of Water Resources, and region-specific legislations like the passage of Aerodrome Safety Ordinances in all MIMAROPA municipalities and cities hosting or near airports.

Infrastructure investments in the four infrastructure sub-sectors will have to be strongly pursued to respond to the increasing needs of population, rapid urbanization, and emergence of growth centers in the MIMAROPA region. These priority investments are captured in the major PPAs contained in the Regional Development Investment Program 2023-2028.

Assessment and Challenges

Connectivity

Land Transportation. Upgrading, expansion, and adequate maintenance of the National Road network is continuously pursued by the government. As of October 2021, paved national roads (secondary and tertiary) reached 99.13 percent or 2,277.80 kilometers out of 2,297.71 kilometers total in the region. This is 16.08 percentage points higher than the 83.05 percent paved roads in 2016.

The road density (ratio of length of the region's national road network to the region's land area) is unchanged at 7.76 from 2016 to 2021.

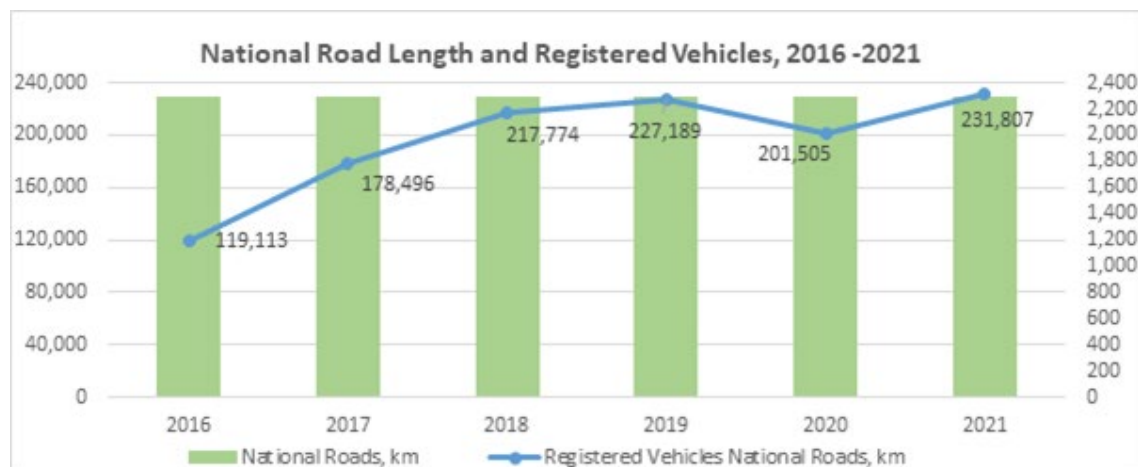
Palawan has the longest length of paved national road with 1,024.46 kilometers, followed by Occidental Mindoro with 418.04 kilometers,

Oriental Mindoro with 329.81 kilometers, and Romblon with 305.82 kilometers. Marinduque has the shortest length of paved national road with 199.67 kilometers.

The permanent bridges in the region have a total length of 22,224 linear meters in 2021 compared to 21,097 linear meters in 2016. Palawan has the longest length of permanent bridges along national arterial road with 8,691 linear meters, followed by Occidental Mindoro with 6,289 linear meters, Oriental Mindoro with 3,487 linear meters, and Romblon with 2,878 linear meters. Marinduque, has the shortest length of permanent bridges along national road with 1,628 linear meters. The total length of bridges in the region reached 23,370 linear meters in 2021.

Figure 13.1 shows that the total length of National Roads in the region has not changed since 2016, while the number of registered vehicles increased by 94.61 percent over the same period. DPWH and the local government units have been rehabilitating and upgrading national and local roads to increase.

Figure 13.1 Length of National Roads and Number of Registered Vehicles, MIMAROPA, 2016-2021



Source: DPWH RBIA, LTO Annual Report

Congestion in major thoroughfares were mitigated through the construction of diversion and by-pass roads, and the widening of strategic road sections.

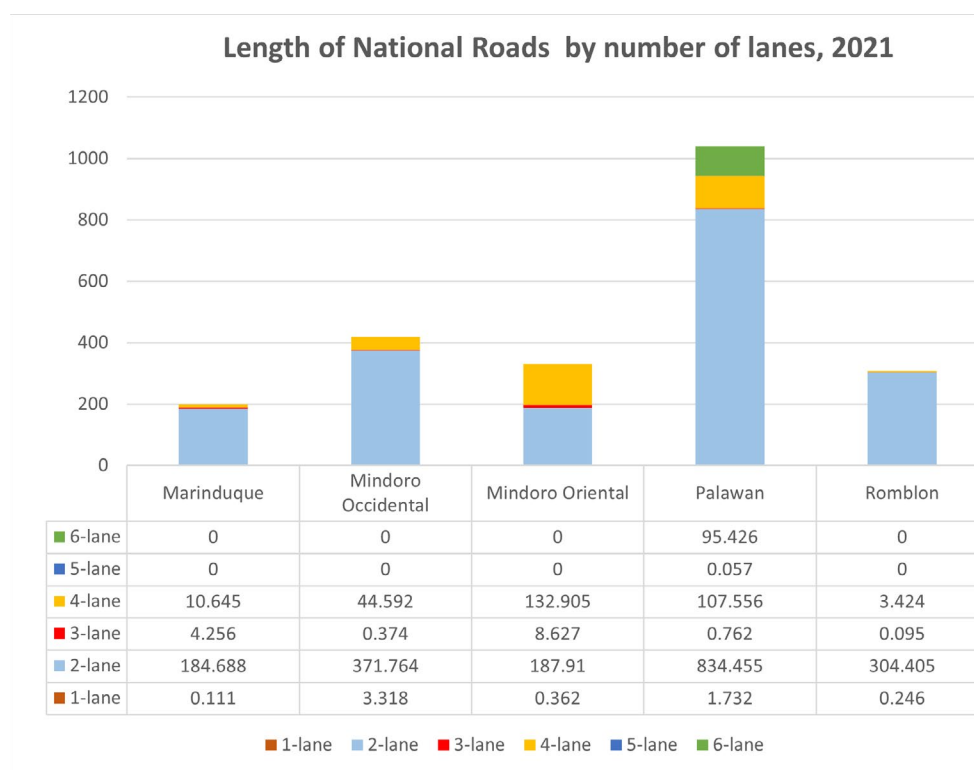
While the length of national roads remain unchanged in the past six years, at least 408.719 kilometers or 17.79 percent of national roads have three or more lanes. The province of Oriental Mindoro has the highest percentage of 4-lane roads with 40.3 percent

while Romblon has the smallest percentage of 4-lane roads with 1.11 percent.

Figure 13.2 shows that all provinces in the region has 4-lane roads except for the province of Palawan which has 95.426 kilometers of 6-lane roads.

The region has a total of 5,583.88 lane-kilometers of national roads as of December 2021.

Figure 13.2 Length of National Roads by number of lanes



Source: DPWH RBIA, LTO Annual Report

Completion of strategic connections such as the Mindoro Island Circumferential Road (MICR), Mindoro Cross Island Road (MCIR), Odiongan East-West Road, Dr. Damian Reyes Road, Palawan Circumferential Road, and various bypass/diversion roads are currently being implemented by DPWH.

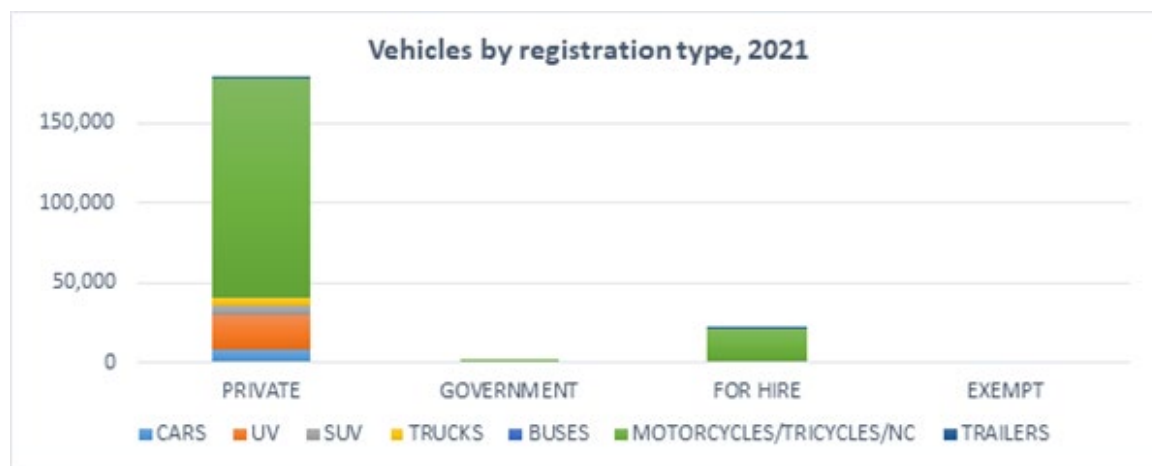
Motorcycles continue to be the most prevalent transport vehicle in 2021 accounting for 78.49 percent of the total registered vehicles in the region.

This is 3.98 percentage points higher than the 74.51 percent share of motorcycles in 2016.

Public transportation system in the region is an area for development. Thus, the riding public relies heavily on private transportation (e.g., motorcycles/tricycles) for mobility.

Figure 13.3 shows the distribution of registered vehicles by vehicle type and registration classification.

Figure 13.3 Distribution of Registered Vehicles by Vehicle Type and Registration Classification, MIMAROPA, 2021



Source: DPWH RBIA, LTO Annual Report

The Public Utility Vehicle Modernization Program (PUVMP) requires the LGUs to prepare and submit their respective Local Public Transport Route Plan (LPTRP) to efficiently serve the demand for movement of passengers and goods to, from, and within the centers of socioeconomic activities.

As of mid-2022, only 53 of 78 LGUs have submitted their LPTRPs. Of these, 10 LPTRPs are still under evaluation, 30 LPTRPs are for revision, while only 13 LPTRPs are approved.

Of the approved LPTRPs, only six have been issued with Memorandum Circulars:

- i. Oriental Mindoro – 29 routes
- ii. Occidental Mindoro – 8 routes
- iii. Sablayan, Occidental Mindoro – 10 routes
- iv. Pinamalayan, Oriental Mindoro – 1 route
- v. Bongabong, Oriental Mindoro – 3 routes
- vi. San Agustin, Romblon – 2 routes

There are currently 77 modernized units in the region which are servicing seven routes in Oriental Mindoro.

Water Transportation. Given the archipelagic nature of the region, water transport remains the main means of transportation across the islands. The region recognizes the need for the continuous improvement of water transportation. Thus, it is critical to continuously improve port facilities, passenger terminal buildings (PTBs), and access roads leading to the major ports in the region namely, Puerto Princesa, Calapan, Roxas, Odiongan, and Bulalacao, among others.

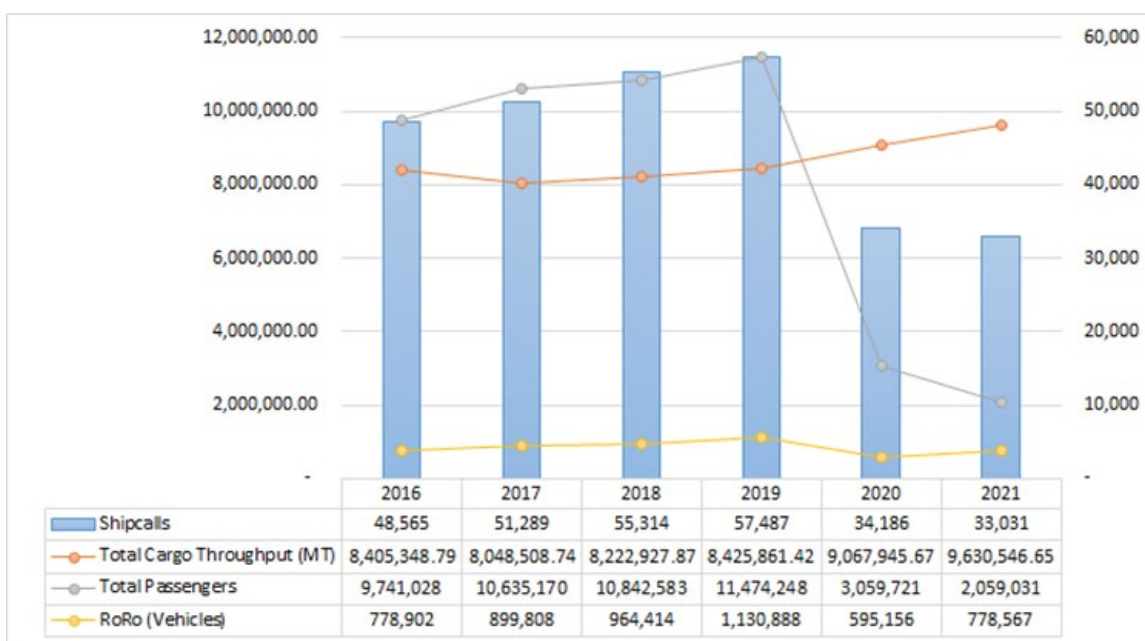
As of 2021, a total of 2,058,031 passengers was recorded across the islands of MIMAROPA region. Total passenger traffic decreased by 33.62 percent from 3,059,721 passengers in 2020 to 2,061,786 passengers in 2021. The number of shipcalls declined by 3.38 percent from 34,186 in 2020 to 33,031 in 2021. In terms of cargo throughput, a total of 9.63 million metric tons of cargo was discharged and loaded at the ports.

The drop of passenger traffic during the pandemic was due to the travel restrictions, and the reduction in maximum allowable passenger capacity. The Maritime Industry Authority (MARINA) decides to increase the allowable capacity of passenger ships, as the country shifts to a more relaxed alert level status. RORO traffic recorded a total of 778,567 vessels in

2021. Essentially water transportation operation still remains below the pre-pandemic level.

Figure 13.4 shows the Maritime Transport Statistics in MIMAROPA, 2016-2021, in terms of total cargo throughput, total passengers, and RoRo vehicles that passed the MIMAROPA ports.

Figure 13.4 Maritime Transport Statistics, MIMAROPA, 2016-2021



Source: PPA

MIMAROPA has a total of 90 ports broken into: two baseports (Calapan and Puerto Princesa), 14 terminal ports, 23 other government ports, 33 municipal ports, two fish ports, and 16 private ports.

Air Transportation. Based on the 2016-2021 air transport statistics of the region, the recorded aircraft

movement, passenger traffic, and air cargoes have the lowest recorded data in 2020 and 2021 compared to the previous years, from 2016-2019. This may be attributed to community lockdowns and travel restrictions due to COVID-19 pandemic.

Table 13.1 Airport Statistics, MIMAROPA, 2016-2021

Particular	2016	2017	2018	2019	2020	2021
Aircraft	43,173	76,561	29,948	28,917	8,382	6,306
Passenger Traffic	2,091,353	2,480,930	2,885,319	2,889,141	656,448	181,562
Air Cargoes	20,714,791	22,796,122	23,135,845	23,922,252	10,730,063	14,706,958

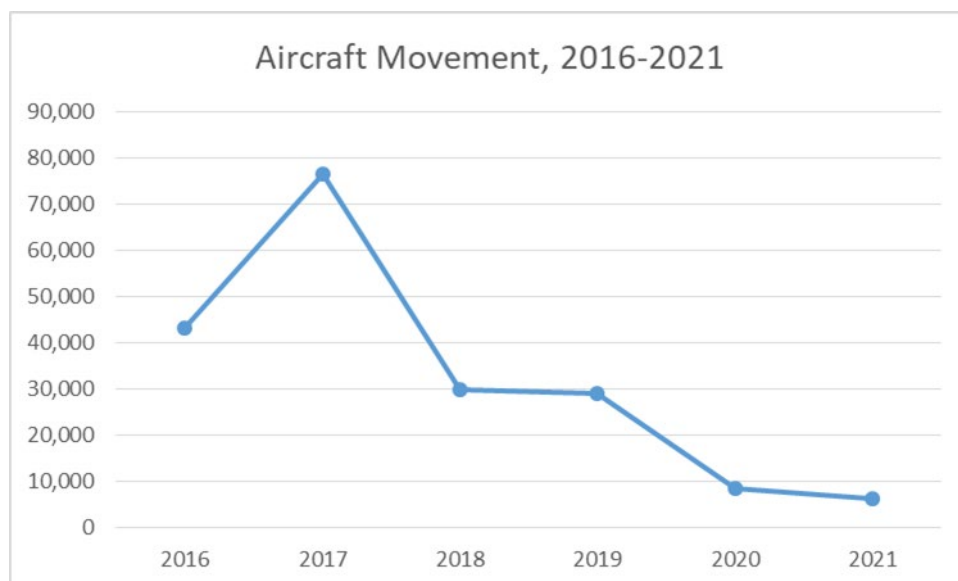
Source: Civil Aviation Authority of the Philippines

As presented in Table 13.1, aircraft movement in CY 2021 was recorded at 6,306. This was 85.39 percent lower than the recorded 43,173 aircraft movement in 2016. The data also showed a continuous decline from 2018 to 2019. This may be attributed to the ongoing construction and improvement of

airports from the reference period which limits aircraft movement.

In 2017, aircraft movement gradually increased but declined from 2018 to 2021 due to opening and operation of pilot schools in the region (Figure 13.5).

Figure 13.5 Aircraft Movement, MIMAROPA, 2016-2021

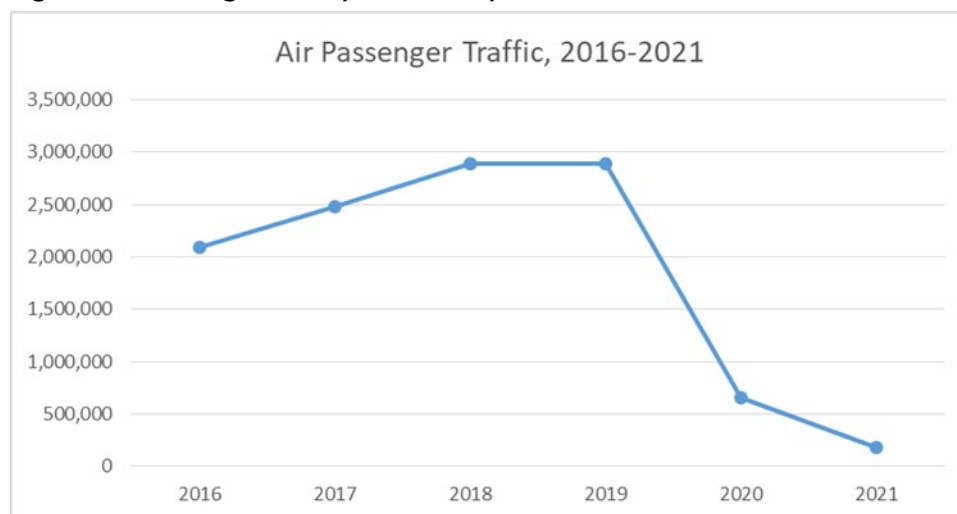


Source: Civil Aviation Authority of the Philippines

Passenger traffic in 2021 was recorded at 181,562. This was 91.32 percentage points lower than the recorded 2,091,353 passenger

traffic in 2016. The sudden decline from 2020 and 2021 was also brought about by the COVID-19 pandemic.

Figure 13.6 Passenger Traffic, MIMAROPA, 2016-2021

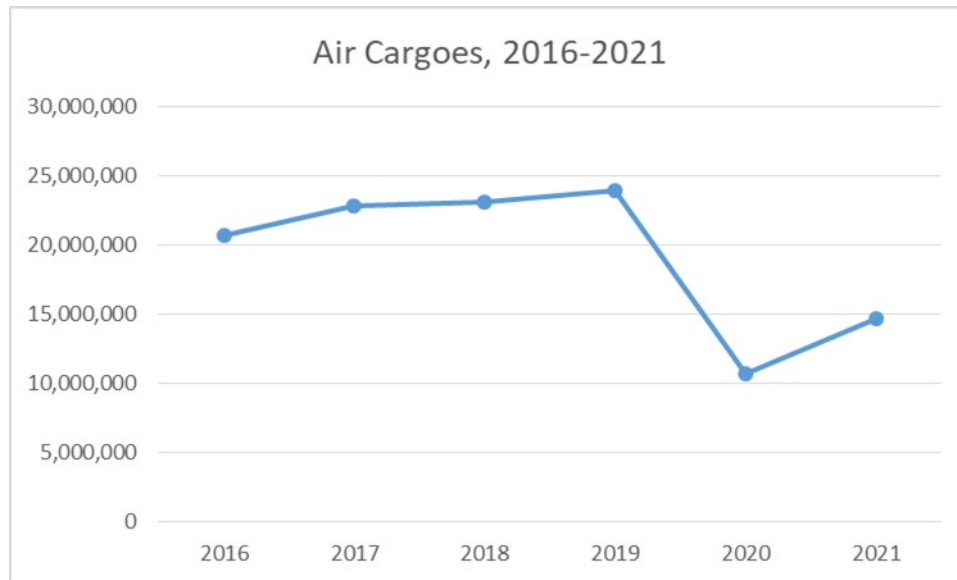


Source: Civil Aviation Authority of the Philippines

Air cargo data in 2021 was recorded at 14,706,958 kilograms. This was 29 percentage points lower than the 20,714,791 kilograms accounted for in 2016. Figure 13.7 also shows a dramatic

increase in 2021 compared to 2020 data. This was attributed to the continuous transport of supplies and goods to satisfy commodity needs during the pandemic.

Figure 13.7 Air Cargoes, MIMAROPA, 2016-2021



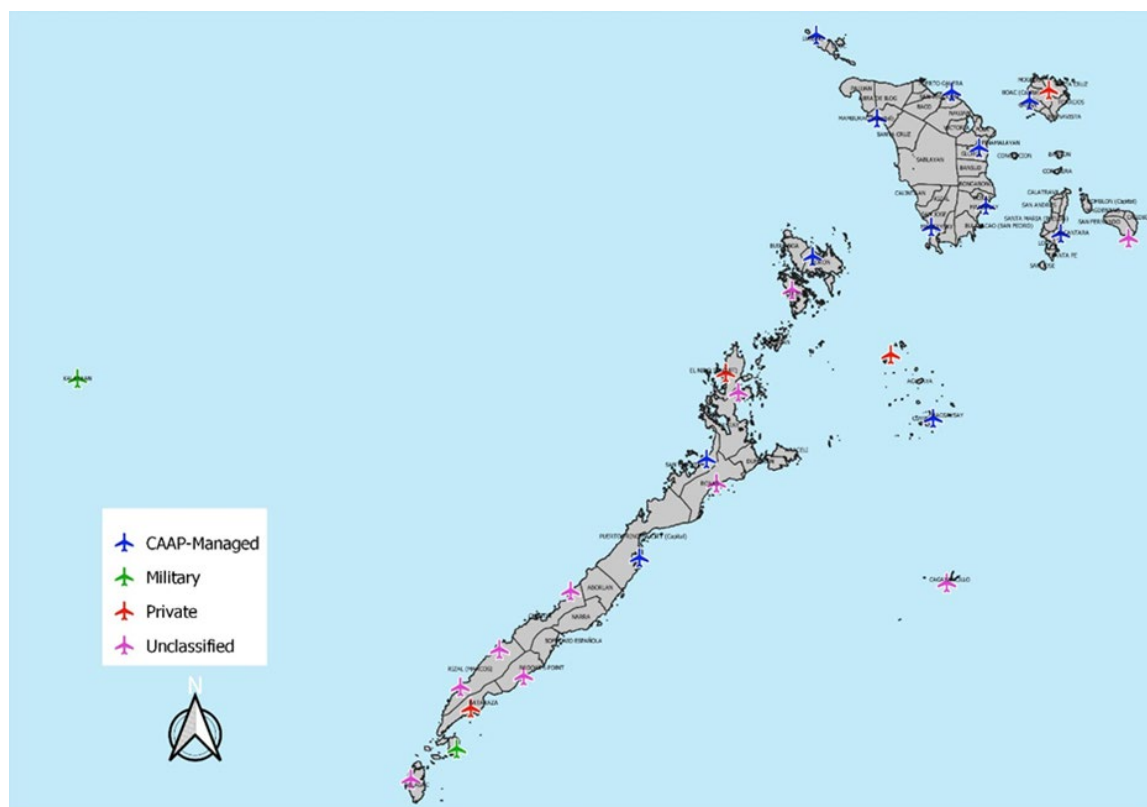
Source: Civil Aviation Authority of the Philippines

There are 28 airports in the MIMAROPA region, 12 of which are operated and managed by the Civil Aviation Authority of the Philippines (CAAP). In addition, there are four privately-owned airports in the municipalities of Bataraza, Agutaya, and El Nido in Palawan, and Sta. Cruz Airport in Marinduque, and two military airports in the municipalities of Balabac and Kalayaan in Palawan. Figure 13.8 shows the airport location and classification in the

MIMAROPA Region.

For 2022, there are only eight airports operating in the region which include, Puerto Princesa International Airport, Busuanga Airport, San Vicente Airport, El Nido (Lio) Airport, and Cuyo Airport in the province of Palawan, San Jose Airport in Occidental Mindoro, Gasan Airport in Marinduque, and Tugdan Airport in Romblon.

Figure 13.8 Airport Location and Classification, MIMAROPA Region



Source: NAMRIA

Palawan being a top tourist destination has the most number of flights compared to other destinations in the region.

Puerto Princesa City International Airport has around 20 flights operating to and from the following routes: Philippine Airlines (Manila, Clark, Taipei-Taoyuan); PAL Express (Manila and Cebu); Cebu Pacific (Manila, Cebu, and Iloilo); Air Asia (Manila, Cebu and Davao); and Air Juan (Busuanga and Cuyo).

Meanwhile, the Busuanga Airport have daily flights to and from the following destinations: Air Juan (Caticlan, Manila, Puerto Princesa, San Vicente); AirSWIFT (El Nido, Puerto Princesa); PAL Express (Cebu, Clark, Manila); Cebu Pacific (Manila, Cebu); and Skyjet (Manila).

In addition, the San Vicente Airport has the following daily flights to and from the following destinations: Air Juan (Busuanga, Puerto Princesa); PAL Express (Clark); Royal Air Philippines (Clark); and Skyjet (Manila).

Moreover, the El Nido Airport has AirSWIFT going to and from Busuanga, Caticlan, Cebu, Clark, Manila, Puerto Princesa, and Tagbilaran.

Air Juan going to and from Caticlan, Iloilo, and Puerto Princesa is operating in Cuyo Airport.

Only Cebu Pacific going to and from Manila is operating in San Jose Airport in Occidental Mindoro and Gasan Airport in Marinduque.

Information and Communications Technology.

Internet services in remote and unserved areas, empowers the citizenry by their participation to the global digital economy. In 2021, the region through the DICT, intensified the implementation of connectivity programs to achieve more inclusive ICT access.

Critical roadmaps and programs towards the development of ICT have been taking roots in the region. These include the implementation of the Free Wi-Fi access in public areas and the National Broadband Plan (NBP). Additional digital infrastructures were established in the region to provide ICT services.

Through the Free Wi-Fi for All Program, internet connectivity is being provided in public places for free. Since online connectivity is becoming more significant in the new normal, the great need of MIMAROPAns is being continuously responded with the implementation of various ICT projects.

For 2021, 139 active free Wi-Fi sites were established in the region. These sites were utilized in state universities and colleges, public high schools and elementary, hospitals, ports, municipal plazas, and local government units' town/municipal hall.

The province of Romblon with 40 sites has the highest number of active free Wi-Fi sites in the region. This was followed by Palawan with 35 sites, Occidental Mindoro with 25 sites, Oriental Mindoro with 24 sites, and Marinduque with 15 sites.

In the province of Marinduque, the acquisition of land in the Municipality of Boac was made through a usufruct agreement to facilitate the establishment of a self-supporting tower (SST) with 50 meters in height as part of the NBP component. The project with a proposed budget of PhP 32.3 million will include a tower build up and tower colocation with the National Grid Corporation of the Philippines (NGCP) Tayabas relay station, and microwave radios.

The GovNet project was integrated with the NBP as it aims to interconnect government agencies to provide fast, secure, and efficient fiber connectivity, and improve provision of public services to people. In MIMAROPA, national government agencies and local government units with online presence using the government web template (GWT) and government web hosting services (GWHS) include, LGU Sta. Fe and

LGU San Andres in Romblon, Provincial Government of Marinduque, LGU Socorro in Oriental Mindoro, NTC MIMAROPA, and NEDA MIMAROPA.

Capacity building and upskilling the ICT competencies of teachers, educators, and students in public and private educational institutions were conducted. A total of 769 teachers, 360 non-teachers, and 190 students in the region undergone the ICT specialized trainings such as digital governance and management, digital transformative technologies, and cyber security.

The region continues to boost e-governance and e-services to improved business application processes in MIMAROPA. The integrated business permits and licensing system (iBPLS) which streamline the processing and issuance of various permits, certificates and licenses was introduced and adopted by some LGUs in the region. Among the LGUs adopted the system include, municipalities of Bulalacao, Gloria, Mansalay, Puerto Galera, and Socorro in the province of Oriental Mindoro, municipalities of Rizal and Sablayan in Occidental Mindoro, municipalities of Banton, Ferrol, Looc, and San Jose in Romblon, and municipalities of Busuanga, Culion, Quezon and San Vicente in Palawan.

All these initiatives are in accordance with the Ease of Doing Business and Efficient Government Services Delivery Act, and the President's directive to connect the government to its people.

In MIMAROPA, there were six towers established by the DICT, all of which are unserviceable and subject for rehabilitation (Table 13.2).

Table 13.2 List of DICT Towers, MIMAROPA, October 2021

NO.	PROVINCE	MUNICIPALITY	ADDRESS	TOWER HEIGHT	TOWER STATUS
1	Occidental Mindoro	Mamburao	Barangay Payompon	30 M	For rehabilitation
2	Oriental Mindoro	Calapan City	Barangay Bulusan	30 M	For rehabilitation
3	Oriental Mindoro	Calapan City	Barangay Sta. Isabel	32 M	Ongoing rehabilitation
4	Oriental Mindoro	Pinamalayan	Barangay Zone II	22 M	For rehabilitation
5	Oriental Mindoro	Socorro	Barangay Mabuhay I	22 M	For rehabilitation
6	Palawan	Puerto Princesa City	DICT Palawan, Burgos St. PPC	22 M	For rehabilitation

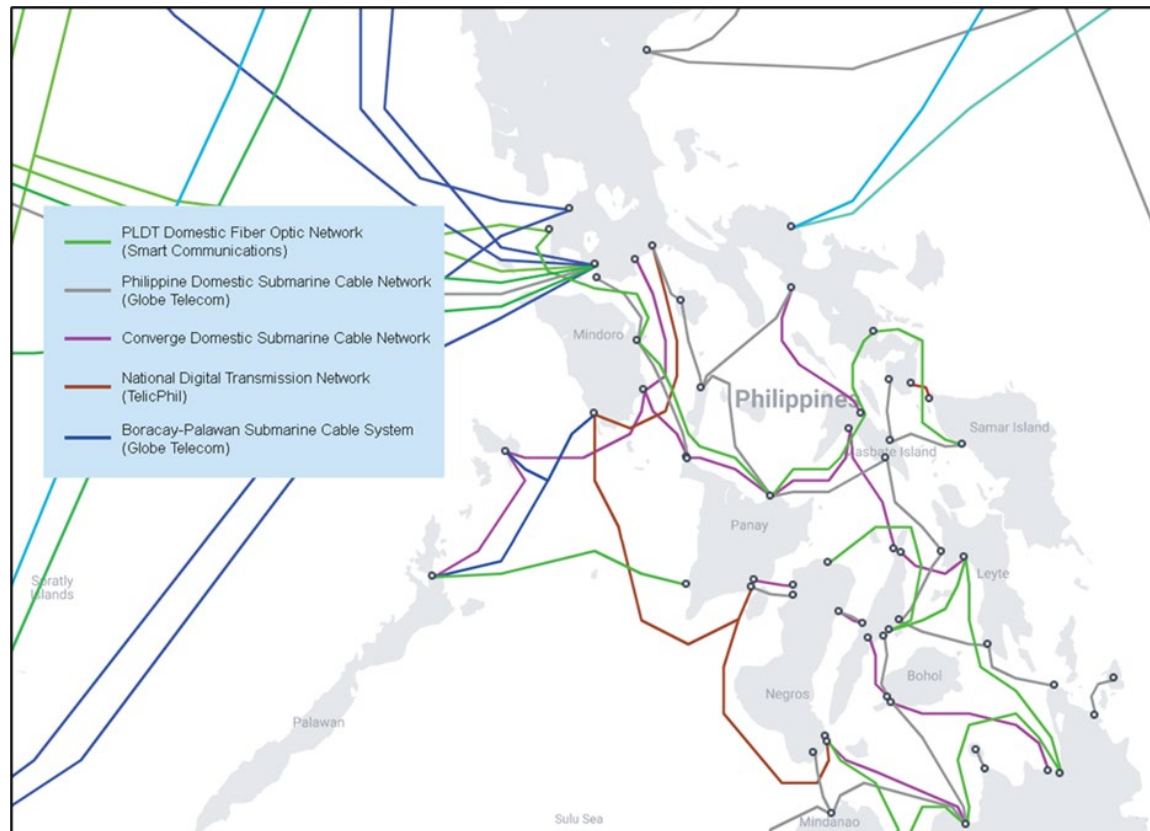
Source: DICT Luzon Cluster 3

There are four major network providers operating in the region, namely: Smart Communications, Globe Telecom, DITO Telecommunity, and Converge ICT Solutions, Inc.

Figure 13.9 shows the existing submarine cables and landing point in MIMAROPA region. The PLDT submarine cable network has its landing points in

Pinamalayan, Oriental Mindoro and Taytay, Palawan. Meanwhile, the Globe Telecom has its landing points in Pinamalayan in Oriental Mindoro, San Jose in Occidental Mindoro, Boac in Marinduque, Calatrava in Romblon, and Coron and Tatay in Palawan. In addition, the Converge has its own landing points in Roxas, Oriental Mindoro, and Coron and Taytay in Palawan.

Figure 13.9 Existing Submarine Cables and Landing Points, MIMAROPA

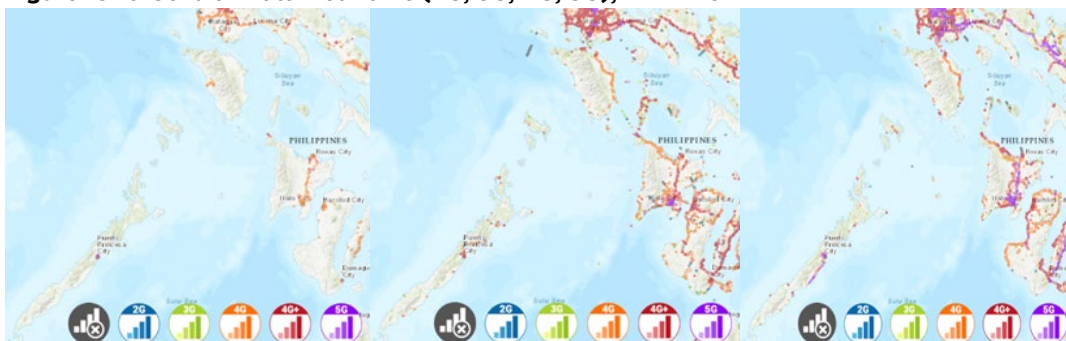


Source: <https://www.submarinecablemap.com/country/philippines>

In MIMAROPA region, only the province of Palawan has available 5G cellular data signals, while the rest of the provinces have 4G data signals as its maximum.

No available data for Converge ICT Solutions, Inc. (Figure 13.10)

Figure 13.10 Cellular Data Networks (2G, 3G, 4G, 5G), MIMAROPA



Source: <https://www.nperf.com/en/map/PH>

The main challenge in infrastructure development is still the physical connectivity to support trade and tourism activities. Critical transportation infrastructure projects in the region need to be given priority at the national level. More investment on strategic infrastructure projects will hasten the economic development of the region.

In 2012, the MIMAROPA Intermodal Transportation Development Plan (MITDP) 2011-2030 identified challenges which must be considered in the succeeding development plans. Investments that build transport capacities and provide accessibility to the Regional Government Center (RGC) and other centers are among them. The RGC in Calapan City, Oriental Mindoro should be made accessible to render efficient delivery of services. The provision of efficient transportation links to all of the MIMAROPA provinces is top priority.

Transportation networks in the region such as those roads implemented through the convergence projects (e.g., ROLL IT, TRIP) must continue to improve tourism and agriculture in underdeveloped areas, connect remote towns and municipalities to production, markets and destinations, to induce trade and move economic activities.

There are various challenges in project implementation such as limited contractors operating in the region, high cost of transporting construction materials to small islands, among others.

MIMAROPA seaports are sufficient in quantity, but most are underdeveloped and have inadequate equipment. The increasing cargo and passenger traffic during holiday season is straining the already congested MIMAROPA ports, and also affecting the nearby road networks.

The MIMAROPA region as compared to other regions in the country have been left behind in terms of speed and reliability of internet services.

Water Resources

Water-related data collected is inadequate in time/space frequency to properly assess state of water resources and analyses of available data is lacking

to provide information and insights for sustainable planning and management. The need to invest and establish long-term water-related data monitoring system (for surface/ground water, water quality, sediments, etc.) for the region.

RDC MIMAROPA adopted the IWRM framework as an integral part of development planning and programming in the region, to identify and prioritize projects. The IWRM framework will respond to the challenges such as increasing of water demand together with insufficient water infrastructure that threatens to outstrip sustainable levels of water supply, and the threats on ground and surface water caused by: a) domestic, agricultural, and industrial wastes; b) watershed degradation including deforestation and denudation of forests; and c) climate change and global warming.

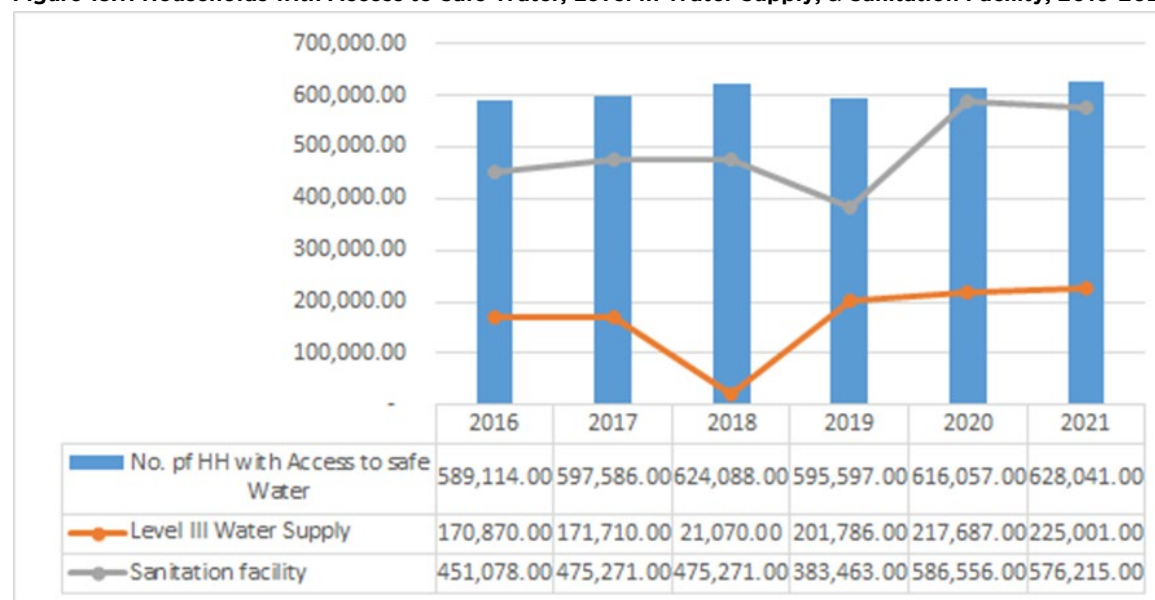
RDC MIMAROPA also adopted the Philippine Water Supply Sanitation Master Plan (PWSSMP) Data Book and Roadmap, this will stimulate infrastructure development in the water sector through interventions supported by significant investments, benefiting households without access to safe drinking water and improved sanitation.

Approximately 84.37 percent of MIMAROPA's households have access to basic safe water sources in 2021, which is not far behind with the national average of about 88 percent. This translates to around 618,041 households. About 36.97 percent of households have Level III service connection in their homes, while only 17.50 percent utilize Level II connection.

Access to Level I service was recorded at 43.53 percent. The safe water sources under Level I include tubed and/or piped deep/shallow wells and protected springs, rivers, streams, among others. Oriental Mindoro with approximately 211,886 households, has the highest access to basic safe water at 102.57 percent. Romblon and Marinduque, ranked second and third with 97.73 percent and 97.72 percent, respectively.

Figure 13.11 shows the number of households with access to safe water, and Level III Water Supply and Sanitation. Facility, 2016-2021.

Figure 13.11 Households with Access to Safe Water, Level III Water Supply, & Sanitation Facility, 2016-2021



Source: DOH MIMAROPA

The increase of MIMAROPA's economic activity taking place in urban areas like Calapan City, San Jose, Odiongan, Puerto Princesa City and surrounding municipalities has been driven mainly by migration which also increase its demand for sanitation services.

In 2021 about 77.41 percent of MIMAROPA's households are with basic sanitation facility or around 576,215 households. Romblon with approximately 52,453 households, has the highest access to basic sanitation facilities at 92.90 percent. Marinduque and Oriental Mindoro, ranked second and third with 92.9 percent and 86.6 percent, respectively.

Irrigation. The cropping intensity increased by 0.53 percent from 187.34 percent in 2020 to 187.87 percent in 2021. The ratio of the actual irrigated area to the total potential irrigable area increased by 1.58 percent, from 76.29 percent in 2020 to 77.87 percent in 2021.

The National Irrigation System (NIS) developed area increased by 2.31 percent from 35,010.46 hectares in 2020 to 35,817.46 in 2021. Oriental Mindoro has the highest percentage of NIS-developed areas with 4.88 percent. There was no increase in the NIS-developed area in Occidental Mindoro, Romblon and Palawan, and no NIS-developed area in Marinduque.

The Communal Irrigation Systems (CIS) developed area in MIMAROPA is at 49,621.08 hectares in 2021, an increase of 3.05 percent from the previous 48,151.68 hectares developed in 2020.

Palawan has the highest percentage of communal irrigation system developed area, with 3.43 percent, followed by Occidental Mindoro with 3.22 percent, Oriental Mindoro with 2.84 percent, and Marinduque with 1.79 percent. Romblon has the lowest percentage of CIS developed area at 1.07 percent.

Flood Control. Due to the geographical location of MIMAROPA, the region is highly susceptible to typhoon and flood-related disasters. The lack of data on flood control remains a problem in measuring achievements in the sector.

The flood control subsector has no reference master plan that consolidates the baseline information, initiatives, programs, projects and activities, goals and desired outcomes for the region.

DPWH invested a total of PHP14.973 billion for 498 flood control projects from 2016-2021. In 2021, DPWH invested a total of PHP3.106 billion for 94 flood control projects. Oriental Mindoro has the greatest number of flood control projects with 39, followed by Marinduque with 16, Occidental Mindoro and Romblon with 14, and Palawan with 11 flood control projects funded in 2021.

Only one flood control project was completed in 2021, amounting to Php 166.373 million located in Occidental Mindoro.

Water Supply. With only 84.37 percent of the population in MIMAROPA having access to safe water and 77.41 percent to basic sanitation as of 2021, achieving the sectoral goals of 96.0 percent access to safe water and 84.0 percent access to basic sanitation by 2022, is a challenge.

Excessive groundwater extraction and subsequent potential land subsidence is also one of the challenges in water sector. The extent of pumping and extraction of ground water shall take into consideration the possibility of salt water intrusion, land subsidence, and depletion of source.

With over 30 water-related agencies with overlapping functions, managing the country's water resources is fragmented and uncoordinated especially in the context and need for integrated land, water, coastal and hazard management.

Water-related data collected is inadequate in time/space frequency to properly assess state of water resources and analyses of available data is also lacking to provide information and insights for sustainable planning and management.

There is also lack of coordination among government agencies, private organizations or individuals responsible or involved in IWRM in terms of planning and management.

The flood control subsector has no reference master plan that consolidates the baseline information, initiatives, projects, programs and activities, and goals and desired outcomes for the region.

Resiliency of Irrigation Facilities. Climate change puts irrigation infrastructure at risk, which affects irrigation systems resilience. Irrigation systems must increase their adaptive capacity to stay resilient in the face of anticipated climate challenges.

Energy

The MIMAROPA region is served by eight Electric Cooperatives namely: Oriental Mindoro Electric Cooperative, Inc. (ORMECO), Occidental Mindoro Electric Cooperative, Inc. (OMECO), Lubang Electric Cooperative, Inc. (LUBELCO), Marinduque Electric Cooperative, Inc. (MARELCO), Tablas Island Electric Cooperative, Inc. (TIELCO), Romblon Electric Cooperative, Inc. (ROMELCO), Palawan Electric Cooperative, Inc. (PALECO), and Busuanga Island Electric Cooperative, Inc. (BISELCO).

Figure 13.12 shows that the total installed capacity of 65 existing power plants in the region is at 354.16 MW with a dependable capacity of 289.12 MW as of 2021, compared to the 30 power plants at 228.79 MW with dependable capacity of 172.36 MW in 2016. The region's total peak demand increased to 197.32 MW in 2021 from 142.57 MW in 2016.

The total power reserve of the region is at 91.8 MW or 31.75 percent of the dependable capacity or net system reserve in 2021, which is above the 10 percent minimum prescribed in the Philippine Small Grid Guidelines. This is higher than the total power reserved of the region with 29.79 MW or 13.02 percent of the total dependable capacity in 2016. Marinduque and Occidental Mindoro have the least power supply reserve with an operating margin of 1 MW and 3 MW, respectively.

Figure 13.12 Dependable Capacity, Peak Demand, & Excess Capacity, 2016-2021



Source: Department of Energy

The number of households with power connections in 2021 reached a total of 716,775 or 95.24 percent of the total potential households from 643,950 or 84.1percent in 2016. The 2021 RDP target of 96.6 percent of households provided with electric power supply was not achieved.

Marinduque, Romblon, and Oriental Mindoro have the highest percentage of households provided with electric power supply with 100 percent of the potential households in 2021. Palawan has the lowest percentage of households provided with electrical power supply in the region with 84.1 percent, while Occidental Mindoro attained 89.4 percent household electrification in 2021.

Regional power consumption increased by 8.57 percent from 919 GWh in 2020 to 997.76 GWh in 2021. The increase in regional power consumption can be attributed to the increase in the total number of households being electrified. The gradual resumption of offices, businesses and commercial establishments will further increase power consumption of the region.

The region's renewable energy retained its capacity of 50.9 MW. Several renewable energy projects in the provinces of Oriental Mindoro and Palawan were awarded in 2021 with total potential capacity of about 28.0 MW.

The average distribution losses from the MIMAROPA electric distribution utilities slightly decreased to 10.89 percent in 2021 from 11.36 percent in 2016.

This is within the 12 percent limit approved by the Energy Regulatory Commission (ERC).

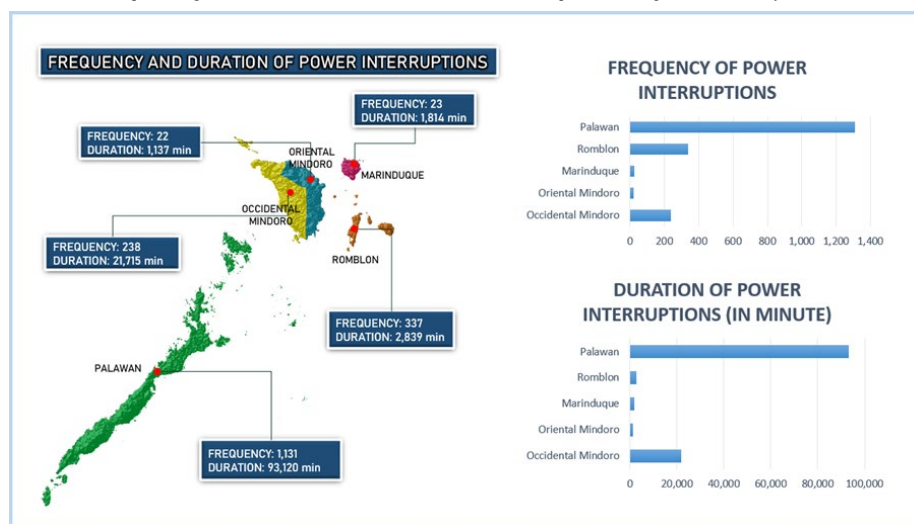
In terms of exploration, given the archipelagic configuration of the country, roughly only 10 percent of the country's territory reveals viable data of petroleum deposits which are mostly concentrated in the offshore of western Palawan and onshore Cebu. Hence, the Philippines is still very much underexplored and so is the MIMAROPA region.

Reliability of power supply, unstable cost of fuel, high dependence on fossil fuels, frequent brownouts, and high electricity cost are the major concerns in the provinces. Figure 13.13 shows the frequency and duration of power interruptions in the Region in 2021.

Over 80 percent of the region's electricity is generated through burning petroleum products. This big dependency on fossil fuels means that the region is highly susceptible to any changes in oil price. The price of oil in particular has increased hugely on wholesale markets in recent years.

While the move towards renewable energy promises potential for far cheaper prices in the long term, over the short to medium term, consumers may have to deal with higher prices caused by high investment in renewable energy. To adapt to this transition, back-up power plants which generate electricity from fossil fuels are still needed, and will be for a long time, for when renewable energy dips.

Figure 13.13 Frequency and Duration of Power Interruptions by Province, MIMAROPA, 2021



Source: Department of Energy

Except for MIMAROPA, all regions in the country are to be fully interconnected to the Philippine Grid.

Malampaya gas field despite being home in MIMAROPA, does not contribute to the region's oil and gas production. As of December 2020, the total government share from its revenue cost US\$11.9 billion. Malampaya's supply is expected to be depleted by 2025 and its contract is set to expire in 2024.

Social Infrastructure

The pandemic showed the crucial role of primary healthcare facilities as hospital overcrowding repeatedly occurred. In 2021, a total of 1,533 primary health care facilities are located in the region, including barangay health stations with and without birthing facilities, wellness clinics, dental clinics, outpatient clinics, specialized facilities, laboratories and rural health units. Of the total primary health care facilities in the region, 107 are located in Marinduque; 195 are in Occidental Mindoro; 561 are in Oriental Mindoro; 446 are in Palawan; and 224 are in Romblon.

The hospital bed to population ratio increased, from 1:1,873 in 2020 to 1:1,947 in 2021. This is still below the standard 1:1,000 hospital bed to population ratio.

A total of 31 licensed hospitals are recorded in MIMAROPA, 14 of which are located in Palawan, 10 in Oriental Mindoro; three in Occidental Mindoro; three in Romblon; and one in Marinduque. Moreover, 18 hospitals are owned by the government. These are all licensed as Level I hospitals.

Classrooms provided to secondary level students. As of school year (SY) 2019-2020, the DepEd recorded a 1:27 pupil to classroom ratio which is better than the ideal pupil-classroom ratio of 1:30. On the other hand, the student-classroom ratio of 1:46 is below the ideal student-classroom ratio of 1:40.

Proper waste management promoted but remains a persisting issue. In 2021, the total waste collected in the region reached 53,608.20 tons. About 70% of these are residual waste accounting to 37,513.55 tons

followed by biodegradable waste recorded at 8,603.80 tons or about 16.05% waste collected in 2021. Out of the five provinces, Palawan recorded the highest waste collected at 47,459.39 tons or about 88.53% of total waste collected in the region. This may be attributed to the greater number of population and commercial establishments operating in Palawan as compared to other provinces in the region. (See Chapter 4.3)

As of 2022, there are a total of 13 sanitary landfill facilities in the region whereas one is located in Occidental Mindoro (Abra de Ilog), three in Oriental Mindoro (Calapan City, Pinamalayan, and Gloria), one in Marinduque (Boac), one in Romblon (San Jose), and six in Palawan (Araceli, Brooke's Point, El Nido, Puerto Princesa City, Quezon, and Roxas). The remaining SLF is privately owned by the Coral Bay Nickel Corporation in Sofronio Española.

Three septage/sewerage facilities were reported in the region. Of the three septage/sewerage facilities, two are in Calapan City, Oriental Mindoro, and one is in Puerto Princesa City. Also included are the Sabang Sewerage Collection and Treatment System Project in Puerto Galera, Oriental Mindoro and Sewage and Solid Waste Treatment Plant Project in El Nido, Palawan.

Natural disasters, like typhoons, adversely affect health facilities in the region. The onslaught of typhoon Odette in December 2021, damaged many of the health facilities, particularly in the province of Palawan. Primary health care for the large population, especially for the infants, children, and pregnant and lactating women, were disrupted. Typhoon Odette is just one of the many natural disasters that gravely impacted the health outcomes of the region.

Capacity of hospitals to cater to numerous and various types of patients is still low. The region has only four Level II hospitals, all of which are privately owned. In addition, there are 39 infirmaries in MIMAROPA serving the region's total population. Government hospitals, which are all at level I, have been serving a number of patients that is more than their bed capacity requirement.

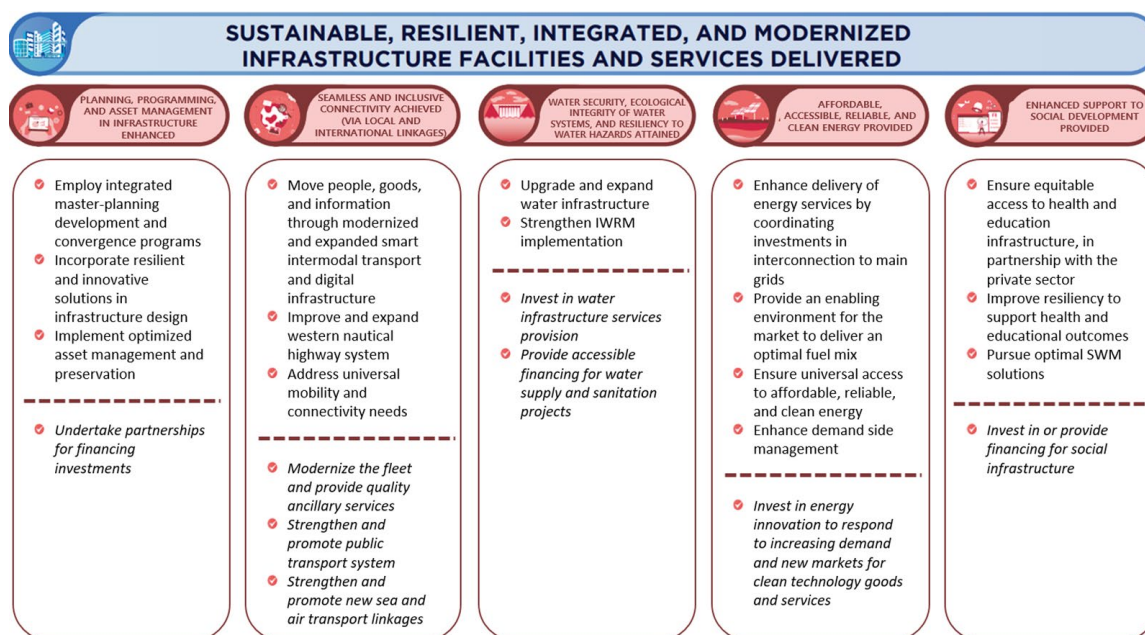
Insufficient classrooms provided to secondary level students. As of 2019, the number of classrooms for elementary and secondary level remained at 24,015 classrooms in the region. This includes 17,789 classrooms in the elementary level and 6,226 classrooms in the secondary level. Palawan (excluding Puerto Princesa City) recorded the highest number of classrooms with 7,276. This was followed by Oriental Mindoro (excluding Calapan City) with 5,834 classrooms and Occidental Mindoro with 3,464 classrooms, and Romblon with 2,813 classrooms. Marinduque reported the lowest number of classrooms with 2,294 classrooms. Puerto Princesa City and Calapan City registered 1,483 classrooms and 853 classrooms, respectively. However, limited number of school facilities in geographically isolated and disadvantaged areas (GIDAs) are still being observed wherein pupils/students in different grade levels share a classroom.

Lack of appointed Municipal ENR Officer leads to unclear authority, responsibility, and accountability in the implementation of environmental policies such as the SWM. Since the designated MENR Officers also perform other tasks inherent to the original plantilla position, ENR functions become secondary. Further, despite continued efforts of government to encourage the LGUs to comply with Republic Act No. 9003 or the Ecological Solid Waste Management Act, insufficient budgetary requirements to establish, operate, and maintain SWMs and limited technical capacity in planning and establishing appropriate SWM services still hamper the full implementation of Republic Act No. 9003.

Strategies

To help ensure that the goals of bringing down the poverty rate to a single-digit within the six-year period, the overarching objective for the infrastructure sector is to “Build Better More.”

Figure 13.14 Strategy Framework to Expand and Upgrade Infrastructure



Note: Strategies above the dashed lines require action by government entities, and those below by non-government entities.

The strategic framework for Chapter 13 (Figure 13.14) is geared toward the delivery of sustainable, resilient, integrated, and modern infrastructure facilities and services. It comprises cross-cutting strategies and specific strategies corresponding to each of the infrastructure subsectors: connectivity (physical and digital), water resources, energy, and social infrastructure.

To enhance planning, programming, and asset management in infrastructure

Employ integrated master-planning development and convergence programs

A master plan provides a sound basis for rational prioritization and a holistic approach in sectoral or area specific development. For instance, the Master Plan for Sustainable Urban Infrastructure Development in Calapan City was undertaken to coordinate development concerns and identify investment priorities while being responsive in adopting sustainable development approach in emerging issues and opportunities.

The RDC will pursue the formulation, updating, of master plans for various sector and areas with coordination across all government levels, and consistent with priority development strategies of the RDP, some of which as follows:

- i. Updating of the MIMAROPA Intermodal Transport Development Plan
- ii. Formulation of Port City/Municipality Development Master Plan for strategic municipalities and cities in the region
- iii. Formulation of the West Philippine Seaboard Nautical Highway Master Plan
- iv. Formulation of the Cavite-Batangas-Mindoro Logistics and Intermodal Transport Master Plan

Incorporate resilient and innovative solutions in infrastructure design

Infrastructures in MIMAROPA are vulnerable to natural hazards and climate change. Rigorous site selection and applying risk-mitigation measures must be included in planning infrastructure projects. Furthermore, the adoption of Nature based (Green-

Grey) Transportation Infrastructure planning and design is highly encouraged.

Implement optimized asset management and preservation

MIMAROPA seaports are sufficient in quantity, but most are underdeveloped and have inadequate equipment and manpower. While continuing the expansion and development of MIMAROPA ports to ensure inter-island mobility in the region, shall require PPA to shift its focus to sustainable port operations.

Undertake partnerships for financing investments

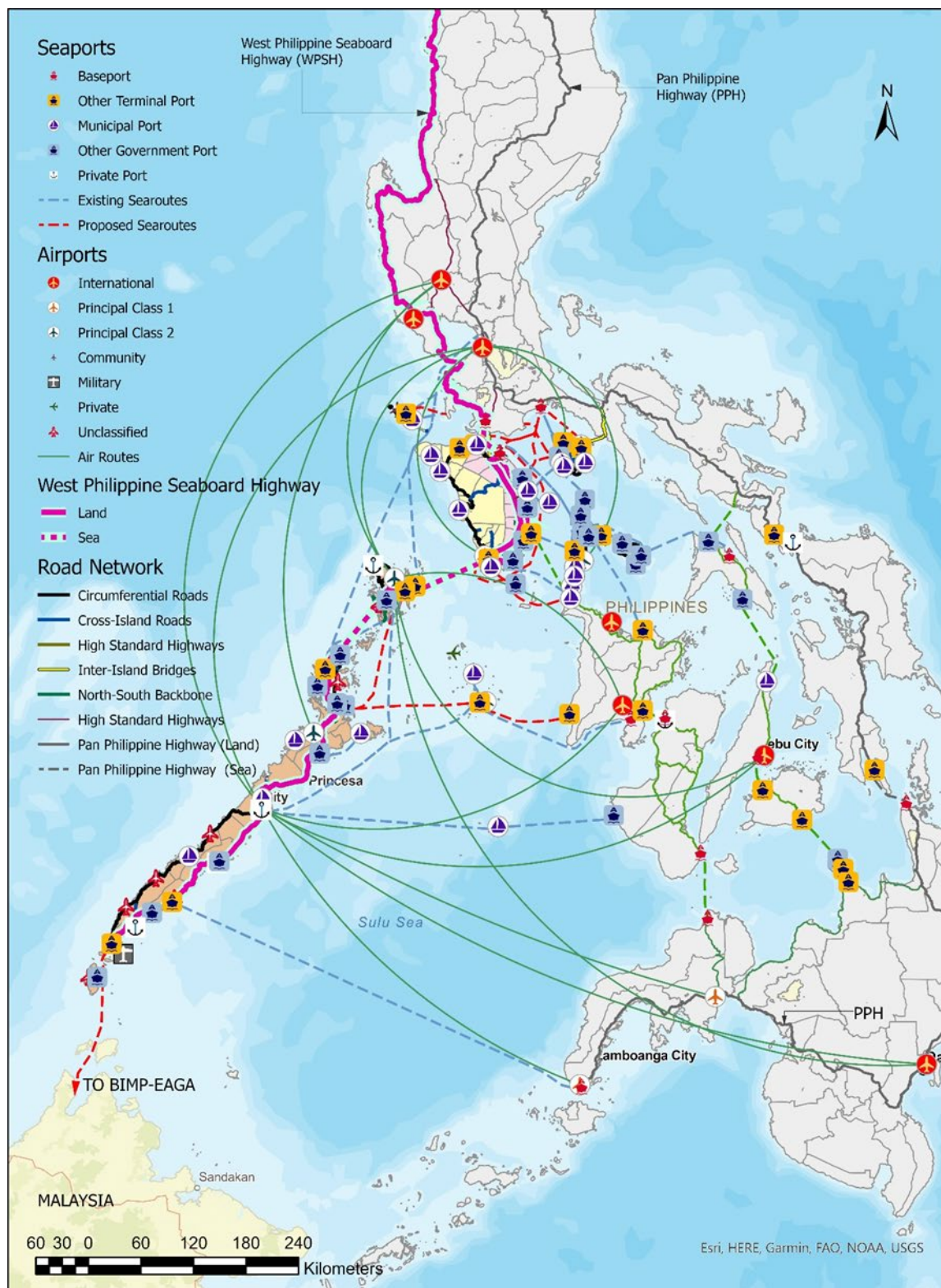
Private sector participation in the financing investments of big-ticket projects, and support infrastructure projects, shall be promoted and encouraged. This includes energy, and power interconnection projects, integrated transport terminals, park and sail facilities in the major ports in the region, shipping, and other logistics support infrastructure. This can be done through direct investments or through Public-Private Partnerships.

To achieve seamless and inclusive connectivity via local inter-island and international linkages

Move people, goods, and information through modernized and expanded smart intermodal transport and digital infrastructure

The proposed Batangas-Mindoro super bridge will further enhance the role of Mindoro Island as gateway to the Island Provinces of Visayas and Mindanao through the Strong Republic Nautical Highway. Faster and efficient transport of goods and people will be realized once the proposed bridge and its complimentary projects such as the STAR Tollway

Figure 13.15 Proposed Intermodal Connectivity and Inter-island Linkages in MIMAROPA



Generated by NEDA MIMAROPA GIS Team (PMED)

Extension to Mindoro, West Philippine Seaboard Nautical Highway, and Batangas Spur Road Project are completed.

MIMAROPA being archipelagic in configuration will benefit in the opening of new sea routes. The private sector will spearhead improving transport services in the region through fleet modernization and inter-island route expansion.

This will be in conjunction with the implementation of smart intermodal transport terminals equipped with state-of-the-art fleet tracking, dispatch, and ticketing system that will facilitate seamless transfer of passengers from one mode to another (sea-land-air).

Furthermore, the development of the West Philippine Seaboard Highway will take into consideration existing intermodal transport infrastructure network that takes compatibility, economic feasibility, comparative advantages, climate-risks, and linkages of desired transportation modes in providing seamless connectivity across the western Philippines and open up BIMP-EAGA linkages.

The schematic diagram of the proposed intermodal connectivity and inter-island linkages in MIMAROPA is presented in Figure 13.15.

Invest in advancing and expanding access to digital infrastructure, and support open access through strategic collaboration

Reliable and Affordable Electricity to support the Telecommunications/Internet Services. Essentially, the use of ICT relies on reliable and affordable electricity. Most part of the MIMAROPA region, are rural areas which has sustained disadvantage due to limited connection in the transmission grids. The reliance of ICT on electricity further adds to the complexity of the trade-off between the utilities' financial viability. However, the power requirements of ICT will continue to increase and electricity costs will form a considerable part in the provision of ICT services in the region. In other words, electricity is extremely relevant to internet and broadband development in MIMAROPA.

Broadband development and its geographical spread will depend on increasing national electrification as a pre-condition. Obviously, the deficiency of electricity supply raises telecommunications network cost significantly, but there is often potential for shared backbone infrastructure. Power poles and ducts can carry optical fiber alongside the power cables at low marginal cost.

Whether telecommunication provision and electricity generation and transmission can be coordinated in desirable way depends upon local circumstances. As people generally give higher priority to electricity supply than to telecommunications, it might logically expect that electricity supply would arrive in a community first, and when this happens, telecommunications follow more easily.

The local government units may conduct a review of existing processes and procedures that may be slowing down the development of power facilities and ICT infrastructure in the locality. They may simplify the permit application process for power and ICT infrastructure projects and establish clear and concise regulations for power and ICT infrastructure development, this can help streamline the approval process and reduce delays caused by confusion or misinterpretation of regulations. Increase transparency and accountability in the approval process for power and ICT infrastructure projects. This can include making project information publicly available, establishing public review processes, and ensuring that decisions are based on objective criteria.

Enhancement of ICT Infrastructure. A common tower policy is the strategy being promoted by the government. It allows multiple telecommunication companies (TelCos), mobile networks, and internet service providers (ISPs) to co-locate at a single site while capital and operation expenses is distributed among them.

Under the common tower policy, independent tower companies (TowerCos) will develop shared TelCo tower infrastructures to expand wireless network coverage and improve ICT services across the country.

TowerCos level the playing field for old and new entrants through a more efficient market, allowing further competition in the ICT industry. Thus, more competition could lead to lower mobile prices and supporting innovation, resulting in better consumer access and experience.

The use of ICTs can offer an important complementary component of the national information infrastructure leading to capability building and enhanced learning throughout the region's economy. Indeed, the capacity of a national or regional system of innovation for building the capabilities required to take advantage of ICTs is needed.

Improve and expand western section of the SRNH

Expressways or High Standard Highways are: a) multi-lane divided toll roads which are privately maintained under concession from the government; and b) provide a high level of traffic services by assuring high speed mobility and safe travel to vitally support sound socio-economic development of the regions and the country. The Strong Republic Nautical Highway (SRNH) is an example of integrated network of highway and vehicular ferry routes which forms the backbone of a nationwide vehicle transport system. It is a system of roads and ports developed by the Philippine government to connect the major islands of Luzon, the Visayas and Mindanao. It comprised of the Eastern Nautical Highway, Central Nautical Highway, and the Western Nautical Highway.

The Western Nautical Highway passes through Batangas City in CALABARZON and Calapan City, Roxas, and Bulalacao municipalities of Oriental Mindoro in MIMAROPA. Both CALABARZON and MIMAROPA regions are expected to benefit from the implementation and completion of some major expressway projects such as: a) Laguna Lakeshore Expressway Dike Project; b) Bataan-Cavite Interlink Bridge Project; c) South Luzon Expressway (SLEX) Toll Road 4 (TR-4); and d) STAR Tollway extension to Batangas Port. The said expressway projects will be instrumental in the realization of the: a) Batangas-Mindoro Bridge Project; b) Marinduque – Quezon Link Expressway (MQLEX); c) expansion of the Western Nautical Highway to Palawan via San Jose in Occidental Mindoro, Coron, Culion and El Nido in

Palawan; d) Calapan – San Jose Expressway Project, and e) Mindoro-Marinduque, Mindoro-Romblon, and Romblon-Panay bridge interconnection projects.

Address universal mobility and connectivity needs

Develop/improve access roads leading to ports and airports. The increasing cargo and passenger traffic during holiday seasons is straining the already congested MIMAROPA ports and also affecting the nearby road networks is one of the challenges in Maritime Sector. To improve passenger mobility and cargo handling during holiday seasons, the need to upgrade the ports and nearby road networks is necessary to solve the congestion in ports. To address congestion there is the need for the widening of the roads where applicable.

Strategic Ports and Airports Development. The MIMAROPA being an island region relies its access and connectivity to each province, and other regions through ports and airports. The region is host to the Puerto Princesa International Airport and the Calapan Port which are considered as major gateways. The expansion of major ports and airports would promote new market linkages, efficiency, ease of travel, and safety of the traveling public.

Inter and Intra-Island Connectivity and Mobility. While inter-island mobility is made possible using the existing ports and airports, there is still the clamor for the establishment of the Western Philippine Seaboard Highway for the island provinces of the region to be included in the nautical highway system. The system will be supported by the investment for the construction of inter-island bridges, and high standard highways.

In the region, the development and improvement of the Puerto Princesa City International Airport (PPCIA) showed how the improvement of air transport sector benefitted largely its local economic activities and the country as well. This development breakthrough may be simulated across the region by improving existing airport infrastructures and constructing new airports in strategic geographic locations in the region.

The completion of Circumferential roads, Cross-Island roads, construction of by-pass and diversion roads support intra-island mobility.

Active transport networks will be developed.

Development and improvement of the existing road system is encouraged to accord the highest priority in the hierarchy of road users for pedestrians and cyclists.

LGUs and private developers will be incentivized to provide green spaces, have pedestrian-friendly and bikeable developments and programs. LGUs will also be encouraged to promote walkability, bikeability and accessibility within their jurisdictions.

Modernize the fleet and provide quality ancillary services

The opening of the region's air transport market to competitive airport service providers, concessionaires, and airline industries will complement the region's air transport management and operations that will facilitate the expected target demands. While the readiness of support land travel infrastructures, and facilities will provide convenient out-going and in-coming access to it.

Encourage private sector investments in the construction of support facilities and economic enterprises within the transport terminals for potential in-transit passengers. To promote efficiency and safety of sea travel, investments in new and modern shipping vessels is also encouraged.

To accommodate growing trade and ship vessel, ports need to make sure their infrastructure is ready to receive incoming traffic while ensuring operations safety and transparency. Ports should use technologies to better manage resources and improve stakeholder coordination to avoid congestion.

Strengthen and promote public transport system

Pursue the use of modern technology in logistics processes to improve stakeholder coordination. The modernization of existing port terminals will contribute to the reduction of overall transportation costs and shipment delays.

Strengthen capacity of LGUs in transportation planning.

Corollary to the implementation of the Public Utility Vehicle Modernization Program (PUVMP) is the formulation of the Local Public Transport Route Plans (LPTRPs) by the LGUs. However, there is a pressing need to equip the LGUs with the necessary tools and skills to properly undertake transportation planning and management. Transport planning will be effective if it is integrated with land use planning.

Completion of Local Public Transport Route Plans. Completion of the LPTRPs will be pursued to ensure adequate public transportation and logistics services are provided.

To encourage greater private sector participation in the strengthening of the public transport system, there should be rationalized public transport routes, and improved/streamlined road-based transport franchising procedures.

Strengthen and promote new sea and air transport linkages

Establish new missionary sea routes. Shipping companies must be encouraged to serve newly opened missionary routes and inter-regional linkages. These include the Batangas City-San Jose, Occidental Mindoro; San Juan, Batangas-Abra de Ilog, Occidental Mindoro; Roxas, Oriental Mindoro-Calatrava, Romblon; Lucena, Quezon-Odiongan, Romblon-Caticlan, Malay, Aklan; Cajidiocan, Romblon-Masbate City; Lucena, Quezon-Buyabod, Marinduque; Lucena, Quezon-Romblon, Romblon-Culasi, Roxas City, Capiz; Taytay, Palawan-Cuyo, Palawan; Cuyo, Palawan-San Jose de Buenavista, Antique; and Lucena, Quezon-Calapan City, Oriental Mindoro.

Also, to fast track the opening of Buliluyan (Palawan) – Kudat (Malaysia) sea route, promoting international linkages supportive of BIMP-EAGA agreement.

Air transport supports tourism and business travel. MIMAROPA provinces have at least one airport which when fully utilized (with regular flights and affordable fares) will meet the demand

for ease of travel for tourism and business. The newly opened airport in San Vicente, Palawan provides a convenient direct flight from Manila and Clark. San Vicente airport is near the famous Long Beach and 20 minutes away from the town proper.

To attain water security, ecological integrity of water systems, and resiliency to water hazards

Upgrade and Expand Water Infrastructure

Water infrastructure and facilities will be expanded through the implementation of the Philippine Water Supply and Sanitation Master Plan, MIMAROPA Irrigation Master Plan, and the formulation of the MIMAROPA Flood Control Master Plan. These documents will contain a baseline of information, initiatives, priority projects, programs and activities, to attain the goals and desired outcomes of the water sector for the region.

Corollary, the degradation of natural environments, loss of natural safeguards such as trees, riverbank-side vegetation, wetlands and coastal mangroves should be protected to reduce flooding. The protection on watershed area/forest through development of forest land-use plan, and integrated watershed management plan will help to lessen the impact of water-related disasters.

Adopting local and indigenous measures and technologies to protect water resources, especially in groundwater recharge areas and watershed conservation, and the exploration of new water sources to address the excessive groundwater extraction in the region.

Implementation of flood management and mitigation measures should be accelerated such as construction and maintenance of flood mitigating structures, drainage systems, and flood mitigating facilities in principal river basins.

Investments for irrigation system shall focus on the following: a) construction of disaster and climate resilient, small-scale irrigation system; b) retrofitting, restoration, and rehabilitation of existing irrigation; and c) modernization and adoption of new irrigation system (e.g., drip irrigation system, solar-powered irrigation, sprinklers, among others) in areas where it is applicable. Construction and rehabilitation of irrigation facilities shall be prioritized in the provinces of Occidental Mindoro, Oriental Mindoro, and Palawan which are included in the list of priority sites identified in NIMP 2020-2030.

The construction of Ibato-Iraan and Bagtingon SRIP in Palawan and Marinduque, respectively, should be accelerated to improve rice productivity.

Strengthen the implementation of integrated water resources management (IWRM)

Water resources development and management must be integrated with land use, coastal and hazard management in the context of IWRM to facilitate the coordination among government agencies, private organizations or individuals responsible or involved in IWRM in terms of planning and management.

In September 2019, RDC MIMAROPA created the Technical Working Group on Water Resource Management (TWG-WRM). It also adopted the IWRM framework as an integral part of development planning and programming in the region to identify and prioritize projects. The MIMAROPA IWRM framework includes the following sustainable outcomes: a) effective protection and regulation for water security and ecosystems health; b) sustainable water resources and responsive services for present and future needs; c) improved effectiveness, accountability, synergy among water-related institutions and stakeholders; and d) innovative responses to future challenges.

The TWG aims to generate water-related information and to identify challenges and opportunities related to water resources in the region. The TWG has been regularly conducting meetings to discuss among others, the La Niña action Plan, and programs and projects for IWRM implementation.

The TWG needs to identify, investments and establish long-term water-related data monitoring system (for surface/ground water, water quality, sediments, etc.) for the region. Since water-related data collected is inadequate in time/space frequency to properly assess state of water resources and analyses of available data is also lacking to provide information and insights for sustainable planning and management.

To address the lack of data on flood control, DPWH needs to develop an asset management information system for flood risk management. This will assist in strategic planning of integrated flood risk management (IFRM) infrastructure development as well as improve monitoring and maintenance works.

Invest in water infrastructure services provision and provide accessible financing for water supply and sanitation (WSS) projects

Water infrastructure and services will be provided through PPPs and other local water districts. To address the WSS sector's fragmented, poorly enforced, and low-coverage regulatory system, the economic regulatory environment will be rationalized/strengthened in particular for WSS projects. This includes the consolidating and harmonizing tariff-setting procedures, establishing performance and technical standards, and developing rules and processes for license granting and revocation. A credible and effective economic regulatory regime is considered as inducing the extension and enhancement of services, encouraging additional private sector

engagement, protecting consumer interests, and addressing the conflicts of interest present in current regulatory institutions. The region supports the creation of the Department of Water Resources with regional offices that will address these issues.

In addition, with government assistance, a framework for rationally distributing WSS resources will be developed.

Power and Energy

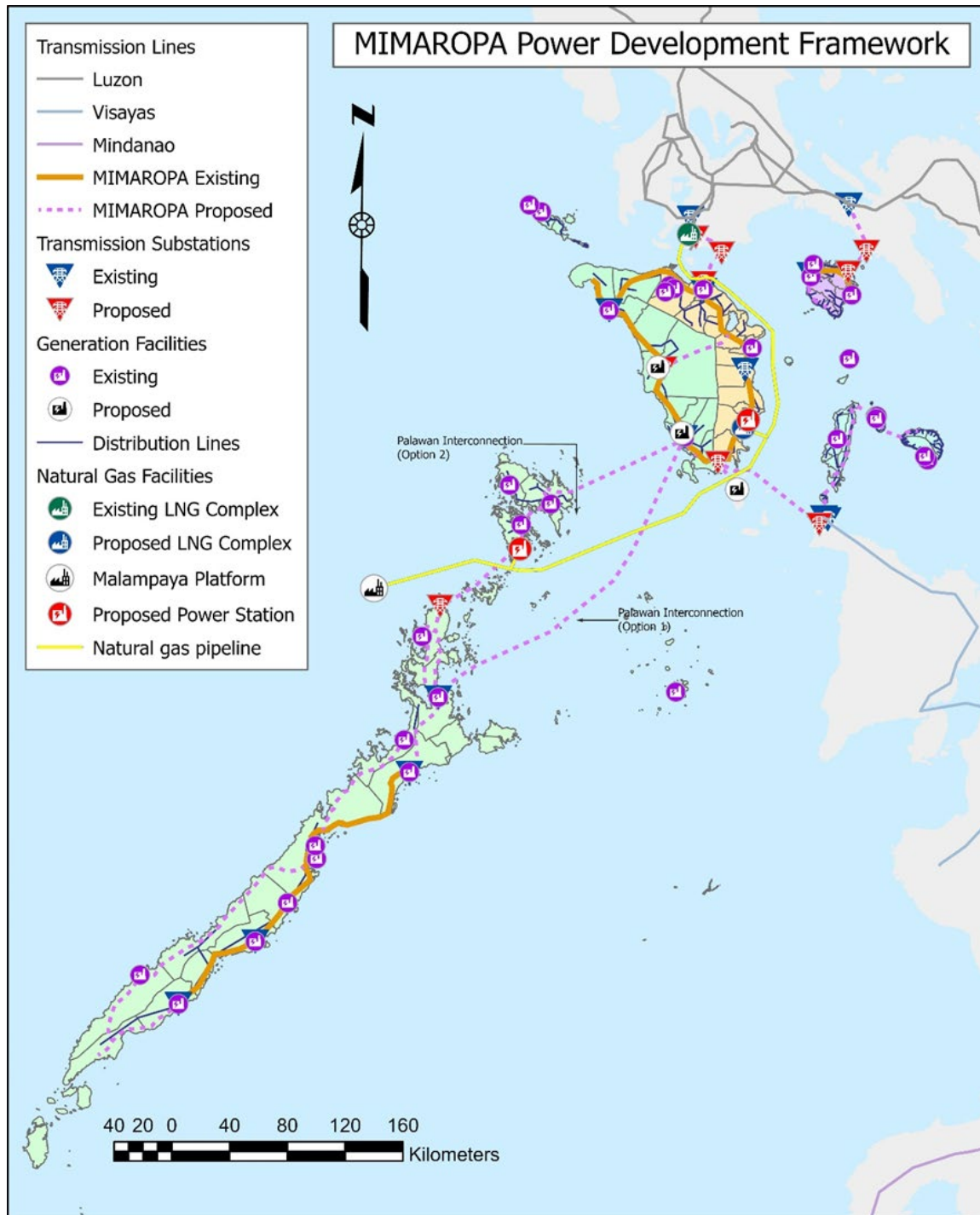
To provide affordable, accessible, reliable, and clean energy

Enhance delivery of energy by coordinating investments in interconnection to main grids, generation, transmission, and distribution

Interconnection to the Main Grid. The proposed interconnection of MIMAROPA with the main grid is envisioned to import power when required through access for bulk generation through the Wholesale Electricity Spot Market. In the long run, it will provide the means to export possible excess power once the generation potentials were developed, including RE-based plants, within the island.

Figure 13.16 shows the MIMAROPA Power Development Framework.

Figure 13.16 MIMAROPA Power Development Framework



Source: National Grid Corporation of the Philippines and National Transmission Corporation; NEDA MIMAROPA

The proposed Batangas-Mindoro, Quezon-Marinduque, Romblon-Panay, and Mindoro-Palawan interconnection projects will provide permanent and long-time solutions on the lingering power crisis in the region. It will foster economic growth by serving the growing demand of electricity in the region.

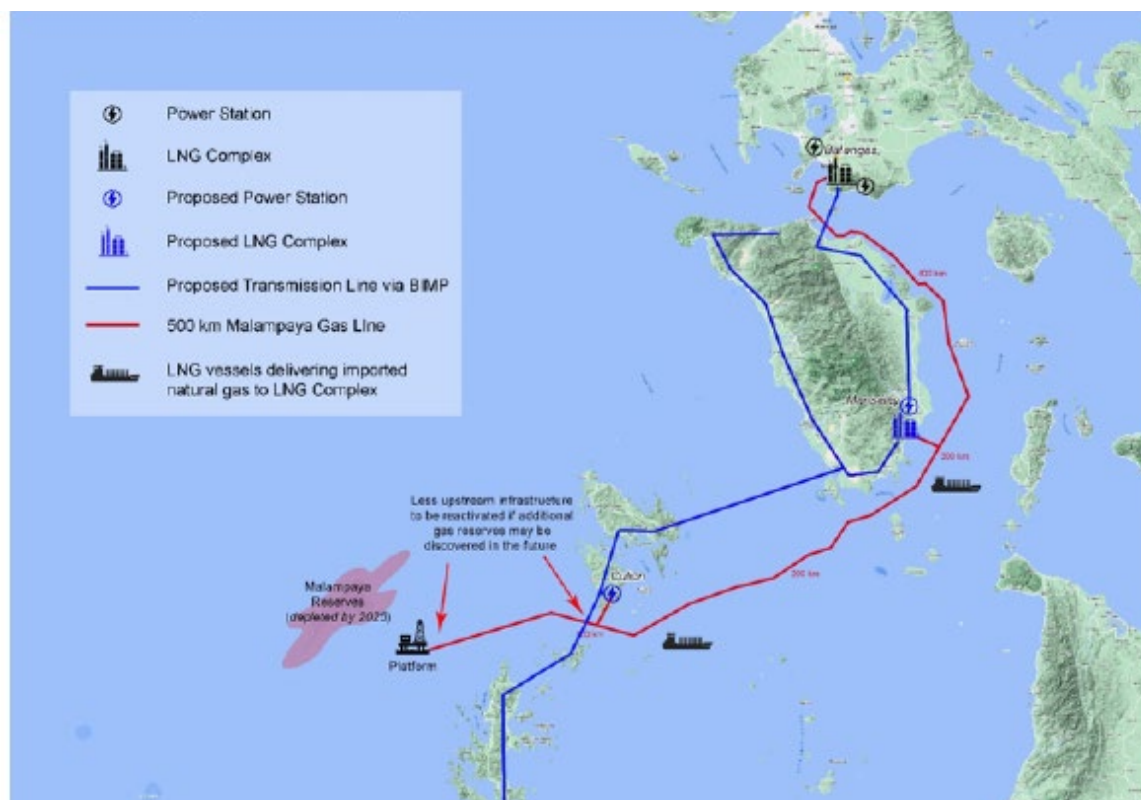
Provide an enabling environment for the market to deliver an optimal fuel mix

Oil and Natural Gas Exploration. The natural gas reserves in Northern Palawan are expected to be depleted before 2025. It would then require to import natural gas from other countries or identify other source of natural gas within the vicinity of Northern Palawan and/or Mindoro, natural gas would need

to be imported into the Philippines through an LNG complex to continue to fuel three (3) critical combined-cycle gas turbine (CCGT) power stations in Batangas, providing 2,700 MW of baseload capacity to the National Grid.

Due to the strategic implications of an LNG complex to the energy security of the Philippines, it should be located at a site that offers ease of expansion over the long-term, which is no longer readily available in Batangas Bay or in the vicinity of the Shell Tabangao Refinery due to the industrial congestion in the area; hence, Mansalay, Oriental Mindoro and Coron, Palawan as the site of the first and definitive LNG and CCGT Complex (Figure 13.17) in the Philippines that will serve the electricity consumers of Luzon, and the MIMAROPA region, and ensure the energy security of the country.

Figure 13.17 Proposed LNG Complex



Data Source: [http://shootingthebreezebywanderlust.blogspot.com/mindoros-role-in-burgeoning-philippine;](http://shootingthebreezebywanderlust.blogspot.com/mindoros-role-in-burgeoning-philippine)
NEDA MIMAROPA

Facilitate the declaration of power projects as project of national significance. Energy and power projects are of national significance as they play a crucial role in shaping a country's economy and its citizens' quality of life. A stable, reliable and affordable energy supply is essential for economic growth, job creation and promoting competitiveness. The development of energy and power projects also helps reduce dependence on foreign energy sources, increase energy security and enhance the country's overall energy mix. The implementation of these projects requires significant investment and collaboration between various stakeholders including government, private sector, communities and other stakeholders.

Institute power mix policy for power generation towards optimal portfolio to meet 24/7 electricity demand and reserve requirements with spatial and sectoral dimension. It involves considering a variety of factors, including energy mix, availability of resources, cost, and environmental impact. This can be achieved through a combination of traditional and renewable energy sources, such as hydro, thermal, nuclear, wind and solar, to create an optimal portfolio that meets the diverse energy needs of the region. The policy should also prioritize investment in transmission and distribution infrastructure to ensure a stable and reliable supply of power, as well as the integration of advanced technologies such as energy storage systems and demand response programs.

Strengthen the resiliency of energy infrastructures. Strengthening the resiliency of power and energy infrastructures requires a multi-faceted approach that involves the implementation of preventative measures, contingency planning, and investment in new technologies. This can be achieved through regular risk assessments, the adoption of robust security measures, the implementation of redundancy systems, and the development of alternative energy sources. The goal is to create a robust and resilient power and energy system that can effectively withstand any disruptions and minimize the impact on the economy and citizens.

Ensure universal access to affordable, reliable, and clean energy

Promote investment in power generation especially for renewable energy. Promoting investment in power generation, especially for renewable energy, requires a favorable policy and regulatory framework that provides certainty and stability to investors. This can be achieved through financial incentives, such as tax credits and subsidies, as well as the creation of a level playing field for different energy sources. Encouraging private sector investment through public-private partnerships, streamlining of permitting processes, and reducing bureaucratic barriers can also help spur investment in renewable energy. By creating a favorable environment for investment, the government can help accelerate the transition to a low-carbon, sustainable energy future, promote economic development and create jobs, and reduce dependence on fossil fuels.

Encourage compliance to international standards for constructing power plants and accreditation of contractors. Helps to ensure the safe and efficient operation of power facilities and protects the environment and public health. This can be achieved through the development of clear and transparent regulations, policies, and guidelines that provide a framework for the design, construction, and operation of power plants. The government can also provide incentives for companies and contractors to adopt international best practices and certifications, such as ISO and OSHA, to demonstrate their commitment to quality, safety and environmental performance. By promoting compliance with international standards, the government can enhance the credibility and competitiveness of the country's energy sector, attract investment and create jobs, while also contributing to a safer and more sustainable future.

Enhance demand side management

Pursue implementation of Energy Efficiency Act. Pursuing the implementation of an Energy Efficiency Act is an important step in reducing energy consumption and costs, while also promoting sustainable development and mitigating the impact of climate change. The act should establish clear goals and targets for energy efficiency, provide incentives for businesses and consumers to adopt more efficient technologies, and create a framework for the development and implementation of energy efficiency programs. The act should also require mandatory labeling and performance standards for energy-using products, as well as regular reporting and monitoring of energy consumption and efficiency trends. The government can play a leadership role by implementing energy-saving measures in its own operations and promoting best practices among its agencies and stakeholders.

Invest in energy innovation to respond to increasing demand and new markets for clean technology goods and services

Pursue the entry of new and emerging technologies for power generation (e.g., ocean, fuel cells, nuclear, etc.) consistent with the power mix policy. Pursuing the entry of new and emerging technologies for power generation is essential for ensuring the reliability and affordability of the energy supply and meeting the changing needs of the energy market. This can be achieved through the development of a favorable policy and regulatory environment that encourages innovation and investment in these technologies. The government can also provide technical and financial support to accelerate the commercialization of these technologies, and engage in international cooperation and collaboration to share knowledge and best practices. The entry of new

technologies should be consistent with the power mix policy, which balances the need for reliability and affordability with the goals of environmental protection and energy security.

Distribution Development Plan. In preparation for the Renewable Portfolio Standards (RPS) and the Green Energy Option Program, Distribution Utilities must provide additional information on existing and potential contestable customers for Retail Competition and Open Access (RCOA), available renewable resources, and the number of customers with net-metering (GEOP). Capital expenditure projects and financing needs should be included in their respective five-year DDPs. Through these provisions, the DOE will be able to closely monitor the operation of all distribution facilities and the progress of project implementation in close coordination with ERC.

Uniform Monthly Electric Bill Framework. To protect the public interest affected by DU and electricity supply provider rates and services, the uniform bill should reflect all corresponding charges, including but not limited to generation, transmission, and ancillary services, distribution, supply, and metering charges, universal charges, and bill deposits, subject to any rules and regulations promulgated by the ERC.

Adopting and Prescribing for the Competitive Selection Process in the Procurement by the Distribution Utilities of Power Supply Agreement for the captive market. CSP will be carried out as a clear, transparent, and fair supply procurement process, promoting competition and greater private sector participation in the provision of the least-cost, reliable, and adequate supply of electricity. It addresses the power supply contracting of the country's electric power utilities serving both on-grid and off-grid areas.

To provide enhanced support to social development

Ensure equitable access to health and education infrastructure, in partnership with private sector

Develop health infrastructure guided by the PHFDP 2020-2040. In line with the UHC Act, a health care provider network (HCPN) will be established in every province and/or highly urbanized city to ensure comprehensive and adequate provision of health care services. LGUs and private providers will work with the national government to ensure that the primary care network (barangay health stations and primary health care facilities), hospitals, standalone or specialized facilities, and other ancillary facilities (i.e., private medical outpatient clinics, infirmaries, birthing homes, dental clinics), whether publicly or privately owned, are functionally integrated within the HCPN.

A comprehensive needs assessment of critical health facilities involved in service delivery networks will be regularly conducted. The assessment results will form part of the basis for determining which facilities will be constructed, upgraded, or expanded under the Health Facilities Enhancement Program (HFEP). National government support for health infrastructure will be guided by the National Allocation Framework, which gives priority to low capacity and high gaps areas.

To ensure equitable access to quality and affordable healthcare goods and services, proposed interventions will prioritize geographically isolated and disadvantaged areas (GIDA), marginalized populations, and indigenous people communities. Multisectoral partnerships will also be pursued to deliver telemedicine, remote healthcare services, emergency medical service through ambulance and patient transport services, and other innovations for health. Approximately P37.0 million was proposed

for FY 2023-2028 to implement the Telemedicine Project in MIMAROPA.

Issues in the implementation of the BEFF will be addressed. DepEd, in coordination with LGUs, will improve the identification of classroom gaps at the local level to better inform the planning and programming, and facilitate the implementation by DPWH. DPWH will revisit the uniform pricing and specifications for school buildings to account for possible variances in prices and technical requirements by location. Procurement by lot or package will be pursued, as applicable, to encourage more bid participants.

Adopt modern learning spaces. The need to transform the education system to address the enduring education crisis in the country brings forth the need to modernize learning spaces and ensure adequate, safe, and resilient facilities for students. As such, classrooms shortages will be addressed, while adhering to ideal classroom size to maintain safety and health protocols and ensure optimal learning environment.

Universal access of schools to basic utilities such as electricity, internet and water supply will be pursued. Provision of basic facilities, including WASH facilities, libraries, and science laboratories will be ensured. Learning spaces will be designed, configured, and equipped to emulate the classroom of the future. Government allocation for education spending will be prioritized while aid and resources from private sector, non-government organizations (NGOs), civil society organizations will be sought.

The Last Mile School Program's implementation will be the region's primary concern. This program's goal is to fill the gaps in the facilities and resources available to schools in MIMAROPA's geographically isolated and disadvantaged and conflict-affected areas (GIDCA). Under the MIMAROPA Regional Development and Investment Program, DepEd MIMAROPA sought financing of approximately 10.96 billion for the program's implementation from FY 2023 to 2028.

Improve resiliency to support health and educational outcomes

In cooperation with the national government and private stakeholders, LGUs will identify locations within their jurisdiction for health facilities, school buildings and evacuation centers taking into consideration, not only accessibility and demand, but also long-term resilience to natural and anthropogenic hazards and risks including those associated with climate change. National and local government funding, coupled with multi-sectoral partnerships, will be pursued to adequately provide for the construction, retrofitting and repair of health facilities and schools/classrooms, and to withstand better the impact of hazards and calamities and minimize disruption of services/class. In every LGU there will be permanent disaster-resilient evacuation centers, equipped with adequate GEDSI-responsive basic facilities constructed for families displaced during emergencies.

Health system structures that contribute to the ability to prepare for and respond to diseases of public health concern will be established and/or strengthened. Among the top priority structures are the proposed Virology and Vaccine Institute of the Philippines, Center for Disease Prevention and Control, and the Philippine Public Health Laboratory System (PHLS).

Pursue optimal solid waste management (SWM) solutions

Facilitate clustering of LGUs to take advantage of economies of scale. DENR will assist the LGUs in consolidating their efforts, services, and resources for the purpose of delivering common facilities for waste management to take advantage of economies of scale. This will alleviate their respective budget burden for capital-intensive projects, and at the same time, enhance the financial viability of these projects and thus will make them attractive to private investors.

Explore technology options and financing schemes for SWM based on updated LGU waste data. Results

of scientific research and development, and of demonstration projects shall guide the promotion and adoption of low carbon, new modern and innovative technologies, including A menu of technology options and financing schemes for the implementation of SWM projects will be provided, taking into consideration the composition of waste per source, the availability of suitable sites, and GHG emissions avoidance and reduction targets under the country's Nationally Determined Contribution (NDC). Alongside these, waste analysis and characterization studies (WACS) will be regularly conducted.

Supporting SWM programs will be intensified.

Capacity-building programs will be undertaken to develop the technical capacities of LGUs to undertake WACS and assess technical and financial options for implementing SWM projects. Information, Education, and Communication (IEC) Campaigns will be aggressively conducted to promote greater waste diversion, thus, optimizing the use of disposal sites, and to enhance the willingness to pay for SWM services.

The Environmental Management Bureau (EMB) MIMAROPA shall strengthen the implementation of the ecological SWM and toxic substances and hazardous waste management regulations amounting to 90 million pesos for the period 2023 to 2028. A waste-to-energy (WtE) facility shall be implemented after the conduct of the ongoing feasibility study for the proposed project.

Invest in or provide financing for social infrastructure

The private sector are encouraged to provide investments in the building of hospitals, school buildings, and other social infrastructure projects. The private-public partnership is also an option in financing income generating social infrastructure projects both for the national and local government units.

Table 13.3 List of Major Programs and Projects to Expand and Upgrade Infrastructure

TITLE	PROVINCE/CITY	INVESTMENT TARGET (PHP '000)						TOTAL 2023-2028 INVESTMENT TARGET (PHP '000)
		2023	2024	2025	2026	2027	2028	
Mindoro Island Circumferential Road	Oriental Mindoro & Occidental Mindoro	288,000	0	50,000	0	0	0	338,000
Victoria-Sablayan Cross Island Road	Oriental Mindoro & Occidental Mindoro	305,000	0	115,000	0	0	0	420,000
Mindoro Super Bridge Project	Oriental Mindoro & Batangas							607,730,000*
Marinduque-Quezon Link Expressway	Marinduque & Quezon							757,940,000*
Coron-Culion Inter-Island Bridge	Coron & Culion, Palawan							4,200,000
Puerto Princesa City Viaduct	Puerto Princesa City							9,656,000
Mindoro-Batangas Interconnection Project	Oriental Mindoro & Batangas							16,870,000
Marinduque-Quezon Interconnection Project								5,320,000
Romblon-Panay Interconnection Project								14,320,000
Mindoro-Busuanga Interconnection Project								10,817,000

*estimated cost

Legislative Agenda

Table 13.4 Legislative to Expand and Upgrade Infrastructure

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Amendment of Republic Act No. 10752 The Right-of-Way Act (ROWA)	This will address difficulties in complying with the law's strict requirements (such as valuation, compensation and expropriation problems) and further expedite the implementation of infrastructure projects; to provide clearer, fairer, and simpler terms for ROW acquisition for both property owners and the Government.	DPWH
Amendment of the EPIRA Law	This revisits the policy thereby ensuring its responsiveness to the power industry. Reevaluation of the tax (VAT) base so that consumers are not taxed for the electricity they do not consume (system loss and subsidy) Strengthen the mandates of DOE, ERC, and NEA in ensuring quality, reliability, and security of the supply of electric power	DOE, ERC, NEA
Amendment of PD No. 87 (The Oil Exploration and Development Act of 1972)	This seeks to revitalize interest and encourage more drilling activity in the country	DOE, DENR, DILG, DOF
Natural Gas Law	Legislation of enabling law for the development of the Natural Gas Industry in the Philippines	DOE
Compliance to ICAO Policy / Passage of Aerodrome Safety Ordinances in MIMAROPA LGUs hosting/near airports	This will address prevailing airport safety situation in the region, and the possibility of crafting a standard local ordinance prescribing Airport Safety Standards that are compliant with International Civil Aviation Organization (ICAO) standard operational Safety, Security, Environmental Management, and Emergency Response guidelines	CAAP, LGU
National Quality Infrastructure Act	It seeks to provide the necessary Institutional apparatus to produce products and services of a prescribed national and international standards.	DTI, DA, DOST, DPWH
Department of Water Resources (DWR)	This will address the sector's weak and fragmented institutional structure by streamlining all water-related government functions and separating resource regulation from economic regulation.	NEDA
Upgrading of all hospitals in the region	The region needs to establish hospitals that are equipped with specialized medical treatments for heart and kidney diseases and cancer. This would mean that all public hospitals in the region should be upgraded. For example, the passage into law of the bill converting Oriental Mindoro Provincial Hospital into MIMAROPA Regional Hospital is one of the projects which will address health issues in the region.	DOH, LGU
Creation of the Virology and Vaccine Institute of the Philippines (VIP)	This bill seeks to establish the VIP which focus on research on viruses, the development of vaccines, and the operation of a virology laboratory, virus gene bank, and virus genome laboratory, among others.	DOST, DOH, DA

Targets

Table 13.5 Indicator Matrix

Indicator	Baseline		Annual Plan Targets					End of Plan Target	Responsible Agency
	Year	Value	2023	2024	2025	2026	2027		
Transportation/Roads/Bridges									
Percentage of paved national roads (secondary)	2021	99.23%	100%	100%	100%	100%	100%	100%	DPWH
Percentage of paved national roads (tertiary)	2021	98.78%	100%	100%	100%	100%	100%	100%	DPWH
Length of National Roads (lane-kms)	2021	5,584	6,142	6,756	7,432	8,175	8,993	9,892	DPWH
Length of permanent bridges along national roads	2021	22,972	23,038	23,105	23,171	23,237	23,304	23,370	DPWH
Transportation/Motor Vehicles									
Number of Motor Vehicles Registered	2021	231,804	280,486	308,535	339,389	373,327	410,660	451,725	LTO
Registered Vehicles per 1000 population	2021	70.51	82.30	88.91	96.06	103.77	112.11	121.12	LTO/PSA
Licenses and Permits Issued	2021	59,069	62,022	65,124	68,380	71,799	75,389	79,158	LTO
Transportation/Water Transport									
Domestic Cargo throughput	2021	4,174,295.00	4,299,524.00	4,424,753.00	4,549,982.00	4,675,210.00	4,800,439.00	4,925,668.00	PPA
Foreign Cargo Throughput	2021	6,100,773	6,405,812.00	6,710,850.00	7,0158,89.00	7,320,928.00	7,625,966.00	7,931,005.00	PPA
Number of Shipcalls	2021	33,301	34,966.05	36,631.10	38,296.15	39,961.20	41,626.25	43,291.30	PPA
Number of Passengers	2021	2,061,786	2,164,875.00	2,267,965.00	2,371,054.00	2,474,143.00	2,577,233.00	2,680,322.00	PPA
Transportation/Air Transport									
Aircraft Movement	2021	6,306	No target	No target	No target	No target	No target	No target	CAAP
Passenger Traffic	2021	181,562	1,966,456	2,408,021	2,727,494	2,808,317	3,048,240	3,248,389	CAAP
Air Cargoes (in MT)	2021	14,706.96	20,436.29	21,992.70	23,016.93	23,469.59	24,303.30	25,041.75	CAAP
Digital Infrastructure									
No. of areas with free public Wi-Fi access	2021	139	437	No target	No target	No target	No target	No target	DICT
Water Supply and Sanitation									
Proportion of households with access to safe water supply	2021	84.37%	86%	88%	90%	92%	94%	96%	DOH
Water supply (HH with Level III) increased	2021	36.97%	39%	42%	45%	48%	51%	54%	DOH
Level of HH sanitation increased	2021	77.41%	80%	83%	86%	89%	92%	95%	DOH
Irrigation									
National Irrigation System (NIS) Developed Area (ha) increased	2021	35,817.46	39,399.21	41,190.08	42,980.95	44,771.83	46,562.70	48,353.57	NIA
Communal Irrigation System (ha) increased	2021	49,621.08	54,583.19	57,064.24	59,545.30	62,026.35	64,507.40	66,988.46	NIA
Cropping Intensity (Cumulative) %	2021	187.88	190	190	191	191	192	192	NIA

INDICATOR	BASELINE		ANNUAL PLAN TARGETS					END OF PLAN TARGET	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027		
Ratio of Actual Irrigated Area to the total potential irrigable area increased (percent cumulative)	2021	90.14	92	93	94	95	96	97	NIA
Percent level of Irrigation Development increased	2021	77.87	80	80.14	81.5	83.14	85.54	85.54	NIA
Flood Control									
Number of flood control projects along principal river basins increased	2021	94	99	105	111	117	123	129	DPWH
Power/Energy									
Status of Energization (percent of Brgys. Energized)	2021	94.77	100	100	100	100	100	100	DOE
Percentage of HHs provided with electric power supply*	2021	95.24	97.37	97.99	98.21	99.02	99.54	100	DOE
Regional Energy Consumption, GWh	2021	997.76	1,211.88	1,284.77	1,363.71	1,444.81	1,528.33	1,614.54	DOE
Distribution loss (percent) not exceed ERC-approved distribution system loss cap of 12percent	2021	10.24	9.26	9.21	9.18	9.14	9.11	9.07	DOE
Maintain operating margin or net system reserve above minimum prescribed in the Phil Small Grid Guidelines (10percent)	2021	31.75	≤10percent net operating margin	≤10percent net operating margin	≤10percent net operating margin	≤10percent net operating margin	≤10percent net operating margin	≤10percent net operating margin	DOE/NEA
Renewable Energy capacity (MW, cumulative)	2021	50.9	79.8	79.8	85.8	85.8	85.8	85.8	DOE
Electricity Consumption per Capita*	2021	0.00149	0.00175	0.00184	0.00194	No target	No target	No target	DOE
Frequency of power interruption*	2021	23.15	≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	DOE/NEA
Duration of power interruption*	2021	1,621	≤ 3,375	≤ 3,375	≤ 3,375	≤ 3,375	≤ 3,375	≤ 3,375	DOE/NEA
Price of residential electricity reduced*	2021	9.12	No target	No target	No target	No target	No target	No target	DOE
Share of affordable renewable energy in the power generation mix increased*	2021	12.43	13.38	14.19	15.3	15.81	16.72	17.43	DOE
Social Infrastructure									
Barangay health station to barangay ratio	2021	1:3,268	-	-	-	-	-	-	DOH
Hospital-bed to population ratio	2021	1:1,947	-	-	-	-	-	-	DOH
Pupil-classroom ratio	2020	1:27	1:30	1:30	1:30	1:30	1:30	1:30	DEPED
Student-classroom ratio	2020	1:46	1:40	1:40	1:40	1:40	1:40	1:40	DEPED
LGUs served by sanitary landfill	2019	10	-	-	-	-	-	-	EMB

14

**Ensure Peace and Security
and Enhance Administration
of Justice**

ENSURE PEACE AND SECURITY AND ENHANCE ADMINISTRATION OF JUSTICE

The attainment of the MIMAROPA's vision as the Destination of Choice rests upon securing a peaceful environment where life rights and properties are protected. Thus, it is important to promote a whole-of-society approach and create a conducive and favorable environment for economic and social development of the region.

Likewise, an efficient administration of justice inspires trust and confidence among stakeholders through integrity, fairness, and accessibility.

Sub-chapter 14.1 Ensure Peace and Security

Maintaining a peaceful, safe, and orderly environment is critical in ensuring sustained economic development. It is crucial in creating an environment where people feel safe to live, work, and do business. To attain this, however, concerted efforts, strong collaborations, and sustained actions among all concerned stakeholders from both the public and private sectors are necessary.

Assessment and Challenges

Geographic Location

Internal Armed Conflicts in MIMAROPA. MIMAROPA Region recorded a significant decrease in internal armed group-initiated violent incidents in the past years. The affected barangays continued to decrease from 1.78 percent in 2017 to 0.6 percent in 2021, which can be attributed primarily to the successful implementation of the Whole-of-Nation approach.

All provinces in the region have created their respective Provincial Task Force to End Local Communist Armed Conflict (PTF ELCAC). Out of 71 municipalities, 54 have established

Municipal Task Force (MTF) ELCAC. This led to the declaration of the New People's Army (NPA) as persona non-grata across the region, which limited their movement in the area. Localized peace arrangements (LPEs) were also established to empower local officials as the frontlines for peacebuilding process.

These initiatives were reinforced with the heightened presence of security forces in armed conflict-affected areas. Armed Forces of the Philippines (AFP) was able to dismantle majority of the communist terrorist groups (CTGs) such as sub-regional military area guerrilla in Palawan and CPP-NPA-Terrorists (CNTs) in Mindoro Island.

Despite these efforts, there are still some internal armed group-initiated violent incidents recorded in the region, which included arson of properties of private construction companies, harassment on both

civilians and government officials, and ambushes of law enforcement personnel.

The MIMAROPA region recorded a total of 506 surrendered rebels from 2017 to 2021. This could be attributed to the successful implementation of peacebuilding program by the government such as the Payapa at Masaganang Pamayanan (PAMANA) which improved community access to socioeconomic interventions and strengthened community capacities to address conflict issues and peace and the Enhanced Comprehensive Local Integration Program (E-CLIP), a national reintegration program for former rebels (FRs) aimed at achievement and realization of peaceful and permanent closure of all armed conflicts with the non-stage groups.

The MIMAROPA Regional Task Force (RTF) ELCAC identified 69 priority convergence areas in the provinces of Occidental Mindoro, Oriental Mindoro, and Palawan following the criteria specified in the Joint Memorandum Circular No. 01-2019 on Executive Order No. 70, s. 2018. These 69 areas were prioritized by the national government in the provision of basic health and social services through the Local Government Support Fund-Support to Barangay Development Program (LGSF-SBDP).

Despite improvement in the number of surrendered rebels, the CTGs sustained their efforts to re-establish insurgent's influence. The IP communities in Mindoro Island remained the primary target of CTGs to recruit new members for their armed revolution. With the lack of awareness of the IPs on ancestral land issues and insufficient delivery of basic socioeconomic services, IP communities are prone and vulnerable to deceptions and radicalization.

The filing of cases against surrendered rebels in the province of Palawan is one of the emerging challenges in persuading CTGs to abandon the life of the armed revolution. With the resurfacing of former rebels, crimes in which they were formerly involved were also filed against them.

Public safety and security situation. MIMAROPA has sustained a generally peaceful, safe, and secure environment with the downtrend in crime incidents for the past years. The crime volume in MIMAROPA decreased by 26.84 percent from 6,252 in 2017 to 4,574 in 2021. The region's average monthly crime rate in 2021 decreased by 5.38 percentage points from 2017's 16.99 percent. Crimes that showed significant

decrease included carnapping, robbery, rape, and physical injuries.

The previous administration strengthened its law enforcement agencies through the aggressive implementation of anti-criminality operations against wanted persons and loose firearms. The fight against illegal drugs remained one of the top priorities of all concerned stakeholders in the region. As one of the root causes of criminality, concerned law enforcement agencies intensified their campaigns against production, selling, and use of illegal drugs. This remarkably decreased the number of illegal drug-affected barangays in the region.

The active participation of the community played an important role in ensuring security, public order, and safety. All barangays in MIMAROPA have established and maintained their Barangay Peacekeeping Action Teams (BPAT), Barangay Anti-Illegal Drug Abuse Councils (BADAC), and Barangay Information/Intelligence Networks (BIN). As the prime movers of the barangay peacekeeping operations, these community volunteers have been proactive in community policing, conflict resolution, and crisis management which included disaster mitigation.

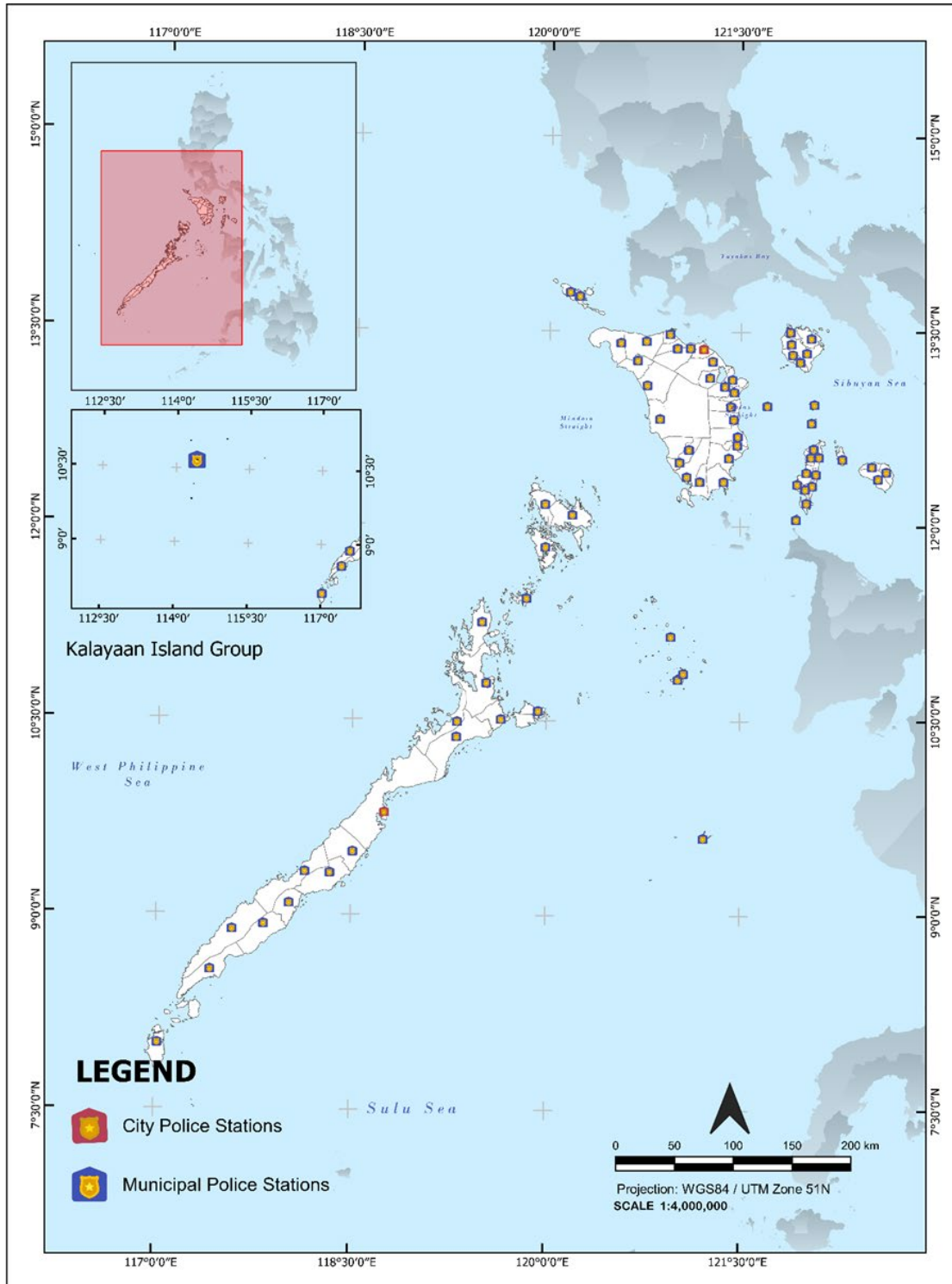
The implementation of strict community quarantine following the declaration of a national health emergency due to COVID-19 pandemic contributed to the decrease in criminality in the region. Community checkpoints and curfews were established in every barangay that limited the movement of people to mitigate and reduce the spread of the virus.

Natural and human-induced disasters have been affecting the social and economic condition of the region in the past years. Several typhoons such as Typhoon Rolly, Quinta, and Ulysses in 2019 and Typhoon Odette in 2021 severely affected the region, which left a total of 59 casualties and heavy damages to infrastructure, agriculture, and settlements. Mitigation efforts and interventions were established through strengthened coordination among Disaster Risk Reduction Management (DRRM) key players. LGUs were empowered in terms of disaster preparedness and response. In 2022, a total of 71 municipal police stations (MPS) and 2 city police stations were constructed, 18 evacuation centers were completed, 60 fire stations were established, and 128 fire trucks were procured. (Refer to Figure 14.1.1, 14.1.2, and 14.1.3 for the location map of municipal and city police stations, evacuation centers, and fire stations)

Maritime Situation in the West Philippine Sea. The West Philippine Sea (WPS) remained the primary fishing ground for majority of the fishermen in MIMAROPA, particularly

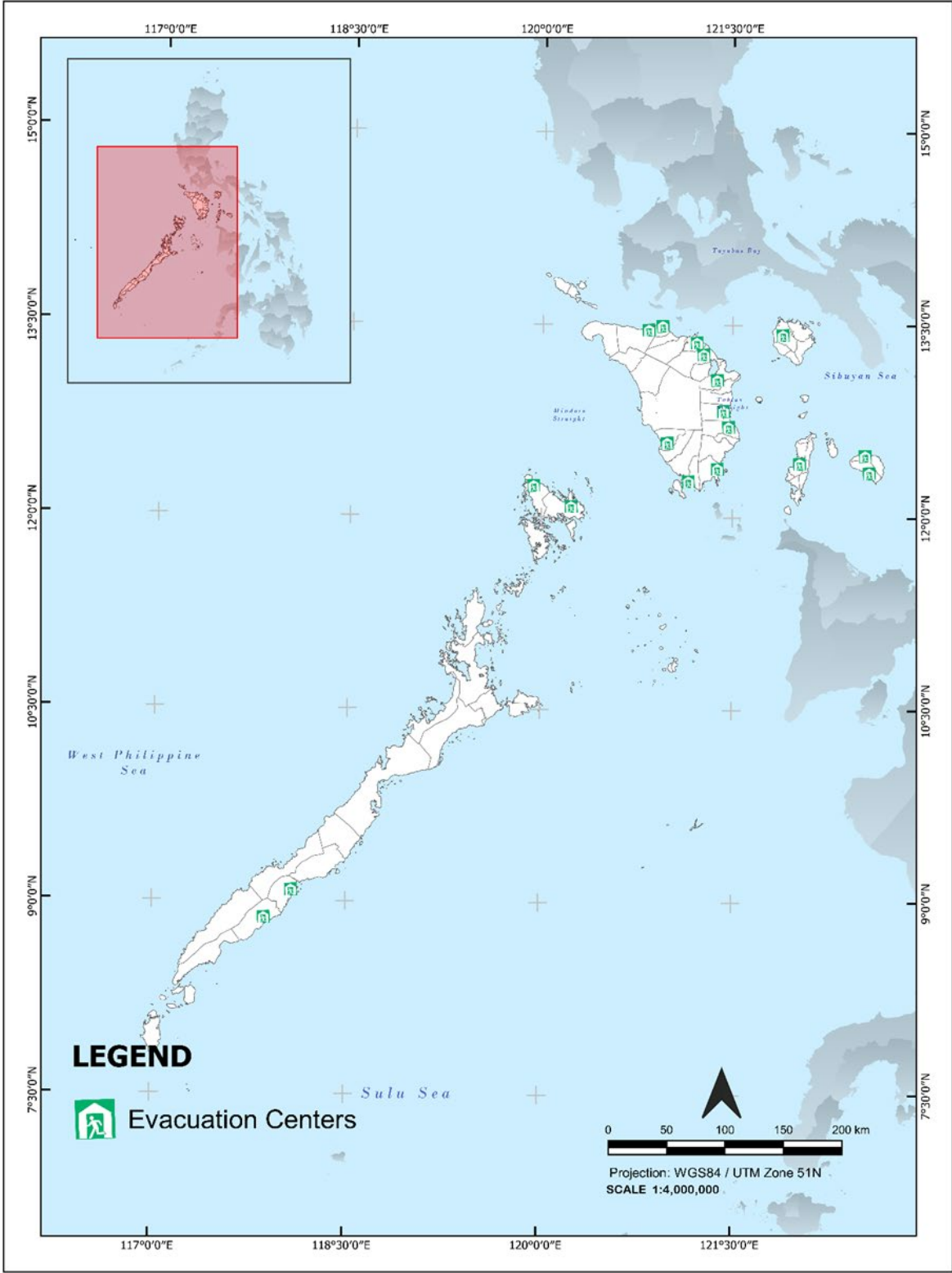
in the provinces of Palawan and Occidental Mindoro. The increasing tension in the WPS limited the fishing area and made fishing operation more dangerous.

Figure 14.1.1 Location of Municipal and City Police Stations, MIMAROPA, 2022



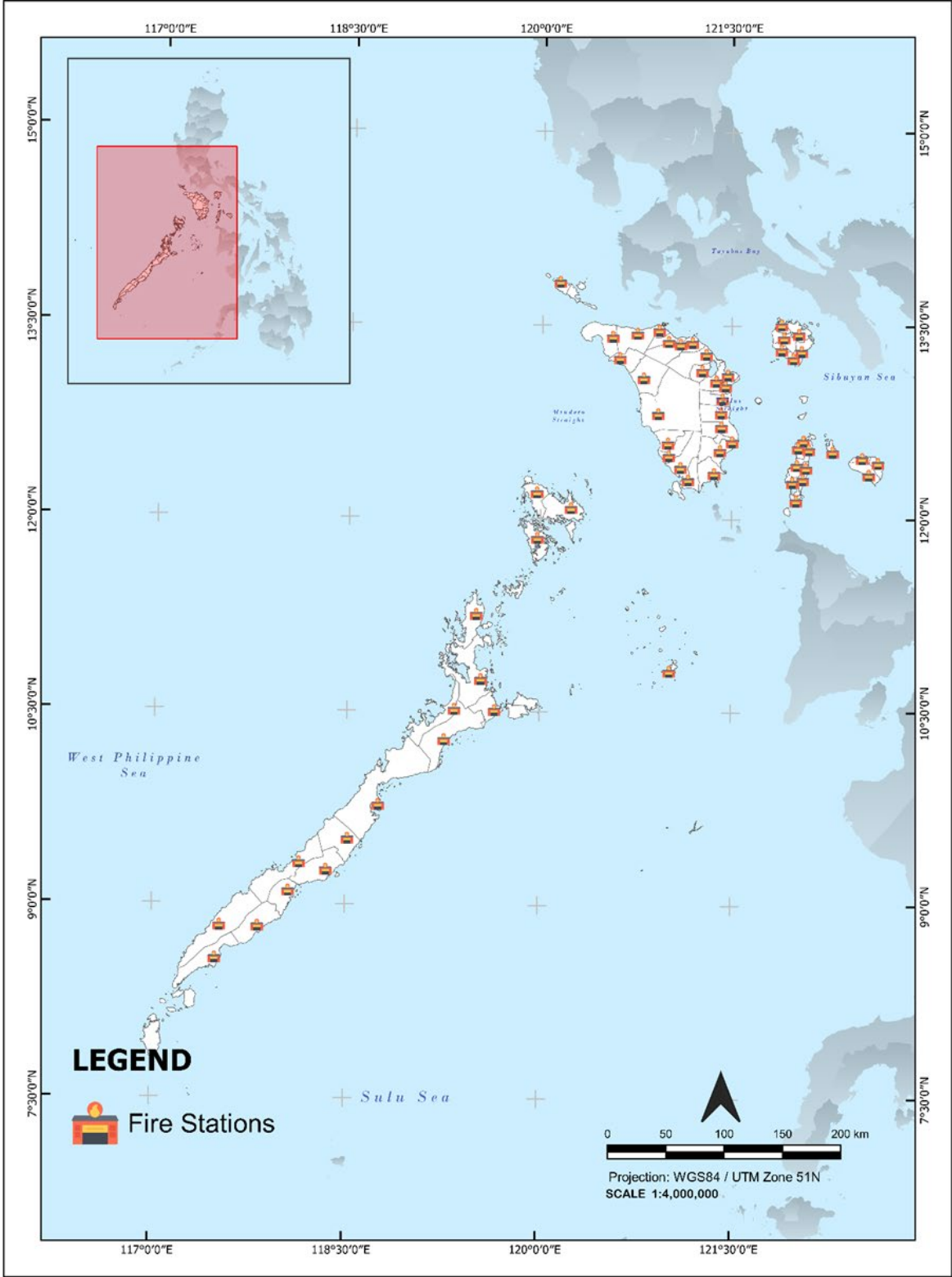
Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

Figure 14.1.2 Location of Evacuation Centers, MIMAROPA, 2022



Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

Figure 14.1.3 Location of Fire Stations, MIMAROPA, 2022



Source: Generated by NEDA MIMAROPA GIS Team (PFPD)

Table 14.1.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END OF PLAN TARGET	MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028			
100% of Barangay Development Program beneficiary-barangays provided with socioeconomic interventions achieved and maintained	2022	"78% 54 out of 69 priority barangay identified by RTF-ELCAC"	100%	100%	100%	100%	100%	100%	100%	RTF ELCAC progress report	RTF-ELCAC, DILG
Zero communist terrorist groups (CTG) initiated violent incidents achieved and maintained	2021	3	0	0	0	0	0	0	0	AFP admin data	AFP
Zero insurgency-affected barangays achieved and maintained	2021	9	0	0	0	0	0	0	0	AFP admin data	AFP
100% barangays affected by internal armed conflict cleared	2021	99.38%	100%	100%	100%	100%	100%	100%	100%	AFP admin data	AFP
Average monthly index crime rate reduced (SDG Indicator)	2021	13.14%	12.50%	12.30%	12.10%	11.90%	11.70%	11.50%	11.30%	PNP crime statistic report	PNP
Percentage of families that feel safe walking alone around the area they live after dark increased (SDG Indicator)	2020	96.50%	96.90%	97.10%	97.30%	97.50%	97.70%	97.90%	98.10%	Annual Poverty Indicators Surveys (APIS)	PSA, PNP
100% drug-cleared barangays achieved and maintained	2021	1,332	1,460	1,460	1,460	1,460	1,460	1,460	1,460	PNP crime statistic report	PNP
Zero casualties due to natural disaster achieved and maintained	2021	54	0	0	0	0	0	0	0	Situational Reports	OCD
Zero casualties due to human-induced disaster achieved and maintained	2021	15	0	0	0	0	0	0	0	Situational Reports	OCD, AFP, PNP, BFP
Ideal police-to-population ratio achieved and maintained	2021	1:4,134	1:500	1:500	1:500	1:500	1:500	1:500	1:500	PNP admin data	PNP
Ideal firefighter to population ratio achieved and maintained	2022	1:2,910	1:2,000	1:2,000	1:2,000	1:2,000	1:2,000	1:2,000	1:2,000	BFP admin data	BFP

Sources: AFP, PNP, BFP, MIMAROPA RTF ELCAC, and 2021 MIMAROPA Regional Development Report

Strategies

Figure 14.1.4 outlines some of the strategies that will ensure attainment of peace and security in the MIMAROPA region.

Figure 14.1.4 Strategy Framework to Ensure Peace and Security



Conflict-affected/vulnerable areas protected and developed

Reintegrate rebel surrenderers into the community. To maintain the increasing number of surrendered rebels in the region, there is a need to develop a strategic communication plan to entice the members of armed threat groups to abandon the life of violence and return to civilian life. Local peace and order councils (POC) will be strengthened through the development of a de-radicalization program for conflict-affected communities.

To ensure reintegration of surrendered rebels into mainstream society and becoming productive members of their communities, the government shall continue and improve initiatives and interventions like E-CLIP that will provide surrendered rebels with equal opportunities to basic socioeconomic services and livelihood programs.

The government shall also embark on programs that will improve the capacity of social workers and other relevant government agencies in dealing with former combatants and child soldiers.

Strengthen community development for affected barangays. The government will continue the implementation of programs in barangays affected with armed conflicts such as LGSF-SBDP, particularly in the provinces of Oriental Mindoro, Occidental

Mindoro, and Palawan. Improved transport access in armed conflict areas through infrastructure connectivity projects such as farm-to-market roads and bridges will facilitate the movement of people and agricultural products to boost local economic activities.

Moreover, the government will provide conflict-affected communities with access to basic utilities like power connection, clean and safe drinking water, and internet connection that are vital to the improvement of general well-being.

Furthermore, empowerment of communities and continuing dialogues between and among peace stakeholders, local peace councils, and organized groups will be pursued along with the broad-based participation of the whole community in addressing the root cause of insurgencies and armed conflicts in the region.

Public safety and security ensured

Improve law enforcement and public safety facilities, equipment, and operability. To strengthen law enforcement capabilities, the government will embark on programs that will increase police presence in communities with the attainment of 1:500 police-to-population ratio. The PNP modernization program will continue to give stronger emphasis on professionalization, rights-based policing, and improved capability against

traditional and non-traditional security threats. The program will also provide communities with highly efficient, innovative, and competent police services. Likewise, LGUs will be enjoined to donate land for the construction of MPS and other law enforcement facilities in every municipality. Policing mechanism will be reinforced with the active participation of BPATs, BADACs, civil society organizations, and other community volunteers. The region shall invest on programs and projects that will increase the number of law enforcement personnel and infrastructure facilities, particularly in the Kalayaan Island Group. Philippine Coast Guard will strengthen its presence in the WPS to safeguard the region's exclusive economic zone (EEZ) and provide support to fisherfolk.

Enhance anti-drug inter-agency cooperation. Strengthening the commitment of all concerned stakeholders to a holistic campaign against illegal drugs will definitely boost the approaches and interventions of the government. The region will support the institutionalization of the creation of Anti-Drug Abuse Councils. LGU will provide the corresponding budget allocation for the operations of the councils and the conduct of

other anti-illegal drug activities, among others. This will be reinforced with the implementation of Balay Silangan Program that aims to adopt the implementation of a family-based in-house reformation. The program will provide intervention, counselling, and livelihood with the objective of helping drug offenders to become productive and law abiding citizens are re-integrated into society.

Enhance community awareness of disaster risk reduction and management. To improve interventions and efforts in mitigating the impact of natural and human-induced disasters, there is a need to strengthen the institutional capacity of DRRM at the regional and local levels. Community participation shall be promoted by mainstreaming DRRM that will enable awareness on preparedness measures, impacts of particular disasters, as well as government's plans. There is also a need for more disaster response workers in government agencies and LGUs with advanced capacity and capability building on disaster preparedness and humanitarian assistance and disaster relief (HADR). Increasing the number of DRRM facilities, equipment, and facilities will also be prioritized.

Table 14.1.2 List of Major Programs and Projects

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (PHP '000)						TOTAL 2023-2028 INVESTMENT TARGET (PHP '000)
		2023	2024	2025	2026	2027	2028	
Communicating for Perpetual and End for Extreme Violence and Forming Alliance Towards Positive Peace and Enriched Communities (C4PEACE)	"Occ. Mindoro Or. Mindoro Palawan"		4,444.00					4,444.00
Enhanced Comprehensive Local Intergration Program (ECLIP)	"Occ. Mindoro Or. Mindoro Palawan"							
Implementation of Barangay Drug Clearing Program	Regionwide	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00	12,600.00
Construction of Municipal Police Stations	Regionwide		44,730.00					44,730.00
Construction of WesCom Administrative Building, Barracks, and Water System	Palawan		105,000.00					105,000.00

Legislative Agenda

Table 14.1.3 Legislative Agenda to Ensure Peace and Security

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Anti-Drug Abuse Council Enabling Law/ Ordinances	This will institutionalize the creation of Anti-Drug Abuse Councils in every local government unit in MIMAROPA. It will provide for the corresponding budget allocation for the operations of the Councils and the conduct of other anti-illegal drug activities, among others. Local ordinances creating/activating local anti-drug abuse councils will be pursued in the region. This will ensure that policies and programs relative to anti-drug abuse are mainstreamed and implemented at the local level.	PDEA

Subchapter 14.2 Enhance Administration of Justice

This chapter provides a general assessment of the justice system in the region. Collaboration among relevant agencies is vital in order to build credibility and gain people's confidence. Digitalization of the justice system is also sought as the region adapts to the new normal brought about by the pandemic. Enhanced and expanded access to speedy and fair justice system is expected to minimize doubt and dissatisfaction. Living conditions of PDL inside the jails and correctional facilities are envisioned to improve as well.

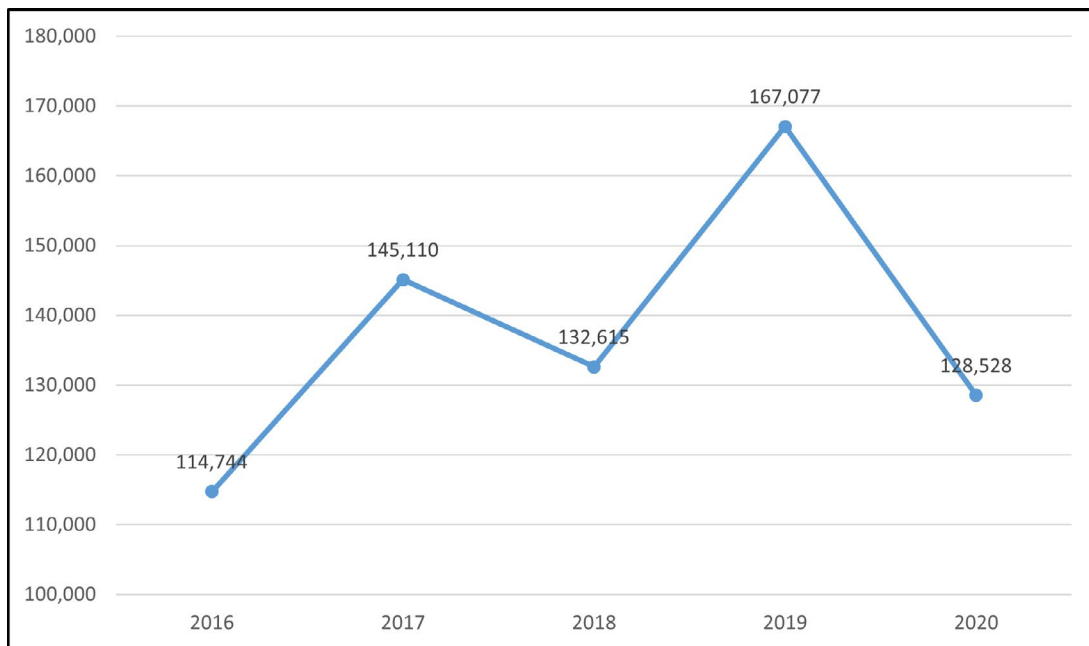
Assessment and Challenges

Improvement in people's access to speedy and fair administration of justice has been slow for the region. The number of indigent clients provided with legal assistance increased from 114,744 in 2016 to 128,528 in 2020. Despite more indigent clients that were provided with legal assistance, the

upward trend was observed until 2020 when the pandemic spread throughout the country. Those were either acquitted, benefitted from demurrer to evidence granted, benefitted from cases provisionally and permanently dismissed, granted probation, benefitted from motion to quash granted, released on recognizance, or released prisoners.

Aside from the COVID-19 pandemic, the region's unique geographical characteristics remained to be a challenge in accessing the judicial system.

Figure 14.2.1 Number of Indigent Clients Provided with Legal Assistance, MIMAROPA 2016-2020



Source: Public Attorney's Office (PAO) MIMAROPA

region's capacity to enhance the delivery of judicial services to MIMAROPAns was still hampered by the COVID-19 pandemic. This scenario was also seen in the favorable disposition of cases where an

Being a region composed of island provinces and municipalities, some courts were unserved or closed due to their location and proximity from the town proper. This was coupled with the shortage of lawyers,

judges, prosecutors, evidence storage facilities, and paper-based documentation. These factors are also major contributors to case congestion in courts.

In 2022, the Supreme Court (SC) opted to do a remote bar examination to accommodate lawyer aspirants from different places while border restrictions are in place due to the pandemic. It recorded not only the highest turnout but also the highest passing rate ever with 72.28 percent (8,241 out of 11,402). Apart from this, process innovations by the justice system were also implemented to adapt to the new normal situation. Electronic or virtual consultations and even virtual hearings were done by the lawyers and prosecutors. On penology, the Bureau of Jail Management and Penology (BJMP) and Bureau of Corrections (BuCor) implemented a virtual visitation system to avoid exposure of PDL in the region's jail and prison facilities to the pandemic.

In terms of penal administration, overcrowding in jail and prison facilities posed a challenge in preventing the PDL to be exposed from diseases like COVID-19.

As of September 2022, there are 19 BJMP-manned jails in the region, only one of which is a female dormitory. The 19 BJMP-manned jails are composed of 16 district jails, two city jails, and one municipal jail. In terms of correctional facilities, there are two facilities in the region, namely, Sablayan Prison and Penal Farm (PPF) in the municipality of Sablayan, Occidental Mindoro, and Iwahig PPF in Puerto Princesa City in Palawan.

All barangays in the region have established Lupong Tagapamayapa. However, the challenge is how to sustain and ensure that the local justice councils are able to attend to the concerns of their constituents.

The congestion rate in BJMP-manned jails in the region was recorded at 120 percent in September 2022. On the other hand, the BuCor recorded a 287 percent congestion rate in Iwahig PPF in Palawan and a 143 percent congestion rate in Sablayan PPF in Occidental Mindoro.

Welfare development programs are beneficial to PDL, as these help in their reformation and in the improvement of the way of living inside the jail and prison facilities. The following development programs were implemented in jails and prison facilities in MIMAROPA: a) livelihood; b) education; c) behavioral management; d) interfaith; e) culture and sports; f) paralegal services; g) health services; and, h) after-care programs.

On 26 May 2021, President Rodrigo R. Duterte signed the Height Equality Act or Republic Act No. 11546. The new landmark law lowers the height requirements to enter the uniformed services from five feet and four inches to five feet and two inches for males and five feet and two inches to five feet for females, including police, fire, and jail bureaus, to boost recruitment in the uniformed sector.

Generally, the COVID-19 pandemic rose to be the primary challenge for the justice sector in the region. Relevant agencies strived to adapt to the new normal by implementing digitalized programs and processes to ensure the continuity of delivery of services. To address possible issues arising from those innovations, interconnectivity and ICT infrastructure support in the region are necessary.

Targets

To attain an enhanced justice system in the region, core indicators which will be monitored annually were identified. MIMAROPA shall have enhanced access to the civil and criminal justice systems as well as the penal administration with an annual increase of 10 percent until 2028. There should be an increasing number of PDL who benefitted from welfare and development programs; public attorney-to-court ratio at 1:1; jail officer-to-PDL ratio at 1:7; and decreasing jail congestion rate. All barangays shall continue implementing their Lupong Tagapamayapa.

Figure 14.2.2 Location of Jail and Prison Facilities, MIMAROPA, 2022

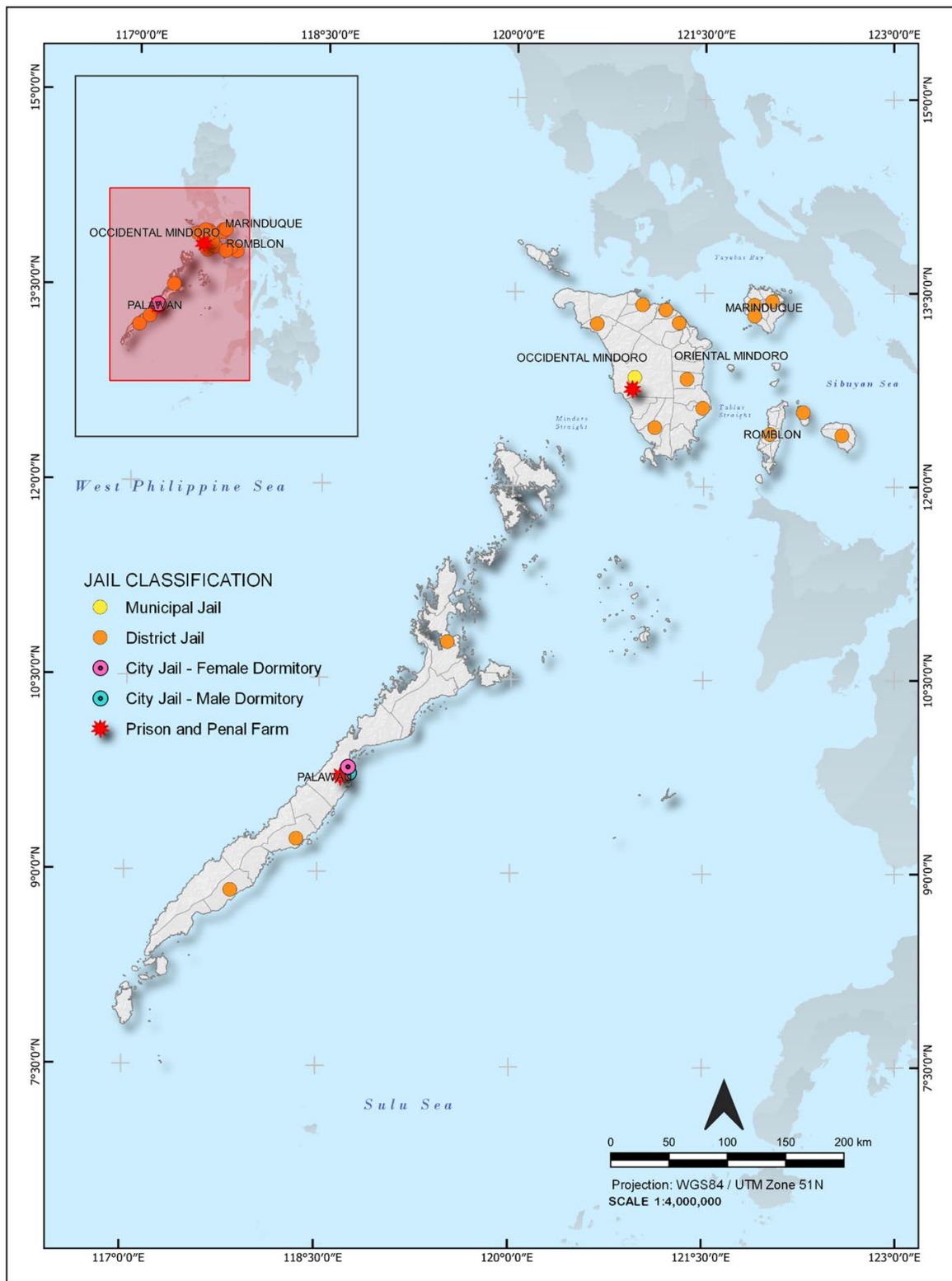


Table 14.2.1 Indicator Matrix

INDICATOR	BASELINE		ANNUAL PLAN TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2022	2023	2024	2025	2026	2027	2028		
% Increase in the number of indigent clients provided with legal assistance grew at an annual rate of 10%	2020	[23.07%]	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	Agency Accomplishment Report	PAO MIMAROPA
% Increase in favorable disposition rate of cases grew at an annual rate of 10%	2020	[11.89%]	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	10% increase from previous year	Agency Accomplishment Report	PAO MIMAROPA
Ideal public attorney-to-court ratio achieved and maintained	2020	01:01.8	01:01.7	01:01.5	1:01	1:01	1:01	1:01	1:01	Agency Accomplishment Report	PAO MIMAROPA
Number of barangays with Lupong Tagapamayapa maintained	2021	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	Agency Accomplishment Report	DILG MIMAROPA
Number of PDL benefitted from welfare and development programs increased	2020	2,239	2,463	2,709	2,980	3,278	3,606	3,967	4,363	Agency Accomplishment Report	BJMP MIMAROPA, BuCor
Ideal jail officer-to- PDL's population ratio achieved and maintained	2020	1:12	1:10	1:07	1:07	1:07	1:07	1:07	1:07	Agency Accomplishment Report	BJMP MIMAROPA, BuCor
Jail congestion rate decreased at an annual rate of 10%	2020	123%(actual congestion rate)	10% decrease from previous year	10% decrease from previous year	10% decrease from previous year	10% decrease from previous year	10% decrease from previous year	10% decrease from previous year	10% decrease from previous year	Agency Accomplishment Report	BJMP MIMAROPA, BuCor

Sources: PAO MIMAROPA, DILG MIMAROPA, BJMP MIMAROPA, and BuCoR

Strategies

Figure 14.2.2 outlines the strategies that shall be pursued to enhance administration of justice and shows the following desired outcomes for the region: i) access to civil and criminal justice system enhanced and ii) penal management and administration improved.

Figure 14.2.3 Strategy Framework to Enhance Administration of Justice


Access to civil and criminal justice systems enhanced

Increase access to the justice/legal system. Programs that will widen the reach of the justice system shall be pursued. MIMAROPA region consists of island municipalities and provinces. Traveling to town proper and urban centers to process transactions including legal transactions can be troublesome in some areas in the region. The same goes for stakeholders in the judiciary like lawyers and judges who have difficulty in reaching isolated areas.

Given this, the region will pursue programs and projects that would address interconnectivity issues as well as availability measures such as the justice infrastructure program, which would establish justice hubs that house courts, legal aid clinics, and offices for prosecutors and public attorneys, police stations, and jail facilities. As an archipelagic region, setting up justice hubs would be beneficial as this would serve as a one-stop shop for all of the concerns relating to civil and criminal justice system in the region. The justice sector in the region will also pursue the establishment of Justice on Wheels Program. This would provide better access to legal aids and consultations in far-flung areas through mobile caravans. The expansion of PAO 24-hour hotline, e-warrant, and e-subpoena system of PNP shall also be intensified.

Enhance case disposition system. The COVID-19 pandemic has allowed the government to enhance its processes through digitalization. While courts started to implement virtual hearings and consultations, digitalization of its processes such as documentation of cases as well as storage of evidence will be improved. This can be achieved by the provision of infrastructure support for the establishment of storage facilities and the implementation of a central digitalized documentation system in the judiciary.

The region will also pursue measures to address fragmentation in the justice system and improve coordination and collaboration among justice sector stakeholders through the creation of a justice sector coordinating body, or Justice Zones, in the region. This institution shall be composed of the Department

of Justice (DOJ), DILG, Parole and Probation Administration (PPA), PNP, and National Bureau of Investigation (NBI) as well as penal management institutions. The Justice Sector Coordinating Council (JSCC) plans to establish in Puerto Princesa City, the first Justice Zone in the region in 2023. The judiciary's human resource capacity shall be also improved. To support this, the recruitment of government lawyers will be made vigorous. The institutionalization of remote bar examinations to accommodate more qualified lawyer aspirants will be pursued. Strict implementation of the Judges-At-Large Act of 2019 or Republic Act No. 11459 will also be monitored.

Penal management and administration improved

Improve PDL's welfare and development. Continued implementation of welfare and development programs in jail and prison facilities in the region will be pursued. Penal institutions in the region will also pursue partnerships with state universities and colleges in the region to provide technical and vocational programs for the PDL. These programs will be evaluated and assessed for possible expansion and enhancement to address the pressing needs of PDL inside the jail and prison facilities.

On the other hand, infrastructure support will be pursued to address the overburdened jail and prison facilities in the region. Construction of additional jail and prison facilities in the region will be pushed. While there are existing jail and prison facilities, these will be assessed for rehabilitation and expansion. As the region pushes for more facilities, more personnel are needed to manage them. Recruitment of jail officers will be intensified as well as the modernization of their equipment and logistics.

To enhance penal operability, enabling policies or laws on the unification of the country's penology system is pursued. The unification aims to institutionalize the country's penology system under a Department of Corrections, which shall have direct management and supervision of jail and prison facilities in the country.

Legislative Agenda

The following policy reviews and legislative action shall be sought to enhance the administration of justice in the region.

Table 14.2.2 Legislative Agenda to Enhance Administration of Justice

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Justice Sector Coordinating Council (JSCC) enabling law	This aims to recognize and institutionalize a government body for the coordination of justice sector. In MIMAROPA, the establishment of Justice Zone, a coordinating body or council, will be pursued in the region for the purpose of strengthening coordination among justice sector and penal institutions to address sectoral issues and concerns and establish a strong mechanism that will enhance the delivery of justice in the region.	DOJ and DILG
Justice sector human resources rationalization	This aims to create more positions in the justice sector alongside the creation of courts increasing number of prosecutors, public attorneys, and other justice sector positions that will address the workload and case congestion. Additional budgetary requirements will be pursued for the region for the creation of additional positions in the justice sector.	DOJ, PAO
Expanded Katarungang Pambarangay	This aims to evaluate the exemption of cases that may be brought before the Lupong Tagapamayapa. Local ordinances among cities, municipalities, and provinces will be passed in the region to evaluate and establish a mechanism that ensures the efficiency and effectiveness of barangay justice system in resolving cases at their level. Local ordinances among cities, municipalities, and provinces will be passed in the region to expand the responsibilities of existing Katarungang Pambarangay to include functions such as monitoring PDL post-incarceration or reintegration into the community.	DILG
Unified Reintegration Strategy	This aims to formulate a comprehensive reintegration program for PDL post-incarceration. This will include incentivization of private sector that will accept PDL as employees. Local ordinances among cities, municipalities, and provinces will be passed in the region to incentivize private sector/businesses that will accept PDL as employees.	DOJ, BJMP, DTI, DOLE, and DSWD

15

**Practice Good Governance and
Improve Bureaucratic and
Regulatory Efficiency**

PRACTICE GOOD GOVERNANCE AND IMPROVE BUREAUCRATIC AND REGULATORY EFFICIENCY

Good governance plays a vital role to ensure people's trust in the system and administration, promote a harmonized society, and broaden opportunities for inclusive development. Services provided and decisions made by a civil servant must pursue economic interests and answer to what benefits the public. Sectors needing the most attention should be provided adequate resources for sustenance while maintaining general accessibility to the government's programs and projects. Its goal is to deliver equitably and be within reach even to the most unfortunate. As a result, citizens' participation towards achieving societal goals is boosted, as well as their compliance with laws and regulations and willingness to pay correct taxes.

Where efficient administration of responsibilities exists, public trust and cooperation subsist. This chapter discusses strategies to encourage participatory governance, ensure a trustworthy and responsive system by engaging both the citizens and government, provide enabling mechanisms to enhance delivery of public services, and improve regulatory efficiency and competitiveness.

Assessment and Challenges

Good Governance

Full Disclosure Policy (FDP). The DILG MIMAROPA 2022 Annual Report showed that out of 78 LGUs in the region, 69 are already compliant with the full disclosure of local budget and finances, and bids and public offerings. The province of Palawan had 15 out of 24 LGUs (62.5 percent) compliant with FDP, while the rest of the provinces achieved 100 percent. As a tool for promoting accountability and transparency, the FDP (DILG Memorandum Circular No. 2010-083) requires LGUs to fully disclose particular financial documents to inform the public on how the budget is disbursed and managed.

Seal of Good Local Governance. MIMAROPA is on a continuing commitment to progress and improve the region's overall performance. In 2022, six municipalities were awarded the Seal of Good Local Governance (SGLG), entitling them to

performance challenge fund (PCF). The PCF is the SGLG incentive fund to be used in financing local development initiatives in pursuance of national goals. LGUs must strive harder to pass all ten governance criteria: (i) financial administration and sustainability; (ii) disaster preparedness; (iii) social protection and sensitivity; (iv) health compliance and responsiveness; (v) sustainable education; (vi) business-friendliness and competitiveness; (vii) safety peace and order; (viii) environmental management; (ix) tourism, heritage development, culture and arts; and (x) youth development.

Development Councils and Plans. Republic Act No. 7160 or the Local Government Code of 1991 provides that NGOs representation in local development councils (LDC) shall constitute not less than 25% of its members. In 2021, 74 LGUs are compliant but the

RDP target of 78 was not met. In 2020, the region recorded 71 functional municipal development councils (MDCs) and five functional provincial development councils (PDCs) both led by the local chief executives. The challenge continues for the whole region, both in complying with what the law provides, and maintaining functionality of the LDCs.

Meanwhile, 66 LGUs have updated their comprehensive development plans (CDP) as per DILG MIMAROPA records. The remaining seven, one from Oriental Mindoro and six from Palawan, are still updating their CDPs.

Regional Government Center (RGC). The Implementing Rules and Regulations of Republic Act No. 10879, otherwise known as the MIMAROPA Act, identified Calapan City as the regional center. Regional government centers aim to foster the efficient delivery of government services, and to strengthen collaboration and coordination among government agencies. Fifty-one possible agency regional offices (ARO) as locators are in the proposed RGC as envisioned in the Indicative RGC Master Plan and Architectural Schematics. As of 2021, a total of 19 AROs have already fully transferred, while seven have satellite offices in the city.

Full Devolution. In 2021, all provinces, cities, municipalities and barangays in MIMAROPA have created a devolution transition committee. Meanwhile, all municipalities in Marinduque and all barangays in Marinduque and Romblon have submitted their devolution transition plan (DTP). These are all monitored by DILG MIMAROPA in support of Executive Order No. 138 or the Full Devolution Program, which aims to strengthen the autonomy and empowerment of LGUs, support decentralization and increase the just share of LGUs in the collection of national taxes.

Digital Transformation. Internet services in remote and unserved areas empower the citizenry through their participation in the global digital economy. In 2021, the region through the DICT, intensified the implementation of connectivity programs to achieve more inclusive ICT access. Critical roadmaps and programs towards the development of ICT have been taking root in the region. These include the implementation of the Free Wi-Fi access in public areas and the NBP.

Additional digital infrastructures were established, and various ICT projects were implemented in the region to cope with the needs that the new normal

has brought. The region has established 139 active free Wi-Fi sites utilized in state universities and colleges, public elementary and high schools, hospitals, ports, municipal plazas, and LGUs' town/municipal hall in 2021.

The Government Network project was integrated with the NBP as it aims to interconnect government agencies to provide fast, secure, and efficient fiber connectivity, and improve provision of public services to people. In MIMAROPA, National Government Agencies (NGAs) and LGUs with online presence using the government web template (GWT) and government web hosting services (GWHS) include the municipalities of Sta. Fe and San Andres in Romblon, municipality of Socorro in Oriental Mindoro, Provincial Government of Marinduque, NTC MIMAROPA, and NEDA MIMAROPA.

Republic Act No. 11055 also known as the Philippine Identification System (PhilSys) Act mandated the PSA as the implementing agency to establish a single national identification system for citizens and residents. As of December 2021, MIMAROPA recorded a total of 1.2M registered residents/citizens in the PhilSys ID, which is about 77.6% of the total targeted population. Strengthening PSA's PhilSys program will also help in accelerating the digital transformation in the region.

Competitiveness and Effectiveness

Cities and Municipalities Competitiveness Index (CMCI). CMCI is the annual ranking of the country's cities and municipalities developed by the National Competitiveness Council (NCC) through the Regional Competitiveness Councils (RCCs) with the assistance of the United States Agency for International Development. Rankings are based on the sum of scores based on five pillars: (i) economic dynamism; (ii) government efficiency; (iii) infrastructure; (iv) resiliency; and (v) innovation. A total of 77 LGUs from the region participated in the recently concluded 10th CMCI on October 20, 2022 wherein Calapan City was hailed as the 5th Overall Most Competitive Component City, topped the government efficiency and resiliency pillars, and fourth in the infrastructure sector. The city also improved its ranking by five steps from 10th in 2021. For provinces, Marinduque ranked 19th and is the highest among all the provinces in the region. Puerto Princesa ranked 18th in 2022 and improved one step higher than its 2021 ranking in the highly urbanized cities (HUC) category.

Targets

Table 15.1 Indicator Matrix: Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

INDICATOR	BASELINE		ANNUAL PLAN TARGETS						END-OF-PLAN TARGET	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
100% LGUs compliant with 25% or more NGO representation in LDCs achieved and maintained	2020	99%	100%	100%	100%	100%	100%	100%	100% (78)	DILG
100% functional MDCs/CDCs achieved and maintained	2020	97%	100%	100%	100%	100%	100%	100%	100%	DILG
Number of functional PDCs maintained	2020	5	5	5	5	5	5	5	5	DILG
Number of LGUs with updated CDPs increased	2021	66 -90%	68 -93%	68 -93%	70 -96%	70 -96%	73 100%	73 100%	73 -100%	DILG
Number of RGOs in Calapan City increased	2021	19	23	25	27	29	31	33	33	RGCMC
a. Fully transferred										
b. Satellite office	2021	7	9	11	13	15	17	19	19	
100% LGUs with established iBPLS achieved and maintained	2021	99%	100%	100%	100%	100%	100%	100%	100%	DILG
Number of LGUs that have adopted BPCO system for processing construction-related permits increased	2022	33	40	45	50	55	65	73	73	DILG
Number of LGUs conferred with the Seal of Good Local Governance increased	2022	6	10	15	20	25	30	35	35	DILG
100% LGUs compliant to full disclosure policy achieved and maintained	2022	88%	100%	100%	100%	100%	100%	100%	100%	DILG
Number of LGUs with improved CMCI ranking increased	2022	41	55	63	70	78	78	78	78	DTI

Sources: DILG MIMAROPA, and RGCMC

Fourteen LGUs improved their CMCI ranking for the Most Improved 1st to 2nd Class Municipalities with Occidental Mindoro improving a total of 219 steps from 420th in 2021 to 201st in 2022. San Jose, Occidental Mindoro ranked 22nd in the category, and is the highest rank in the region. On the other hand, 16 LGUs improved in their ranking for Most Improved 3rd to 4th Class Municipalities. Pola, Oriental Mindoro had the highest improvement at 576th in 2021 and 293rd in 2022. Mogpog, Marinduque at 53rd earned the highest rank in MIMAROPA. Cagayancillo, Palawan improved 137 steps from 287th in 2021 to 150th in 2022 in the Most Improved 5th to 6th Class Municipalities. Ten LGUs performed better in this category while Santa Fe, Romblon remained at 126th. Looc, Occidental Mindoro ranked the highest in MIMAROPA for this category at 39th overall.

Ease of Doing Business (EODB). EODB aims to simplify and streamline government procedures to

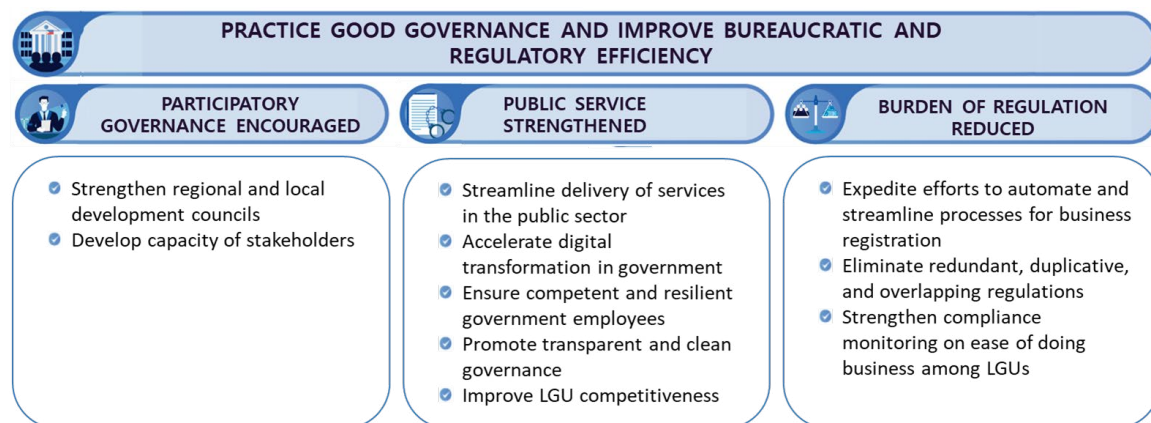
reduce red tape, expedite government transactions and lessen repetitive and non-value-adding processes which are key toward enhancing the competitiveness of the region.

In relation to the government's goal of improving the business climate and promoting efficiency and effectiveness in business registration and service delivery of LGUs, the Anti-Red Tape Authority (ARTA), DILG, DICT, and DTI Joint Memorandum Circular No. 2021-01 regarding the guidelines for processing business permits, related clearances and licenses in all cities and municipalities was issued. A total of 72 LGUs were compliant with said guidelines in 2021. A 100 percent compliance is expected in the coming years.

Meanwhile, 33 LGUs were compliant with the amended JMC No. 2021-01, which set service standards and streamlines the processing of construction-related permits.

Strategies

Figure 15.1 Strategy Framework to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency



Participatory governance encouraged

Strengthen local and regional development councils

Strengthening Committees. Multi-sectoral and interagency bodies at subnational and local levels provide venue to facilitate problem-solving and interventions to address them. There are existing various interagency bodies in the region and local level such as Regional Development Committee (RDCOM), Regional Peace and Order Council (RPOC), RTF ELCAC, among others which must be strengthened through active participation of the members and other representatives. The issuance of Executive Order No. 70 or whole of nation/society approach provide guidance to strengthen the existing bodies including the RDCs for effective governance, socioeconomic development, and delivery of services.

Establishment of Regional Government Center. The establishment of the MIMAROPA RGC will streamline the RLAs' operations, reduce costs in providing services in the region and expedite government-to-business and government-to-citizen transactions. The accessibility of regional offices will provide better services to LGUs in MIMAROPA provinces and the private sector. The coordination and implementation of interagency development programs/projects will be more responsive to the needs of the people with additional revenues to the regional offices. As of 2022, the ongoing backfilling and construction of the RGC perimeter fence, with 30% physical accomplishment.

There are also other concerns about the creation of some government offices for the region. The Civil Service Commission (CSC) and the Maritime Industry Authority (MARINA), among others, are serving both the MIMAROPA and CALABARZON regions, which limits their full efficiency in providing region-focused but inclusive efforts in service delivery. Dividing said agencies into separate regional offices will be beneficial to the establishment of the RGC due to the geographical location of its constituent provinces and pursuant to Executive Order No. 103, s. 2002, which aims to further accelerate the social and economic development of the provinces and cities comprising each administrative region.

Implementation of the Full Devolution Program. LGUs' implementation of EO No. 138, s. 2021 through their respective DTPs and updating of said plans, when necessary, will be monitored and guided by committees and government agencies concerned. Assessments of LGUs' compliance and readiness using different tools will be given emphasis by the government. The region will continue to provide its usual support through capacity building and enhancement activities to facilitate decentralization, devolution and delineation of functions.

Moreover, the region will fully commit to developing LGUs' capability to deliver services and provide facilities and promoting local economic growth while capacitating leaders who will be accountable, competent and transparent.

Revisiting the Indigenous People Mandatory Representative (IPMR) Guidelines for Indigenous Peoples'/Indigenous Cultural Communities' (IPs/ICCs) Inclusivity and Full Participation. Section 16 of Republic Act No. 8371 (The Indigenous Peoples' Rights Act of 1997) provides that the ICCs/IPs have the right to participate fully, if they so choose, at all levels of decision-making which may affect their rights, lives, destinies and their own indigenous political structures. Consequently, the state will ensure that the ICCs/IPs be given mandatory representation in policy-making bodies and other local legislative councils.

The indigenous groups living in the region face the challenge of culture preservation and appreciation during this modern age. According to a representative from a private sector organization, some LGUs fail to recognize their right to participate in LDCs. The region must focus on the challenges and gaps identified and must consider pushing for stronger and further amendments in the guidelines to help easily and effectively address the issues, needs and problems that the IPs are facing.

Develop capacity of stakeholders

Capacity building and technical assistance on the formulation of CDPs, comprehensive land use plans (CLUPs), and provincial development and physical framework plans (PDPFPs). LDCs and government units are tasked to craft their

own comprehensive plans aimed at establishing an economically transformed government.

The CDPs, CLUPs, and PDPFPs of the LGUs are prepared and updated to represent their vision, sectoral goals, objectives, development strategies, and policies within both the medium and the long term. Guidance on the formulation and updating of these plans is issued by DILG, DHSUD, and other government agencies.

Continuous training, technical assistance, seminars/webinars, and the like, by concerned agencies and officials will ensure that plans are formulated and updated following the applicable systems and tools provided by the national government. The regional government bodies will extend support and guidance to local levels in devising their comprehensive, physical framework, and land use plans.

Capacity Building for IPMRs. The IPMR initiative is being carried out by NCIP in collaboration with ICC and IPs through its Indigenous Political Structures (IPS). Their collaborative goal is to increase the number of cities, municipalities, provinces, and barangays that will implement IPMR.

For effective and full participation of the IPMRs, they will be provided with sufficient training and skills which focus on planning and project development, monitoring, and evaluation. With this, their representation in the local development councils will be more recognized and can effectively address the issues and needs of the IP community.

Support DILG MIMAROPA's Capacity Development Programs. MIMAROPA explored different platforms of communication and skills enhancement programs for continued government service during the pandemic. The challenges and difficulties faced through these times brought slow and minimal growth to the whole region and the individuals. The need to improve and strengthen existing skills and resources has become a priority. DILG MIMAROPA initiated various capacity development programs on public accountability, local development planning/full devolution, ease of doing business, peace and order and COVID-19 related activities and projects in 2021. Massive support from different government agencies and NGOs for the planned capacity building and technical assistance programs through funding, mainstreaming and collaboration will be sustained and promoted.

Capacity Building for Private Sector Representatives (PSRs). As mandated by Article X, Section 14 of the 1987 Philippine Constitution, and provided by Executive Order No. 325, s. 1996 which reorganized the RDCs, PSRs, will be involved in the coordination, integration and review of approved development plans of LGUs, RLAs, SUCs, and other government bodies into the regional development plan. It is noteworthy that PSRs will be provided with similar capacity building such as development planning, project development, monitoring, and evaluation that were provided to government personnel for effective participation in carrying out the functions of the RDC. When necessary, sector focused trainings will also be promoted to ensure that PSRs are fully capable and adept to the area they represent.

Mainstream and promote public awareness on government's mechanisms to intensify citizen's feedback and response. Existing mechanisms such as ARTA Report Card Survey of the CSC, the Citizen Satisfaction Survey conducted by the DILG, the Citizen Participatory Audit Program implemented by the COA, and the electronic Freedom of Information (eFOI) will be sustained and furthered. Mainstreaming and promoting public awareness of these mechanisms and its results will intensify the response and feedback process between the government and the public, thus ensuring transparency and accountability.

Public service strengthened

Streamline delivery of services in public sectors

Inclusion/Identification of services offered by government agencies in their official websites and citizen's charters. To promote efficiency and to streamline the delivery of government services, agencies will specify and indicate all services offered by their office. This will help clients and stakeholders to simplify their transactions through easy identification and faster access to services offered by different agencies. Updating of agencies' official websites and the inclusion of processes per varying transaction and the expected time to deliver each step through the citizen's charter will be monitored.

Integration of Philippine National ID System to

existing government systems and services for easier access of Resident and Non-Resident Citizens/Overseas Filipinos. PhilSys aims to provide valid proof of identity to simplify public and private transactions, promote seamless delivery of service and strengthen financial inclusion of private and public services. When fully implemented, delivery and access to services would lead to contactless, paperless, cashless and digitalized transactions will accelerate the coordination between and among government agencies will be improved.

Integration/Adoption of the ISO Quality Management System as a standard process guide for the delivery of services. Quality management system (QMS) is a formalized system, process, documentation and procedure in delivering goods and services to its client. It helps coordinate and direct an organization's activities to meet customer and regulatory requirements and improve its effectiveness and efficiency on a continuous basis. Following the requirements of the QMS, government agencies will be able to streamline and organize their processes and improve prescribed processing time for a satisfactory delivery of service. Agencies that are already ISO certified will post their certifications on their respective websites for proper monitoring and compliance with government transparency.

Accelerate digital transformation in the government

Fast-track Implementation of the Free Internet Access Program. Investments in expanding, upgrading and modernizing ICT infrastructures will be deployed, and internet connectivity in the whole region will be improved to support uninterrupted and fast private and public transactions. While doing so, the regions' rural, far-flung, and geographically challenged areas must be prioritized. It is also important to note the inclusion of IPs who live in remote areas in the implementation of Republic Act No. 10929 as support for the IPs education, communication, employment, and access to available government services. Through improved and affordable internet connectivity in the region, given its geographical condition, the digital divide will also be addressed.

Encourage use of e-payment platforms for government services and transactions. Maximizing the use of e-payment platforms will bring advantages to both the government and the people they serve. As

part of the transition to digital economy, e-payment platforms, online filing and payment of taxes and full utilization of government applications and online sites will be pushed. The DICT MIMAROPA will spearhead the technical assistance required for the government agencies on these opportunities. The public will be familiarized and updated with the current ways to avail the service needed while ensuring security and safety of private information and financial resources and accesses.

Participation of MIMAROPA LGUs in the Digital Governance Awards (DGA) will also be encouraged. The DGA recognizes LGUs' efforts and best practices in utilizing ICT in delivering government services effectively and efficiently. There are five categories in DGA, namely: G2G (Best in LGU Empowerment Award), G2I (Best in Government Internal Process Award), G2C (Best in Customer Empowerment Award), G2B (Best in Business Empowerment Award), and G2P (Best in Covid-19 Response Award).

Ensure competent and resilient government employees

Conduct of training for Human Resource Development. Professionalization and capacitating development among government employees through training, workshops, seminars and scholarship opportunities are investments that will be constantly monitored in the region. Overall assessment of needs and skills required will be done regularly to know which area of human resources needs improvement and furtherance. Every LGU will have an active and responsive human resource unit to bridge employees' needs. Further, coordination with, and reinforcement of the organizations' support to the goals of the HR unit will be practiced. Foreign or local scholarships and training programs will be fully utilized through nominations of respective supervisors and qualified personnel. It would also benefit government employees when individual development plans (IDPs) are prepared and assess their strengths and weaknesses for appropriate training needs that could lead to the full potential of each human capital.

Gender and Development Planning and Budgeting. MIMAROPA envisions just and fair treatment of its citizens. Through the Regional Gender and Development Committee (RGADC), existing mechanisms such as capacity building activities and technical assistance will be furthered to ensure

that the government agencies and LGUs align their budget and programs with promoting Gender and Development (GAD) advocacies of the region. These includes conduct of region-wide training and workshop on gender mainstreaming in the formulation, updating and assessment of regional, sectoral development policies, plans and programs using gender analysis tools (i.e., Harmonized Gender and Development Guidelines Checklist on Development Planning, among others) and conduct of consultation meetings and workshops on integrating GAD on Technical Budget Review (TBR) Forms and in the conduct of TBR activities.

Promote transparent and clean governance

Creation of Internal Audit Service/Unit in LGUs.

The establishment of Internal audit services/units and creation of plantilla positions for said unit in LGUs will result in a clean and trustworthy administration. This unit will determine the degree of compliance within the set standards, review of financial management records and reports, evaluate management deficiencies and recommend actions to improve the operation and delivery of services. The LGUs' accountability will be more established in the public's view since internal audit revolves around impartiality, objectivity, integrity and independence. Moreover, this could serve as a preventive and detective control and mechanism for LGUs because audit recommendations are easily available and could answer to current management discrepancies before the external auditing body or the Commission on Audit (COA) finds these.

Seal of Good Local Governance. LGUs are continually encouraged to enhance their performance and service delivery through their participation in the SGLG to ensure that local government policies are align with regional, national, and international frameworks for good governance, particularly those pertaining to local government responsibilities. The SGLG is a progressive assessment system that recognizes LGUs for their outstanding performance over a number of years. It pushes for an efficient, effective, transparent, and accountable service delivery.

Functionality of Local Project Monitoring Committees (LPMCs). LPMCs were created in the region to facilitate the implementation of ongoing and critical projects. The committees were

established through Memorandum Order No. 175, s. 1998, and aimed to operationalize and implement the Regional Project Monitoring and Evaluation System (RPMEs) at the provincial, city, and municipal levels. The DILG MIMAROPA, with assistance from the Regional Project Monitoring Committee (RPMC) and Provincial Planning and Development Offices (PPDOs) identified indicators and parameters to determine the functionality of LPMCs. The indicators include LPMC organization, trainings attended, Field Monitoring Visits (FMVs), preparation of work Program, and implementation and reporting. The DILG will regularly monitor said indicators to assess the functionality of LPMCs which will be mandated through issuance and implementation of guidelines from responsible agencies.

Improve LGU competitiveness

Rewards and Incentive Program. Special recognitions, rewards and/or incentives will be given to LGUs who showcased improvement in their ranking in the CMCI. This will encourage greater participation among LGUs and a reminder to further their efforts. CMCI itself is a comprehensive tool for LGUs to assess in what sector they are lacking. To compensate LGUs who participated but did not improve in their rankings, agencies concerned will provide technical assistance especially in the areas where the LGUs got the lowest scores.

The PCF, as performance based LGU incentives or awards system, supports DILG's banner campaign on transparency, accountability, and good local governance. Further, PCF raises the standard for excellence to be eligible for the incentive funding for local development projects, which aids in the Department's campaign to encourage continual improvement in the performance of LGUs.

Burden of regulation reduced

Expedite efforts to automate and streamline processes for business registration

As a key directive to support the implementation of the Republic Act No. 11032 or the Ease of Doing Business and Efficient Government Service Delivery Act of 2018 (EODB-EGSD), LGUs will

shift to the use of the Integrated Business Permits and Licensing System (iBPLS). The region will fully utilize the software to enable the online processing of business permits, building permits, certificate of occupancy, barangay clearance, and other related licenses, clearances, permits, certifications or authorizations. This will ensure a fast and efficient LGU permitting process and eradicate the red tape in LGU transactions.

Integration of the issuance of barangay clearance in the permitting processes of cities and municipalities, as per DILG Memorandum Circular No. 2019-177, will be monitored. The differing roles and responsibilities of the cities, municipalities and barangays in full compliance of said circular will be highly observed.

Eliminate redundant, duplicative, and overlapping regulations

The region will fully utilize the Regulatory Reform for LGUs Information System (RR4LGUsIS) to retrieve information and cross-reference various and existing regulations. RR4LGUsIS is a web-based application that serves as a database of policies, issuances, and regulations that still exist and which have been amended, repealed, and consolidated. This will help LGUs easily identify redundant, duplicative and overlapping processes. Further, MIMAROPA LGUs will automate procedures, shift to paperless transactions and enhance efficiency in business registration processes.

Following the Guidelines on the Regulatory Reform for LGUs pursuant to EODB-EGSD (DILG-ARTA JMC No. 2019-01), MIMAROPA, through its established Regulatory Reform Teams, will encourage public participation through consultation of the regulatory reform process and lower the cost of transactions in business compliance. Reasonable regulatory fees will be based on the actual costs incurred by the government in providing services.

Strengthen compliance monitoring on Ease of Doing Business among LGUs

In 2021, DILG-MIMAROPA monitored LGU's implementation of the RA No. 11032 and its underlying programs, projects and activities (PPAs). Through the DILG BPLS/BPCO Online Monitoring System, LGUs' compliance, readiness, and capability to streamline business processes will be regularly monitored and reported.

Capacity building activities and technical support will be continuously provided by the DILG MIMAROPA to enable LGUs to reach the standards set by the law and to maintain the optimal increase in the compliance targets.

Table 15.2 List of Major Programs and Projects

TITLE	PROVINCE/ CITY	INVESTMENT TARGET (PHP '000)						TOTAL PROJECT COST ('000)
		2023	2024	2025	2026	2027	2028	
Establishment of agency regional government offices in Calapan City	Calapan City							TBD
Seal of Good Local Governance	Regionwide		150,000					150,000
Capacity Development for Human Resource (Technical and Administrative Personnel) based on the Individual Development Plan (IDP)	Regionwide		2,500	3000	3500	4000	4500	19,500
Local Governance Resource Center (LGRC) Strengthening Activities	Regionwide		1,100	1,200	1,300	1,400	1,500	7,500

Source: Regional Development Investment Program 2023-2028 – DILG MIMAROPA

Legislative Agenda

Support to government programs and policies in the form of advocacy activities is significant to achieve national and regional development goals. Enactment of bills and implementation thereof contribute to inclusive growth and harmonization of systems. The agenda presented below represents the need to adapt to changes and the institutionalization of reforms to help the people and the country itself.

Table 15.3 Legislative Agenda to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Implementation of enabling law/s for sectoral representation in the local development councils	Mandate sectoral representation to pursue the interest of different sectors and promote decentralization and participation in local governance. This will strengthen the participation of various sectors, particularly the private sector, in the local government bodies as well as in the MIMAROPA Regional Development Council, which are the key players in the socioeconomic development of the region.	DILG/RDC
Revisiting IPRA and IPMR guidelines on the representation of IPs/ICCs in the local development councils	Intensify inclusivity and recognition of Indigenous People in the local development councils especially in the LGUs in the region where IP mandatory representation is not yet recognized.	NCIP
Creation of Human Resource and Management Offices (HRMO) in LGUs	Establish HRMOs and delegate all human resource related processes and accountability in the office. Local government units in the region that need HRMO include San Teodoro, Naujan, Bulalacao, Mansalay, Victoria, Bongabong and Roxas.	DILG/DBM

16

**Accelerate Climate Action
and Strengthen Disaster
Resilience**

ACCELERATE CLIMATE ACTION AND STRENGTHEN DISASTER RESILIENCE

Natural disasters and climate change are issues of great concern not only in the Philippines but globally due to their economic, environmental, and social impact. The archipelagic characteristic of MIMAROPA positioned the region's prime assets (e.g., people's lives, properties, and the environment, among others) at a disadvantage to the combined effects of continued temperature increases, changes in rainfall pattern, sea level rise, and typhoon occurrences. Thus, the region is one of the most vulnerable to these hazards.

The enactment of Republic Act No. 10121 otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010 has laid the basis for a paradigm shift from just disaster preparedness and response to disaster risk reduction and management (DRRM). Moreover, the Climate Change Act of 2009 mandated the local government units to be at the forefront in planning and implementing climate change actions plans in their respective areas of jurisdiction.

This chapter focuses on accelerating climate action and strengthening disaster resilience of communities, institutions, and the natural and built environment at the regional and local level through strengthened partnership and coordination among all key players and stakeholders.

Assessment and Challenges

Vulnerability to natural hazards. Due to its geographic location, MIMAROPA is susceptible to all types of natural hazards (e.g., hydrometeorological and geological hazards). With climate change, the region has also been experiencing extreme weather conditions. The observed annual mean temperature from the six synoptic stations located in Calapan City in Oriental Mindoro; Coron, Cuyo, and Puerto Princesa City in Palawan; Romblon in Romblon; and San Jose in Occidental Mindoro) showed 0.05°C increase from 2015-2020. Based on climate projections by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) for 2020 and 2050, all areas in the Philippines will get warmer, with the largest increase in temperatures in summer, during the months of March, April, and May (MAM). Mean temperatures in all areas in the Philippines are expected to rise by 1.8 °C to 2.2 °C in 2050.

Heating of the climate system has caused global mean sea level rise through ice loss on land and thermal expansion from ocean warming. According to the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report, the global mean sea level increased by 0.20 m (0.15 to 0.25) m between 1901 and 2018. Relative to 1995–2014 data, the likely global mean sea level rise by 2100 is 0.44–0.76m under the intermediate GHG emissions scenario (SSP2-4.5); and 0.63–1.01m under the very high GHG emissions scenario (SSP5-8.5). Such projected increase in sea level might worsen storm surge hazards, particularly in coastal communities, which MIMAROPA is predominantly composed of.

Increasing trend in the amount of annual rainfall was observed in Coron and Cuyo in Palawan; and San Jose in Occidental Mindoro from 2015-2020. Climate projections further indicate a reduction in rainfall in most parts of the country during the summer season in March, April, and May (MAM) while there will likely be an increase in rainfall during the southwest monsoon season in June, July,

and August (JJA) until the transition months of September, October, and November (SON) in most areas of Luzon and Visayas.

The extreme changes in weather and climate pattern may result in intense droughts, water scarcity, flooding, and loss in biodiversity.

Among all the meteorological disasters, typhoons impose the biggest threats to human lives and urban development not only because of its high frequency of occurrence and destructive power, but also due to other typhoon-induced hazards, such as flooding caused by storm surges and heavy rainfall. In the past two years alone, four typhoons have caused major destruction in the region. The total damages and losses brought by Typhoons Quinta, Rolly, Ulysses, and Odette were recorded at Php 8.58 billion and Php 9.90 billion, respectively. The recent onslaught of Typhoon Odette left 118,276 families and 395,433 individuals affected, including 31 casualties wherein 25 individuals died, four went missing, and two were injured.

Mechanisms to address climate and disaster risks are in place but efforts need to be sustained.

100 percent of all provinces in the region have established Provincial Disaster Risk Reduction Management Offices (PDRRMOs). Further, 100 percent compliance rate of local government units (LGUs) in MIMAROPA with Local Climate Change Action Plans (LCCAPs) as well as completed/updated local disaster risk reduction and management plans (LDRRMPs) were recorded. Said plans detail the LGUs' strategies for enhancing their capacities to respond to the impacts of climate change, disaster prevention, mitigation and preparedness. On the other hand, based on cumulative data from 2016-2021, a total of 61 cities/municipalities or 78 percent of LGUs have been assessed for vulnerability and risk. All city/municipalities in Marinduque, Oriental Mindoro and Occidental Mindoro have been assessed.

LGUs are constrained by limited budget, resources, and workforce to implement priority programs and projects on DRRM and CCA. Limited resources result to lack of DRRM/CCA resilient infrastructure. Inadequate early warning systems (EWS) in LGUs were also observed in the region. The

presence of EWS to address disaster risks is crucial to strengthening disaster resilience and the adaptive capacity of communities. Only 30 LGUs or about 38 percent have their operating early warning systems. Meanwhile, some LGUs in the region only have posters as their EWS. LGUs shall establish additional EWS and/or enhance the existing EWS to strengthen disaster preparedness.

Lack of public and community awareness on climate change and disaster risks. The need to increase the level of awareness and preparedness of the public on the impacts of climate change and hazards, especially in geographically isolated and disadvantaged areas (GIDAs) cannot be overemphasized. In most cases, people and communities are vulnerable to disasters due to lack of information about these hazards; how to prepare for them; and how to reduce the risks of the hazards affecting their lives and livelihoods. Moreover, the lack of CCA and DRR-related research and information in the region hinders the decision-makers in implementing effective policies and decisions in terms of managing disaster risks and implementing appropriate climate change adaptation strategies.

Low compliance of MIMAROPA LGUs in Local Climate Change Expenditure Tagging (CCET).

The Climate Change Commission (CCC), the Department of Budget and Management (DBM), and the Department of the Interior and Local Government (DILG) put into effect the tagging of climate change-related programs/projects/activities (PPAs) of LGUs in their annual investment programs (AIPs) through DBM-CCC-DILG Joint Memorandum Circular 2015-01. Through CCE Tagging, local governments align their development priorities with the National Climate Change Action Plan. However, low compliance of LGUs in MIMAROPA was recorded for the past years. Only 7 out of 78 LGUs or about 9 percent have complied with CCET.

Limited data on the province's/region's greenhouse gas inventory. A comprehensive database of GHG emissions and removals is vital in tracking and monitoring the region's and country's progress on its climate change mitigation policy goals. However, currently, there is no mechanism to measure greenhouse gas emissions in the MIMAROPA region.

Targets

Table 16.1 Indicator Matrix

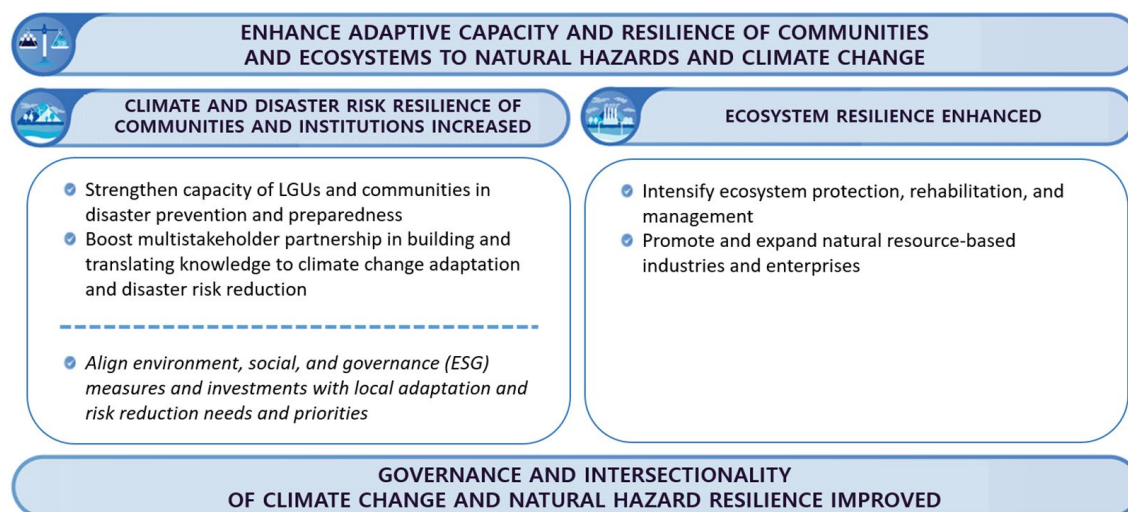
INDICATOR	BASELINE		ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
	YEAR	VALUE	2023	2024	2025	2026	2027	2028		
Outcome 1: Climate and disaster risk resilience of communities and institutions increased										
Number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population decreased										
Number of deaths attributed to disasters per 100,000 population decreased	2021	1	0	0	0	0	0	0	OCD admin data	OCD
Number of missing persons attributed to disasters per 100,000 population decreased	2021	1	0	0	0	0	0	0	OCD admin data	OCD
Number of directly affected persons attributed to disasters per 100, 000 population decreased	2021	12,247	11,022	9,920	8,928	8,035	7,232	6,509	OCD admin data	OCD
Percentage of LGUs with operating early warning systems	2021	35.90%	37.69	39.58	41.56	43.63	45.82	48.11	DOST admin data	DOST
No. of fully functional DRRM operations center increased	2021	78	78	78	78	78	78	78	OCD admin data	OCD
No. of municipalities and cities assessed for vulnerability and risk	2021	5	5	4	-	-	-	-	MGB admin data	MGB
Percentage of LGUs with Local Climate Change Action and Disaster Risk Reduction and Management Plans										
LCCAP	2021	100%	100%	100%	100%	100%	100%	100%	CCC admin data	CCC
LDRRMP	2021	100%	100%	100%	100%	100%	100%	100%	OCD admin data	OCD
Outcome 2: Ecosystem resilience enhanced										
NGP area planted and site prepared [ha]	2021	3,937 ha	4,331	5,112	3,306	2,376	2,257.20	2,144.34	DENR admin data	DENR
NGP area planted and site protected [ha]	2021	5,303 ha	5,202	13,941	13,232	10,035	9,533	9,057	DENR admin data	DENR
Forest Cover increased [in ha]	2020	947,794.00 ha			995,184 ha				DENR/NAMRIA admin data	"DENR/ NAMRIA"
Forest cover change [from closed to open forest]	2020	-3.00%			-5.00%				"DENR/ NAMRIA admin data"	"DENR/ NAMRIA"

Sources: OCD MIMAROPA, DOST MIMAROPA, MGB MIMAROPA, CCC, DENR MIMAROPA, and NAMRIA

Strategies

Strategies will be geared towards strengthening the implementation of CCA and DRR actions across sectors. Implementing the strategies requires decisive and sustained financing, knowledge build-up, technology and innovation, and concerted action through a whole-of-society approach. Prevention, preparedness, response, recovery, and rehabilitation efforts will be continuously pursued. Climate and disaster risk governance will be comprehensive and science and evidence-based for the effective and efficient delivery of these actions.

Figure 16.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience



Increase climate and disaster risk resilience of communities and institutions

Strengthen the capacity of LGUs and communities in disaster prevention and preparedness. To intensify efforts at increasing awareness and enhancing the capacity of LGUs and communities, capacity-building programs will be conducted to better prepare the communities on the slow and onset disasters and climate change impacts. This shall be complemented with information, education, and communication (IEC) campaign down to the barangay level. The use of documented traditional and innovative practices to increase the resilience of indigenous cultural communities and the GIDAs will be advocated. Increase the awareness and capacity of decision-makers and relevant stakeholders, including the private sector to gain a deeper understanding of risk

and vulnerability from hazards for local planning and decision making. Mainstreaming DRRM/CCA in national, regional, and local development plans and policies shall be strengthened. Provision of technical assistance and capability programs on mainstreaming DRRM/CCA in the local development plan formulation and updating, such as the Provincial Development and Physical Framework Plans (PDPFPs), Comprehensive Land Use Plans (CLUPs), Comprehensive Development Plan (CDP) and Zoning Ordinances and their operationalization shall be pursued. Strict enforcement of compliance with CCET shall be monitored.

The region will continue to develop, maintain, and ensure availability of geospatial information on climate and specific hazards and risks. Assessment of vulnerability and risk on remaining provinces in the region such as Palawan and Romblon shall be conducted by the MGB.

Capacity building for LGUs shall be conducted to tap available disaster resilience and climate financing such as the National DRRM fund, the People Survival

Fund (PSF), the Green Climate Fund (GCF), Official Development Assistance (ODA), among others. These financing programs shall be utilized for the adaptation, response, and recovery projects at the local level to increase the resiliency of communities and ecosystem to disaster and climate change impacts.

Investments in green public works and disaster-resilient infrastructure facilities such as flood control measures (e.g., dredging, river and estuary dikes, breakwaters, sea wall, water diversion channels, and disaster resilient evacuation centers) shall be prioritized. This shall include disaster-proofing and strengthening the region's physical infrastructure such as roads, bridges, airports, seaports, schools, hospitals, public buildings, and housing.

Installation and upgrading of forecasting and early warning systems especially on GIDAs shall be pursued. Municipal and Barangay Disaster Risk Reduction and Management Councils shall enhance communication links with government agencies such as DOST, PAGASA, and the Philippine Institute of Volcanology and Seismology (PHILVOLCS) to provide quick and early warnings to their constituents in the event of calamities.

Boost multi-stakeholder partnership in building and translating knowledge to climate change adaptation and disaster risk reduction. As climate change and disaster resiliency is everybody's concern, collaboration among the critical stakeholders such as the government, private sector, academe, civil society, and representatives from marginal sectors (women, youth, and indigenous peoples) will be bolstered to secure sustainable production, accelerate rehabilitation and conservation efforts, strengthen enforcement of environmental rules and regulations, and boost the contribution of ecosystems in disaster risk reduction and climate change adaptation and mitigation. Such partnership may include research and development, the provision of scientific and evidence-based information to decision-makers cannot be underestimated.

Thus, the expertise of private sector and the academe shall be tapped to pursue technological and research projects for the following key priorities: (a) food security, (b) water sufficiency, (c) ecological and

environmental stability, (d) human security, (e) climate-friendly industries and services, and (e) sustainable energy.

Replication of the Climate Vulnerability and Risk Information System (CVRIS) Project of Oriental Mindoro to other MIMAROPA provinces shall be pursued including other projects that aim to compile and disseminate risk data and information. The CVRIS is an online system that collects, digitizes, analyzes, and disseminates information relevant to climate change and agriculture value chain. It integrates national level climate change information with municipal and barangay level data; visualizes the different layers of hazard and socioeconomic factors at a glance; and provide objective basis for multi-sectoral local policy decisions.

Align environment, social, and governance (ESG) measures and investments with local adaptation and risk reduction needs and priorities. The region shall encourage the private sector to align their respective ESG targets and investments (e.g., corporate social responsibility programs) with local priorities and targets on CCA and DRR to efficiently allocate resources toward building resilience. The RDC Special Regional Sub-Committee on the SDG may be utilized as a platform for discussing the rationalization of these efforts. Capacity building on sustainability/ESG reporting for concerned stakeholders shall also be provided to enable accounting of contributions to broader sustainability goals.

Enhance ecosystem resilience

Intensify ecosystem protection, rehabilitation, and management. Strengthen community and private sector participation in the operationalization and management of natural resources through integrated and ecosystem-based approach or nature-based solutions in protection, rehabilitation, and biodiversity conservation (e.g., Adaptive Forest Ecosystem Restoration, Enhanced NGP, Waste to Energy Project).

The interconnectivity of various ecosystems within landscapes and seascapes and its impact on biodiversity, ecological processes, and functions

shall be considered in development planning. This covers the conduct of carrying capacity assessments to inform appropriate management interventions, especially in protected areas and ecotourism sites. Indigenous knowledge, systems, and practices will also be employed to complement science-based approaches in managing ecosystems. Monitoring of the compliance of extractive industry establishments to existing environmental laws, rules, and regulations will also be strengthened.

Pursuant to the Strategic Environmental Plan (SEP) for Palawan Act (Republic Act No. 7611), the Environmentally Critical Areas Network (ECAN) shall be mainstreamed to guide local governments in planning, policy formulation, and development regulation. ECAN is an integrated ridge-to-reef strategy to safeguard the natural capital of Palawan province and properly manage it as a fragile island ecosystem. Among its many provisions, the ECAN shall ensure the following: conservation and protection of forest; watershed protection; preservation of biological diversity; protection and preservation of tribal culture; protection of the rare and endangered species and their habitat; provision of areas for environmental and ecological research, education, and training; and the provision of areas for tourism and recreation.

The Biodiversity Corridor Project shall also be implemented in the Mindoro Biodiversity Corridor (MBC), through the project, integrated ecosystem management framework and site-specific integrated cluster conservation plans shall be developed and adopted for the MBC.

Strengthening and improving the efficiency of land administration, particularly the streamlining of regulatory mechanisms for land titling, will also be prioritized to ensure land tenure security, thereby increasing people's adaptive capacity to climate change and natural hazards.

Implement Climate Change Integrated River Basin and Development Master Plans. Improving the integration of sustainable land management approaches (e.g., soil and water conservation measures, climate-smart technologies) in local plans and policies shall be pursued to address climate change impacts on land and water resources. The Climate Change-Responsive Integrated River Basin Management and Development Master Plans shall be implemented for Cluster 3 River Basin (Mag-asawang Tubig, Malaybalay-Baco, Pulang Tubig, Pula, and

Butas) in Mindoro Island, and Cluster 4 River Basin (Iwahig Penal, Inagawan, Aborlan, Malatgao, and Batang-batang) in Palawan.

Promote and expand natural resource-based industries and enterprises. To promote green and blue economy, the government shall pursue enabling policies that will provide more livelihood and economic opportunities, particularly for the poor and vulnerable upland and coastal communities. Investments in activities that foster the sustainable management of natural resources, such as forest and coastal protection and rehabilitation, will be increased to generate more green jobs and livelihood. The government and the private sector shall also promote and develop more biodiversity-friendly enterprises and ecotourism sites within and outside protected areas. Marine-based industries shall also be pushed to provide employment opportunities and income for coastal communities.

Establishment of market-based mechanisms that support natural resource conservation measures such as payment for ecosystem services, and accelerating ecosystems and habitat rehabilitation and restoration shall be pursued. The proper accounting and valuation of natural resources.

Given the wide range of services and products that natural resources provide, it is imperative that their accounting and be mainstreamed in development planning. Proper valuation and accounting of natural resources given that the region is rich in terrestrial and marine biodiversity.

Improve governance and intersectionality of climate change and natural hazard resilience

Pursue cross-cutting measures to enable the implementation of strategies aimed at ensuring resilient communities, institutions, and ecosystems, and fostering a low-carbon economy. This would include addressing the intersectionality of vulnerability in priority sectors such as agriculture, water, energy, transportation, and urban-rural linkages to enhance climate and disaster resilience. These measures focus on improving existing governance structures, facilitating technology-

enabled and science-based policy and planning, and mobilizing sustainable and green investments. The region shall also support legislation on land use zones requiring green spaces in urban centers.

The region will lay the foundation to promote low carbon economy. Promotion of clean energy transition with cleaner alternative fuels and energy technologies for transportation such as hybrid and electric vehicles in pursuit of reducing the transportation sector's direct dependence on oil and gasoline, especially amidst rising fuel prices affecting consumers will be pursued. It is also a move towards reducing air pollution levels. This includes promotion of active transport system like walking and biking to reduce carbon footprint.

Sustainable financing mechanisms for CCA and DRRM efforts shall be determined and rolled out to ensure continuity of programs and projects. This will include the enhanced monitoring of Climate Change Expenditure Tagging of the LGUs.

Developing a sustainable, bankable, and gender-responsive pipeline of projects, implementing a blended approach in climate financing (e.g., grants, investments, and subsidies), and expanding the government's program convergence budgeting approach shall also be pursued. In addition, public-

private partnerships (PPP) will be encouraged to attract more investors.

To mitigate the emission of greenhouse gases, green investments shall be mobilized, localization and operationalization of the Nationally Determined Contribution (NDC) and Policies and Measures (PAMs) on key sectors such as energy, transport, agriculture, waste, industrial processes and products shall be pursued. An inventory of emissions and removals alongside their sources shall be developed in order to manage territorial GHGs.

The Regional Development Council (RDC) MIMAROPA shall ensure a monitoring and coordination mechanism for the planning and implementation of NDCs and PAMs, including the cascading of action plans to the agencies and LGUs. It shall coordinate with the Climate Change Commission in localizing the NDC in respective regions to determine regional contributions to the NDC and PAMs.

Ensure provision of social safety nets, recovery and rehabilitation assistance programs and projects to communities, especially with livelihoods reliant on agriculture and coastal resources.

Legislative Agenda

The following legislative measures are necessary to strengthen the protection and management of natural resources toward sustainable and climate-resilient development.

Table 16.2 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Sustainable Forest Management (SFM) Act	The bill aims to enhance forest ecosystem through reforestation and forest rehabilitation to mitigate climate change, improve and conserve biodiversity, enhance ecosystem functions and services, and provide long-term economic benefits. The bill shall also improve the Region's ecological integrity, protect existing forest resources, conserve biodiversity, rehabilitate denuded areas, and promote economic activities while achieving ecological balance.	DENR
Integrated Coastal Management (ICM) Act	This bill aims to institutionalize ICM as a national strategy to ensure the holistic and sustainable management of various ecosystems and natural resources through the "ridge-to-reef" approach. The bill pursues the development of an ICM Framework as a guide for LGUs in building the resiliency of coastal communities to climate change and other hazards which is suitable for an island region like MIMAROPA. Moreover, it complements the implementation of the Environmentally Critical Areas Network (ECAN) in Palawan.	DENR
Natural Capital Accounting (NCA) Act	This bill aims to greater stakeholder engagement and sustain budgetary support for the implementation of NCA activities at the national and subnational levels. The institutionalization of the NCA will enable the government to quantify and internalize the economic costs and benefits of environmental and climate change externalities into policies and decisions.	DENR

PART V

Plan Implementation, Monitoring, and Evaluation

17

Plan Implementation, Monitoring, and Evaluation

PLAN IMPLEMENTATION, MONITORING, AND EVALUATION

The MIMAROPA RDP 2023-2028 is geared towards economic and social transformation to reinvigorate job creation and accelerate poverty reduction in the region, by steering the region's economy back to a high-growth path. This growth must be inclusive, building an environment that provides equal opportunities to all MIMAROPAns.

Efficient and close coordination at various levels of government is crucial in the attainment of economic transformation of the region. The involvement and cooperation of the private sector during monitoring is deemed vital in ensuring that the government remains on track to achieving its targets. Timely assessment and evaluation will also be done to correct deviations.

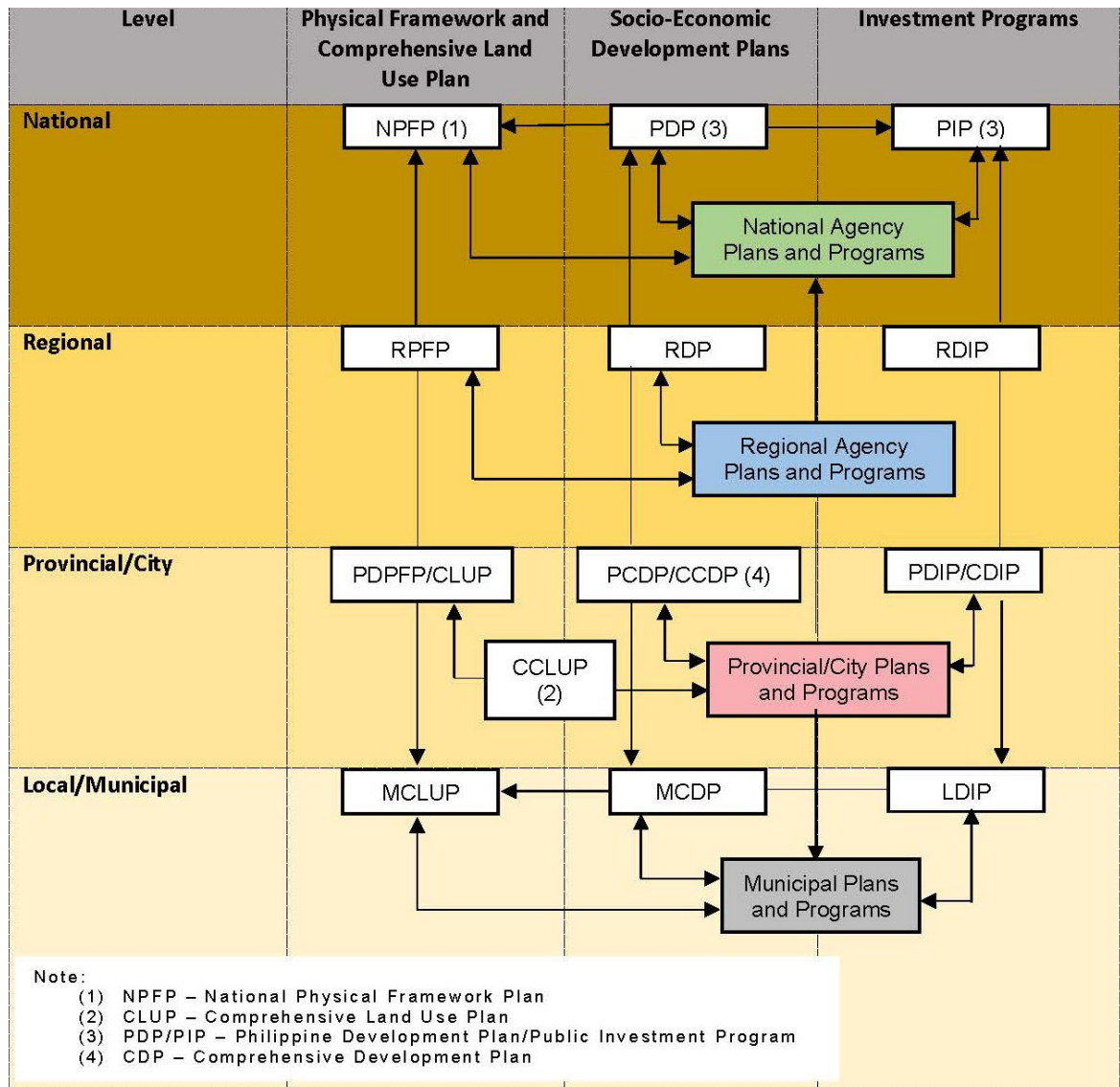
Plan Implementation

The government will set the necessary policies and enabling environment to fully implement the PDP 2023-2028 as well as its localization in the RDPs. Executive Order No. 14 – Approving and Adopting the Philippine Development Plan for the Period 2023-2028, issued by the President on 27th day of January 2023, directed all agencies and instrumentalities of the government to undertake efforts leading to the full implementation of RDP, primarily through programs and projects as contained in the public investment program.

RDC MIMAROPA, as the highest policy and decision-making body in the Region, will coordinate the implementation of the MIMAROPA RDP 2023-2028.

The plan will be implemented through its accompanying document, the MIMAROPA Regional Development Investment Program (RDIP) 2023-2028. The RDIP translates the RDP's goals, objectives, and strategies into schedule of programs and projects (PAPs) within six years.

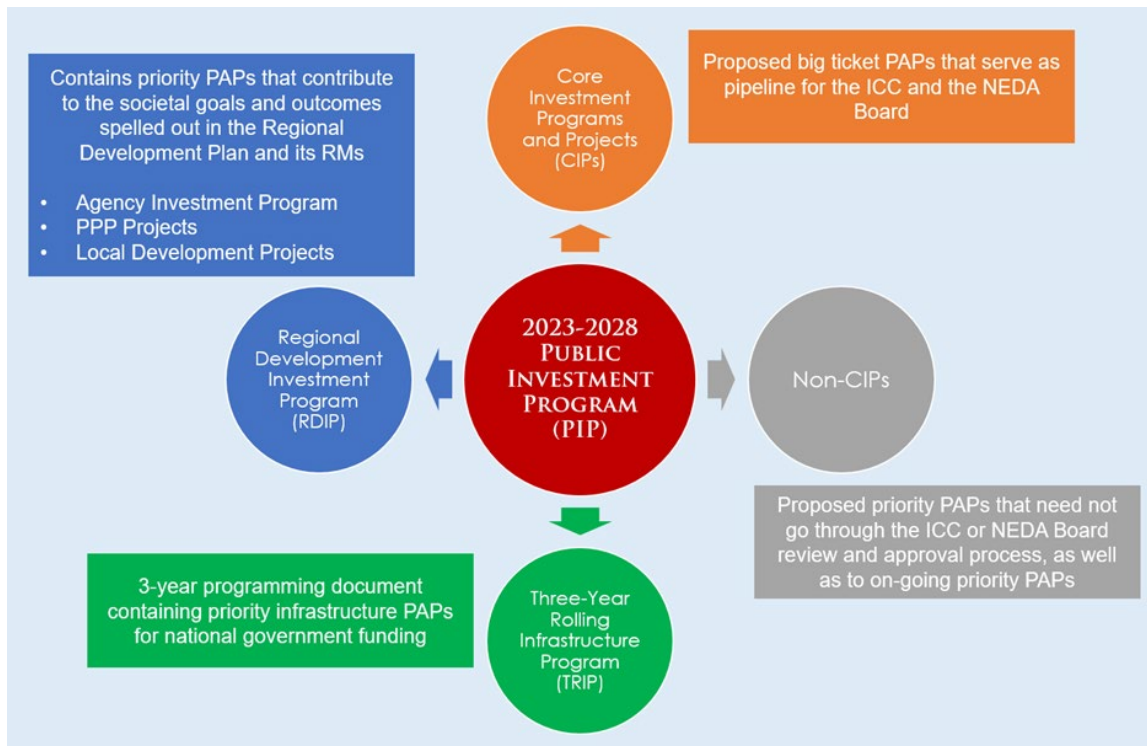
Figure 17.1 Horizontal and Vertical Linkages of Local and National Plans and Investment Programs



Source: NEDA

Shown in Figure 17.1 is the horizontal and vertical linkages of local and national plans, along with public and development investment program. The Public Investment Program (PIP) is the counterpart of the RDIP at the national level, while the Three-Year Rolling Infrastructure Program (TRIP) is a subset of the PIP that provide a more definite list of all government infrastructure projects for planning, programming, budgeting, and execution within three years.

Figure 17.2 PIP, CIPs, Non-CIPs, TRIP, and RDIP Relationship



Source: NEDA; NEDA MIMAROPA

To synchronize planning, programming and budgeting at the national and local levels, the process as presented in Figure 17.2 will be followed. The set of guidelines contained in the Joint Call issued by NEDA on 07 October 2022 for the Formulation of the Public Investment Program 2023-2028 and Three-Year Rolling Infrastructure Program for Fiscal Years 2024-2026 as Input to the Fiscal Years 2024-2026 as Input to Budget Preparation will be observed.

The RDC will regularly issue a similar joint call for the region for the updating of the RDIP and crafting of the regional line agency AIP.

The RDIP shall be the basis for preparing the annual budget proposals of RLAs, SUCs, and government-owned and controlled corporations. Programs and projects at the provincial level will be considered in the RDIP for possible funding of NGAs/RLAs.

Monitoring and Evaluation

In order to monitor and assess the implementation result of the plan, the MIMAROPA RDP will be

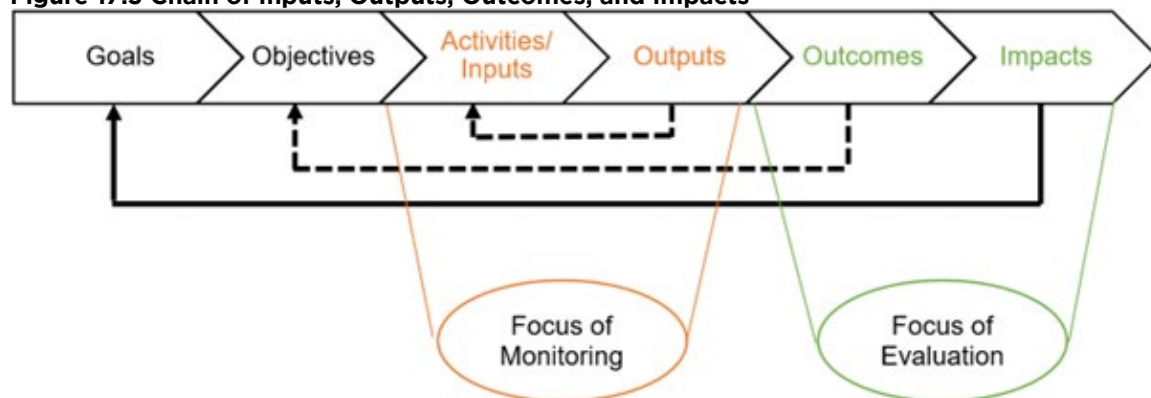
guided by existing Monitoring and Evaluation (M&E) frameworks and policies of the National Government.

The monitoring will track mainly the use of inputs (activities) and outputs, and to some degree will also track the intermediate outcomes.

In contrast, the evaluation will take place at specific moments, and will permit an assessment of a program's progress over a longer period of time. Evaluation will track changes and will focus more on the outcomes and impact level. This is illustrated by the following graphic, which shows the link of the chain of inputs, outputs, outcomes and impacts with the planning cycle.

Output measurement shows the realization of activities. Outcome measurement shows in what degree direct objectives and anticipated results are realized. Impact assessment shows the degree in which the overall objective or goal of the program is realized.

Figure 17.3 Chain of Inputs, Outputs, Outcomes, and Impacts



Source: 2016 RPMEs Operational Guidelines

The monitoring and evaluation obligations of NGAs are established by existing legislation and those responsibilities must continue to be fulfilled throughout the implementation of the RDP. Different departments and agencies shall continue their monitoring and evaluation responsibilities as defined under their mandate.

The MIMAROPA Regional Project Monitoring Committee (RPMC), in coordination with implementing Departments and Agencies, and as mandated under series of issuances including Executive Order (EO) 308, Memorandum Order (MO) 175, EO 376, Republic Act (RA) 7160, EO 93 and NEDA Memorandum Circular (MC) 1-94, shall take the lead and exercise oversight on the progress of development efforts, facilitate program and project implementation, devolve project facilitation, conduct problem-solving, monitoring, and evaluation to the provincial, city and municipal levels, receive regular reports and updates from the agencies through the ProyekTanglaw System (eRPMEs), and submit to the National Project Monitoring Committee (NPMC), and RDC status reports of programs/projects implemented in the region.

A quick summary of the status of programs, projects, and activities included in the RDP will be made available on the NEDA/RDC MIMAROPA website through a ProyekTanglaw System dashboard.

The progress towards achieving the identified outcomes in the RDP will be monitored and assessed using indicators and interim targets as identified in the accompanying document, Results Matrix (RM). The RM has been instituted in 2011 as an instrument designed to provide results orientation to the Plan. It is anchored on results-based management (RbM), which highlights the achievement of outcomes and impact. It aims to strengthen government-wide results orientation that allows for regular performance assessment of the Plan.

As a living document, the RM is regularly updated to ensure responsiveness to the region's continuously evolving development landscape. The RDP 2023-2028 Results Matrix also contains indicators on Sustainable Development Goals. Performance of these indicators is also included in the Regional Development Report. In support of this, MIMAROPA RDC created a Special Regional Sub-Committee on the SDG which conducted its organizational meeting in December 2020.

The NEDA Secretariat coordinates the annual preparation of the Regional Development Report (RDR). The MIMAROPA RDR contains an assessment of the performance of the region for a given year based on the targets of the MIMAROPA RDP and its accompanying Results Matrix (RM). It also provides strategic and policy direction to refocus priorities and/or catch-up with the targets.

Acronyms

MIMAROPA	Mindoro, Marinduque, Romblon, and Palawan
3Rs	Reading, Writing, and Arithmetic
4Ks	Kabuhayan at Kaunlaran ng Kababayang Katutubo
4Ps	Pantawid Pamilyang Pilipino Program
A&D	Alienable and Disposable Land
A&E	Accreditation and Equivalency Program
AACUP	Accredited Agency of Chartered Colleges and Universities in the Philippines
ABEMIS	Agricultural and Biosystems Engineering Management Information System
ACPC	Agricultural Credit Policy Council
AD/AL	Ancestral Domain/Ancestral Land
AFF	Agriculture, Forestry, and Fisheries
AFMA	Agriculture and Fisheries Modernization Act
AFP	Armed Forces of the Philippines
AGDB	Authorized Government Depository Banks
AGS/DBs	Authorized Government Servicing/Depository Banks
AGSB	Authorized Government Servicing Banks
AHD	Adolescent Health and Development
AICS	Assistance to Individuals in Crisis Situations
AIP	Annual Investment Program
ALS	Alternative Learning System
AMTEC	Agricultural Machinery Testing and Evaluation Center
ANYO	Agri-Negosyo Program
APIS	Annual Poverty Indicators Survey
ARO	Agency Regional Offices
ARTA	Anti Red Tape Authority
ARTUD	Areas Restricted to Urban Development
ASF	African Swine Fever
ATI	Agricultural Training Institute
ATM	Automated Teller Machine
BADACs	Barangay Anti-Illegal Drug Abuse Councils
BAI	Bureau of Animal Industry
BARM	Bangsamoro Autonomous Region in Muslim Mindanao
BASIL	Balik Sigla sa Ilog and Lawa
BBB	Build, Build, Build
BBM	Build Better More
BBP	Bayanihang Bayan Program
BEFF	Basic Education Facilities Fund
BE-LCP	Basic Education Learning Continuity Plan
BFAR	Bureau of Fisheries and Aquatic Resources
BFP	Bureau of Fire Protection

BFS	Balanced Fertilization Strategy
BHS	Barangay Health Station
BIMP-EAGA	Brunei Darussalam-Indonesia-Malaysia- Philippines – East ASEAN Growth Area
BINs	Barangay Information/Intelligence Networks
BINs	Barangay Information Networks
BISELCO	Busuanga Island Electric Cooperative, Inc.
BIST	Business Innovation through S&T
BJMP	Bureau of Jail Management and Penology
BLGF	Bureau of Local Governance and Finance
BLP	Basic Literacy Program
BLSS—SHD	Bureau of Learners Support Services—School Health Division
BMBE	Barangay Micro Business Enterprises
BMIP	Batangas-Mindoro Interconnection Project
BOC	Bureau of Customs
BOD	Biochemical Oxygen Demand
BOSS	Business One-Stop Shop
BOT	Build Operate Transfer
BPAT	Barangay Peacekeeping Action Team
BPBH	Balik Pinay, Balik Hanapbuhay
BPCO	Building Permits and Certificates of Occupancy
BPI	Bureau of Plant Industry
BPLS	Business Permits and Licensing System
BRC	Business Resource Center
BS	Bachelor of Science
BSP	Bangko Sentral ng Pilipinas
BSP SLRO	Bangko Sentral ng Pilipinas South Luzon Regional Office
BSWM	Bureau of Soils and Water Management
BTR	Bureau of Treasury
BuCor	Bureau of Corrections
CAAP	Civil Aviation Authority of the Philippines
CAAs	Conflict Affected Areas
CAB	Civil Aeronautics Board
CADT	Certificate of Ancestral Domain Title
CAIR	Center for Artificial Intelligence Research
CALABARZON	Cavite, Laguna, Batangas, Rizal, and Quezon
CAMP	COVID-19 Adjustment Measures Program
CAR	Cordillera Administrative Region
CARP	Comprehensive Agrarian Reform Program
CBMS	Community-Based Monitoring System
CBT	Competency-Based Training

CCC	Climate Change Commission
CCE	Climate Change Expenditure
CCET	Climate Change Expenditure Tagging
CCGT	Critical Combined-Cycle Gas Turbine
CD	Communicable Disease
CDA	Cooperative Development Authority
CDC	City Development Council
CDFs	Controlled Disposal Facilities
CDP	Comprehensive Development Program
CDs	Communicable Diseases
CFIDP	Coconut Farmers and Industry Development Plan
CFLC	Community Fish Landing Centers
CHED	Commission on Higher Education
CHR	Commission on Human Rights
CICL	Children in Conflict with the Law
CIDC	Creative Industry Development
CIS	Communal Irrigation Systems
CLPEP	Child Labor Prevention and Elimination Program
CLUP	Comprehensive Land Use Plan
CMCI	Cities and Municipalities Competitiveness Index
CNI	Certificate of Necessity to Import
CNN	Communist Party of the Philippines - National Democratic Front - New People's Army
CNO	Certificate of Non-Overlap
CNTs	CPP-NPA-Terrorists
COA	Commission on Audit
COD	Centers of Development
COE	Centers of Excellence
ComDeV	Committee on Devolution
COPC	Certificate of Program Compliance
COVID-19	Coronavirus Disease 2019
CPP-NPA	Communist Party of the Philippines-New People's Army
CPP-NPA-NDF	Communist Party of the Philippines - New People's Army - National Democratic Front
CRADLE	Collaborative Research and Development to Leverage Philippine Economy
CREATE	Corporate Recovery and Tax Incentives for Enterprises
CSC	Civil Service Commission
CSE	Comprehensive Sex Education
CSE-VAWC	Comprehensive Sexual Education and Violence Against Women and Children
CTG	Communist Terrorist Groups
CVRIS	Climate Vulnerability and Risk Information System

DA	Department of Agriculture
DBM	Department of Budget and Management
DAR	Department of Agrarian Reform
DCP	DepEd Computerization Program
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DGA	Digital Governance Awards
DHSUD	Department of Human Settlements and Urban Development
DICT	Department of Information and Communications Technology
DILG	Department of the Interior and Local Government
DMW	Department of Migrant Workers
DO	Dissolved Oxygen
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOST-PCAARRD	Department of Science and Technology- Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
DOST-TAPI	Department of Science and Technology- Technology Application and Promotion Institute
DOT	Department of Tourism
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DRR/CCA	Disaster Risk Reduction and Climate Change Adaptation
DRRM	Disaster Risk Reduction and Management
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
DTP	Devolution Transition Plan
DWR	Department of Water
EAFM	Ecosystem Approach to Fisheries Management
EAMP	Ecosystem-Approach to Fisheries Management Plan
EBT	Enterprise-Based Trainings
ECAN	Environmentally Critical Areas Network
ECCD F1K	Early Childhood Care and Development in the First 1000 Days
ECCD	Early Childhood Care and Development
E-CLIP	Enhanced Comprehensive Local Integration Program
E-Commerce	Electronic Commerce
ECQ	Enhanced Community Quarantine
EDCOM II	Second Congressional Commission on Education

eFOI	Electronic Freedom of Information
EMB	Environmental Management Bureau
EMI	Electronic Money Issuer
ENGP	Enhanced National Greening Program
ENNS	Expanded National Nutrition Survey
EO	Executive Order
EODB-EGSD	Ease of Doing Business and Efficient Government Service Delivery
EPAPH	Enhanced Partnership against Hunger and Poverty
EPIRA	Electric Power Industry Reform Act
ERC	Energy Regulatory Commission
eRPMES	Electronic Regional Monitoring and Evaluation System
ESA	Emergency Shelter Assistance
ESWWM	Electricity, Steam, Water, and Waste Management
ESG	Environment, Social, and Governance
EWS	Early Warning System
FabLab	Fabrication Laboratories
FAO	Fisheries Administrative Order
FBSE	Filipino Brand of Service Excellence
FC	Fecal Coliform
FCA	Farmers' Cooperative and Association
FDI	Foreign Direct Investment
FDP	Full Disclosure Policy
FHE	Free Higher Education
FIES	Family Income and Expenditure Survey
FinTech	Financial Technologies
FIRe	Fourth Industrial Revolution
FIs	Foreign Investments
FishCoRe	Fisheries and Coastal Resiliency
FishCRRM	Fisheries and Coastal Resilient Resource Planning and Management
FITS	Farmers' Information and Technology Services
FMA	Fisheries Management Areas
FMR	Farm-to-Market Road
FMRNP	Farm-to-Market Road Network Plan
FMV	Field Monitoring Visit
FRs	Former Rebels
FSF	Functions, Services, and Facilities
FTE	Full Time Equivalent
FUSA	Firmed-Up Service Area
GAD	Gender and Development
GAP	Good Agricultural Practice

GASTPE	Government Assistance to Students and Teachers in Private Education
GRDP	Gross Regional Domestic Product
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEDSI	Gender Equality, Disability and Social Inclusion
GEOAGRI	Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure
GEOP	Green Energy Option Program
GHG	Greenhouse Gas
GHH	Geologic/ Hydro Meteorologic Hazards
GIDAs	Geographically Isolated and Disadvantaged Areas
GII	Global Innovation Index
GIS	Geographic Information System
GOCC	Government-Owned and Controlled Corporation
GRDP	Gross Regional Domestic Product
GVA	Gross Value Added
GWHS	Government Web Hosting Services
GWT	Government Web Template
HCPN	Health Care Provider Network
HVCD	High Value Crops Development
HE	Higher Education
HEI	Higher Education Institution
HFEP	Health Facilities Enhancement Program
HPAI	Highly Pathogenic Avian Influenza
HRH	Human Resources for Health
HRMO	Human Resource and Management Offices
HUC	Highly Urbanized City
HVCD	High Value Crops Development Program
IBPLS	Integrated Business Permits and Licensing System
IAS	Internal Audit Service
ICAO	International Civil Aviation Organization
ICC	Indigenous Cultural Communities
ICM	Integrated Coastal Management Act
ICRUMP	Integrated Coastal Resources Use and Management Plan
ICT	Information and Communications Technology
IDPs	Individual Development Plans
IEC	Information, Education, and Communication
IFRM	Integrated Flood Risk Management
IFWD PH	Innovations for Filipinos Working Distantly from the Philippines
IP	Indigenous Peoples

IP	Intellectual Property
IPCC	Intergovernmental Panel on Climate Change
IPMR	Indigenous Peoples Mandatory Representative
IPOPHIL	Intellectual Property Office of the Philippines
IPP	Intellectual Property Products
IPR	Intellectual Property Rights
IPRA	Indigenous Peoples' Rights Act
IPS	Indigenous Political Structures
IPs/ICCs	Indigenous Peoples'/Indigenous Cultural Communities'
ITA	Internal Tax Allotment
IRA	Internal Revenue Allotment
IROAD	Integrated Road for Agriculture and Development
IPOPHIL	Intellectual Property Office of the Philippines
IRR	Implementing Rules and Regulations
ISFs	Informal Settler Families
ISO	International Organization for Standardization
ISPs	Internet Service Providers
IUU	Illegal, Unreported, and Unregulated
IWRM	Integrated Water Resources Management
JAO	Joint Administrative Order
JJA	June, July, and August
JMC	Joint Memorandum Circular
JSA	Job Search Assistance Program
JSCC	Justice Sector Coordinating Council
KAYA	Kapital Access for Young Agripreneurs Program
KEDP	Kaanib Enterprise Development Project
KIG	Kalayaan Island Group
KMME	Kapatid Mentor Micro Enterprise
KSA	Key Shelter Agencies
LCAC	Local Culture and Arts Council
LCCAP	Local Climate Change Action Plan
LCP	Learning Continuity Plan
LDC	Local Development Councils
LDIP	Local Development Investment Program
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMPs	Local Disaster Risk Reduction and Management Plans
LEE	Local Economic Enterprise
LFC	Local Fees and Charges
LGC	Local Government Code
LGRC	Local Governancce Resource Center

LGSF-SBDP	Local Government Support Fund-Support to Barangay Development Program
LGUs	Local Government Units
LMI	Labor Market Information
LMS	Learning Management Systems
LNAP	Local Nutrition Action Plan
LPCC	Local Price Coordinating Councils
LPD	Livestock, Poultry, and Dairy
LPDOs	Local Population Development Offices
LPEs	Localized Peace Arrangements
LPMC	Local Project Monitoring Committee
LPTRP	Local Public Transport Route Plan
LRA	Land Registration Authority
LRCP	Learning Recovery and Continuity Plan
LSDF	Luzon Spatial Development Framework
LSP	Local Shelter Plan
LSWMP	Local Solid Waste Management Plan
LTO	Land Transportation Office
LUBELCO	Lubang Electric Cooperative, Inc.
LUCs	Local Universities and Colleges
LUDIP	Land Use Development and Infrastructure Plan
M&E	Monitoring and Evaluation
MAARRDEC	MIMAROPA Agriculture, Aquatic and Natural Resources Research and Development Consortium
MAM	March, April, and May
MARELCO	Marinduque Electric Cooperative, Inc.
MARINA	Maritime Industry Authority
MARLIN	Modern and Resilient Livelihood Investments
MASL	Meters Above Sea Level
MBE	Micro Business Enterprise
MBC	Mindoro Biodiversity Corridor
MC	Memorandum Circular
MCIR	Mindoro Cross Island Road
MDC	Municipal Development Council
MENR	Municipal Environment and Natural Resources
MFI	Malampaya Foundation, Inc.
MHRDC	MIMAROPA Health Research and Development Consortium
MICE	Meetings, Incentives, Conventions, and Exhibitions
MICR	Mindoro Island Circumferential Road
MinSU	Mindoro State University
MITDP	MIMAROPA Intermodal Transportation Development Plan
MMK	Malinis at Masaganang Karagatan

MMT	Multi-partite Monitoring Team
MO	Memorandum Order
MOA	Memorandum of Agreement
MOOC	Massive Open Online Courses
MPAs	Marine Protected Areas
MPR	Malnutrition Prevalence Rates
MPS	Municipal Police Stations
MPSUID	Master Plan for Sustainable Urban Infrastructure Development
MQLEX	Marinduque – Quezon Link Expressway
MRDA	MIMAROPA Regional Research and Development Agenda
MRFs	Materials Recovery Facilities
MSB	Money Service Business
MSC	Marinduque State College
MSME	Micro, Small, and Medium Enterprises
MTB-MLE	Mother Tongue-Based Multilingual Education
MTF-ELCAC	Municipal Task Force to End Local Communist Armed Conflict
MW	Mega Watts
MYC	MIMAROPA Youth Center
NAFMIP	National Agriculture and Fisheries Modernization and Industrialization Plan
NALUA	National Land Use Act
NAO	Nutrition Action Officers
NBI	National Bureau of Investigation
NBP	National Broadband Program
NCA	Natural Capital Accounting Act
NCC	National Competitiveness Council
NCCA	National Commission for Culture and the Arts
NCCAG	National Color-Coded Agricultural Guide
NCD	Non-communicable Disease
NCIP	National Commission on Indigenous Peoples
NC	Negosyo Centers
NCR	National Capital Region
NDC	Nationally Determined Contribution
NDHS	National Demographic and Health Survey
NEA	National Electrification Administration
NEAP	National Educators’ Academy of the Philippines
NEDA	National Economic and Development Authority
NFFIS	National Farmers and Fisheries Information System
NGAs	National Government Agencies
NGCP	National Grid Corporation of the Philippines
NGOs	Non-Government Organizations

NIA	National Irrigation Administration
NIASD	National Innovation Agenda and Strategy Document
NIC	National Innovation Council
NICER	Niche Centers in the Regions for R&D
NIMP	National Irrigation Master Plan
NIRT	National Internal Revenue Taxes
NIS	National Irrigation System
NLP	National Livestock Program
NNC	National Nutrition Council
NOAP	National Organic Agriculture Program
NPA	New People's Army
NPMC	National Project Monitoring Committee
NPOA-ML	National Plan of Action for the Prevention, Reduction, and Management of Marine Litter
NRPF	National Resettlement Policy Framework
NSFI	National Strategy for Financial Inclusion
NSMP	National Safe Motherhood Program
NSS	National Spatial Strategy
NTA	National Tax Allotment
NTC	National Telecommunications Commission
NTESDP	National Technical Education and Skills Development Plan
NTF-ELCAC	National Task Force to End Local Communist Armed Conflict
NVOCC	Non-Vessel Operating Common Carriers
ODA	Official Development Assistance
ODs	Open Dumpsites
OER	Open Educational Resources
OFWs	Overseas Filipino Workers
OMECCO	Occidental Mindoro Electric Cooperative, Inc.
OMSC	Occidental Mindoro State College
OPT	Operation Timbang
ORMECO	Oriental Mindoro Electric Cooperative, Inc.
OSHA	Occupational Safety and Health Administration
OSY	Out of School Youth
OTOP	One Town One Product
OWWA	Overseas Workers Welfare Administration
P2P	Point-to-Point
PAC	Provincial Agriculture Center
PAFES	Province Led Agri-Fishery Extension System
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAL	Philippine Airlines
PALECO	Palawan Electric Cooperative, Inc.

PAMANA	Payapa at Masaganang Pamayanan
PAMs	Policies and Measures
PAO	Public Attorney's Office
PAPs	Programs, Activities, and Projects
PAR	Philippine Area of Responsibility
PCA	Philippine Coconut Authority
PCF	Performance Challenge Fund
PCG	Philippine Coast Guard
PCIC	Philippine Crop Insurance Corporation
PD	Presidential Decree
PDC	Provincial Development Council
PDEA	Philippine Drug Enforcement Agency
PDL	Persons Deprived of Liberty
PDP	Philippine Development Plan
PDPFP	Provincial Development and Physical Framework Plan
PDRMOs	Provincial Disaster Risk Reduction Management Offices
PESFA	Private Education Student Financial Assistance
PESO	Public Employment Services Offices
PFPD	Policy Formulation and Planning Division
PGP	Provincial Government of Palawan
PhilHealth	Philippine Health Insurance Corporation
PhilSys	Philippine Identification System
PHILVOLCS	Philippine Institute of Volcanology and Seismology
PHLS	Philippine Public Health Laboratory System
PIA	Philippine Innovation Act
PIDS	Philippine Institute for Development Studies
PIP	Public Investment Program
PIPOL	Public Investment Program Online System
PMC	Project Monitoring Committee
PMNP	Philippine Multisectoral Nutrition Project
PNP	Philippine National Police
POP	Persistent Organic Pollutants
POPCOM	Commission on Population and Development
PO4	Phosphate
PPA	Parole and Probation Administration
PPA	Philippine Ports Authority
PPAN	Philippine Plan of Action for Nutrition
PPAs	Programs, Projects, and Activities
PPCIA	Puerto Princesa City International Airport
PPDOs	Provincial Planning and Development Offices

PPF	Prison and Penal Farm
PPP	Public-Private Partnership
PQF	Philippine Qualifications Framework
PQF-NCC	Philippine Qualifications Framework-National Coordinating Council
PRC	Philippine Regulation Commission
PSA	Philippine Statistics Authority
PSCED	Philippine Standard Classification of Education
PSF	Philippine Skills Framework
PSF	People Survival Fund
PSIC	Philippine Standard Industrial Classification
PSOC	Philippine Standard Occupational Classification
PSRs	Private Sector Representatives
PSU	Palawan State University
PTB	Passenger Terminal Buildings
PTF-ELCAC	Provincial Task Force to End Local Communist Armed Conflict
PUVMP	Public Utility Vehicle Modernization Program
PWD	Persons with Disability
PWSSMP	Philippine Water Supply Sanitation Master Plan
PWUDs	Persons Who Use Drugs
QMS	Quality Management System
R&D intensity	Research and Development Intensity
R&D	Research and Development
RA	Republic Act
RADIUS	Research and Development Information Unified System
RAICs	Regional Agri-Industrial Centers
RbM	Results-based Management
RCAs	Residual Containment Area
RCC	Regional Competitiveness Council
RCEF	Rice Competitive Enhancement Fund
RCEP	Regional Comprehensive Economic Partnership
RCM	Rice Crop Manager
RCOA	Retail Competition and Open Access
RDA	Research and Development Agenda
RDC	Regional Development Council
RDCom	Regional Development Committee
RGADC	Regional Gender and Development Committee
RG0	Regional Government Office
RDIP	Regional Development Investment Program
RDLead	R&D Leadership Program
RDP	Regional Development Plan

RDR	Regional Development Report
RESP	Rice Extension Services Program
RGC	Regional Government Center
RIIC	Regional Inclusive Innovation Centers
RLAs	Regional Line Agencies
CRLTA	Comprehensive Rapid Land Tenure Appraisal
RLTA	Rapid Land Tenure Appraisal
RLUC	Regional Land Use Committee
RM	Results Matrix
RNC	Regional Nutrition Committee
ROMELCO	Romblon Electric Cooperative, Inc.
RORO	Roll-On, Roll-Off
ROWA	Right-of-Way Act
RFPF	Regional Physical Framework Plan
RPMC	Regional Project Monitoring Committee
RPMES	Regional Project Monitoring and Evaluation System
RPOC	Regional Peace and Order Council
RPS	Renewable Portfolio Standards
RPT	Real Property Tax
RR4LGUsIS	Regulatory Reform for LGUs Information System
RRDIC	Regional Research, Development, and Innovation Committee
RSBSA	Registry System for Basic Sectors in Agriculture
RSDF	Regional Spatial Development Framework
RSU	Romblon State University
RTF-ELCAC	Regional Task Force to End Local Communist Armed Conflict
RTWG	Regional Technical Working Group
S4CP	Science for Change Program
SAAD	Special Area for Agricultural Development Program
SAE	Small Area Estimates
SAFDZ	Strategic Agricultural and Fishery Development Zones
SALT	Sloping Agricultural Land Technology
SALT 2	Simple Agro-Livestock Technolog
SALT 3	Sustainable Agroforestry Land Technology
SALT 4	Small Agrofruit Livelihood Technology
SARAI	Smarter Approaches to Reinvigorate Agriculture as an Industry
SB	Sangguniang Bayan
SBFP	School-Based Feeding Program
SC	Supreme Court
SDG	Sustainable Development Goals
SEC	Securities and Exchange Commission

SEP	Strategic Environmental Plan
SETUP	Small Enterprise Technology Upgrading Program
SFF	Small Farmers and Fisherfolk
SFM	Sustainable Forest Management Act
SFP	Supplementary Feeding Program
SGLG	Seal of Good Local Governance
SHS	Senior High School
SHS VP	Senior High School Voucher Program
SIPP	Strategic Investment Priority Plan
SIPTVETS	Supporting Innovation in the Philippine Technical Vocational Education and Training System
SLEX	South Luzon Expressway
SLFs	Sanitary Landfills
SMERA	SME Roving Academy
SOCCSKSARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos City
SON	September, October, and November
SP	Sangguniang Panlungsod
SP	Social Protection
SPISC	Social Pension for the Indigent Senior Citizens
SPPAM	Social Program for Adolescent Mothers and their Children
SPPAMC	Social Protection Program for Adolescent Mothers and their Children
SRIP	Small Reservoir Irrigation Projects
SRNH	Strong Republic Nautical Highway
SRS	Skills Registry System
SSF	Shared Services Facilities
SSP	Shared Socioeconomic Pathways
SST	Self-Supporting Tower
STAR	Southern Tagalog Arterial Road
STDP	Sustainable Tourism Development Project
STEP	Special Training for Employment Program
STI	Science, Technology, and Innovation
STIRDC	Southern Tagalog Islands Research and Development Consortium
SUCs	State Universities and Colleges
SUN	Scaling-Up Nutrition
SuPrIM	Support to Project Implementation and Management
SWM	Solid Waste Management
SY	School Year
TBI	Technology Business Incubators
TBR	Technical Budget Review
TCI	The Challenge Initiative

TDP	Tulong Dunong Program
TelCos	Telecommunication Companies
TES	Tertiary Education Subsidy
TESDA	Technical Education and Skills Development Authority
TEZ	Tourism Enterprise Zones
TFA	Transfatty Acid
TIELCO	Tablas Island Electric Cooperative, Inc.
TIEZA	Tourism Infrastructure and Enterprise Zone Authority
TowerCos	Tower Companies
TR-4	Toll Road 4
TRIP	Tourism Road Infrastructure Program
TRIP	Three-Year Rolling Infrastructure Program
TSP	Total Suspended Particulates
TSS	Teacher Salary Subsidy
TTIs	TESDA Technology Institutions
TVET	Technical-Vocational Education and Training
TWSP	Training for Work Scholarship Program
TWG-WRM	Technical Working Group on Water Resource Management
UAQTEA	Universal Access to Quality Tertiary Education Act
UHC	Universal Health Care
UNFCCC	United Nations Framework Convention on Climate Change
UNIFAST	Unified Financial Assistance System for Tertiary Education Act
VAT	Value Added Tax
VRA	Valuation Reform Act
VIP	Virology and Vaccine Institute of the Philippines
WACS	Waste Analysis and Characterization Studies
WASH	Water, Sanitation, and Hygiene
WEDC	Women in Especially Difficult Circumstances
WesCom	Western Command
WHO	World Health Organization
Wi-Fi	Wireless Fidelity
WIMLMS	Web-based Inventory Monitoring and Logistics Management System
WONA	Whole-of-Nation Approach
WPS	West Philippine Sea
WPU	Western Philippines University
WQMA	Water Quality Management Area
WRI	World Risk Index
WSS	Water Supply and Sanitation
WtE	Waste-to-Energy
YPHP	Yolanda Permanent Housing Program

Glossary

Cropping Intensity	It is the number of times a crop is planted per year in a given agricultural area. It is the ratio of effective crop area harvested to the physical area. Area harvested - refers to the actual area from which harvests are realized. This excludes crop areas which were totally damaged.
Food Security	It is the access by all people at all times to enough food for an active, healthy life. It includes at a minimum: a) the ready availability of nutritionally-adequate and safe foods; and b) an assured ability to acquire acceptable foods in socially acceptable ways without resorting to emergency food supplies, scavenging, stealing, or other coping strategies.
Food availability	It is the dimension addresses supply side of the food security and expects sufficient quantities of quality food from domestic agriculture production or import.
Food accessibility	It refers to the access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet. It addresses whether the households or individuals have enough resources to acquire appropriate quantity of quality foods, thus, it encompasses their income, expenditure and buying capacity. There are two aspects of food access – the economic and physical access. Economic access refers to factors such as income, poverty and other indicators of buying capacity. Physical access indicators are related to infrastructure and facilities that hasten the access to food. Furthermore, the indicators were grouped into the level of importance which were either key or support. Key indicators are those which best describe the dimension. In the absence of available data for the key indicators, the support indicators will be the alternative for use.
Food Utilization	Food utilization is one of the three dimensions of food security. It is defined as the ability of the human body to ingest and metabolize food through adequate diet, clean water, good sanitation and health care to reach a state of nutritional well-being where all physiological needs are met. In this dimension, it is essential to know if the food available in a given period of time had been accessed and well utilized. A household makes decisions on what food to consume and how to allocate food within the household. Appropriate food intake is vital for nutritional status of the populace.
Food Insecurity	It is the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.
Self-Sufficiency Ratio	It shows the magnitude of production in relation to domestic utilization. It is the extent to which a country's supply of commodities is derived from its domestic production or the extent to which a country relies on its own production resources. A ratio of less than 100 percent indicates inadequacy of food production to cope with the demand of the population; equal to 100 percent indicates that food production capacity of the sector is just enough to support the food needs of the population; ratio of greater than 100 percent indicates that local production is more than enough to support the domestic requirements. The higher the ratio, the greater the self-sufficiency.
Capacity building	The process of developing necessary skills, abilities and resources.
Cities and Municipalities Competitiveness Index	An annual ranking of Philippine cities and municipalities developed by the National Competitiveness Council through the Regional Competitiveness Committees (RCCs) with the assistance of the United States Agency for International Development. (CMCI-DTI)
Comprehensive Development Plan	A six-year sectoral plan of the local government which outlines the development of allocated land for different uses.
Decentralization	A system whereby local government units will be given more powers, authority, responsibilities, and resources. It shall proceed from the National Government to the local government units. (LGC of 1991)

Devolution	The act by which the national government confers power and authority upon the various local government units to perform specific functions and responsibilities. (LGC of 1991).
Devolution Transition Plan	Tool of local government units in carrying out the transition to full devolution.
Ease of Doing Business	Streamline government procedures to reduce red tape, expedite transactions and lessen repetitive and non-value-adding processes.
Full Disclosure Policy	Requires local governments to fully disclose particular financial documents to keep their constituents informed of how the LGU budget is managed, disbursed and used. (DILG).
Government Service	The process or transaction between requesting parties and government offices/ agencies involving applications for any privilege, right, reward, license, clearance, permit or authorization, concession, of for any modification, renewal or extension of the enumerated applications or requests which are acted upon in the ordinary course of business of the agency/ office concerned. (RA 11032).
Indigenous People	Inheritors of unique culture, social, economic and political characteristics.
Internal Audit Service	Audit of internal control and processes that determine the degree of compliance within the set standards, review of financial management records and reports, evaluate management deficiencies and recommend actions to improve the operation and delivery of services.
Performance Challenge Fund	Performance-based incentive fund that puts premium on transparency and accountability.
Red Tape	Any regulation, rule, or administrative procedure or system that is ineffective or detrimental in achieving its intended objectives and, as a result, produces slow, suboptimal, and undesirable social outcomes. (RA 11032).
Regional Government Center	The site within the regional center where regional government offices and other B3overnment instrumentalities shall be located. (IRR-RA 10879).
Regulation	Any legal instrument that gives effect to a government policy intervention and includes licensing, imposing information obligation, compliance to standards or payment of any form of fee, levy, charge or any other statutory and regulatory requirements necessary to carry out activity. (RA 11032).
Seal of Good Local Governance	A progressive assessment system that gives distinction to remarkable local government performance across several areas. (DILG).
Agribusiness	It refers to any business related to agri-fishery activities from seed and agri-inputs supply, farm machinery, production, harvesting and transport, processing, wholesale and retail selling.
Farm-to-Market Road	Refer to roads linking the agriculture and fisheries production sites, coastal landing points and post-harvest facilities to the market and arterial roads and highways.
Gross Regional Domestic Product (GRDP)	It measures the economic performance of a region. It covers the value of goods and services produced in the region. It measures the relative contribution of the three major industries sectors: AFF, Industry, and Services in the region.
Gross Value Added (GVA)	It is defined as the value of output less the value of intermediate consumption. GVA is composed of compensation, depreciation, indirect taxes paid net of subsidies received, and the operating surplus, which is the payment to the producer as entrepreneur.
Growth Rate of Regional GVA in AFF	It measures the pace of growth of the agriculture, forestry and fishing at the regional level.
Share of Regional GVA in AFF to GRDP	It shows the performance or contribution of the region's agriculture sector to the region's total economy.
Alternative Learning	A parallel learning system to provide a viable alternative to the System existing formal education instruction. It encompasses both the non-formal and informal sources of knowledge and skills (2017 PSCEd).

Basic Education	Education intended to meet basic learning needs which lays the foundation on which subsequent learning can be based. It encompasses early childhood, elementary and high school education as well as alternative learning systems for out-of-school youth and adult learners and includes education for those with special needs (2017 PSCED).
Early childhood education	Learning and educational activities with a holistic approach to support children's early cognitive, physical, social and emotional development and introduce young children to organized instruction outside of the family context to develop some of the skills needed for academic readiness and to prepare them for entry into primary education (2017 PSCED).
Higher Education	Stage of formal education, or its equivalent, requiring completion of secondary education and covering programs of study leading to bachelor and advanced degrees (2017 PSCED).
LMIs	Measures to enhance employment opportunities, and protect the rights and welfare of workers (NEDA-SDC Cabinet Resolution No. 1, s. 2007).
Mental health	A state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in. Mental health is a basic human right. And it is crucial to personal, community and socio-economic development (https://www.who.int/).
PhiljobNet	An internet-based job and applicant matching system which aims to fast track jobseekers search for jobs and employers search for manpower. It provides jobseekers with a listing of job vacancies posted by accredited employers and manpower recruitment agencies (https://ble.dole.gov.ph).
Social Insurance	Programs to mitigate income risks (NEDA-SDC Cabinet Resolution No. 1, s. 2007).
Social Protection	Constitutes policies and programs that seek to reduce poverty and vulnerability to risks and enhance the social status and rights of the marginalized by promoting and protecting livelihood and employment, protecting against hazards and sudden loss of income, and improving people's capacity to manage risks. (NEDA-SDC Cabinet Resolution No. 1, s. 2007).
Social Safety Nets	Urgent responses & mechanisms that address effects of socio-economic shocks, disasters and calamities on vulnerable groups (NEDA-SDC Cabinet Resolution No. 1, s. 2007).
Social Welfare	Preventive and developmental interventions to support the minimum basic needs of the poor (NEDA-SDC Cabinet Resolution No. 1, s. 2007).
Universal Health	All Filipinos are guaranteed equitable access to quality and affordable health care goods and services, and protected against financial risk (https://doh.gov.ph/).

References

- Philippine Food Security Information System [PhilFSIS], 2014a
- Life Sciences Research Office, 1990
- World Food Summit, 1996
- Food Security Indicators, Philippine Statistics Authority, 2018
- Analysis of Fruit and Vegetable Value Chains in the Philippines, ADB and SEARCA, 2021
- National Irrigation Master Plan, 2020-2030
- National Agriculture and Fisheries Modernization and Industrialization Plan, 2021-2030
- Republic Act No. 8435 or the Agriculture and Fisheries Modernization Act of 1997
- Department of the Interior and Local Government MIMAROPA. 2022. Annual Accomplishment Report.
- Department of the Interior and Local Government MIMAROPA. 2021. Annual Accomplishment Report.
- Department of the Interior and Local Government MIMAROPA. 2021. Guidelines for Online Monitoring System of the Implementation of Business Permits and Licensing System (BPLS) and Building Permits and Certificates of Occupancy (BPCO). Retrieved from: <https://dilg.gov.ph/issuances/mc/Guidelines-for-Online-Monitoring-System-of-the-Implementation-of-Business-Permits-and-Licensing-System-BPLS-and-Building-Permits-and-Certificates-of-Occupancy-BPCO/3333>
- Department of the Interior and Local Government MIMAROPA. 2021. Guidelines on Streamlining of LGU Systems and Procedures on Business and Non Business-Related Services for Cities and Municipalities. Retrieved from: <https://dilg.gov.ph/issuances/jc/Guidelines-on-Streamlining-of-LGU-Systems-and-Procedures-on-Business-and-Non-Business-Related-Services-for-Cities-and-Municipalities/178>
- Department of the Interior and Local Government MIMAROPA. 2019. Guidelines on the Regulatory Reform for LGUs pursuant to the Ease of Doing Business and Efficient Government Service Delivery (EODB-EGSD) Act of 2018. Retrieved from: <https://www.dilg.gov.ph/issuances/jc/Guidelines-on-the-Regulatory-Reform-for-LGUs-pursuant-to-the-Ease-of-Doing-Business-and-Efficient-Government-Service-Delivery-EODB-EGSD-Act-of-2018/124>
- Department of the Interior and Local Government MIMAROPA. 2019. Guidelines in the Integration of the Issuance of Barangay Clearance in the Permitting Processes of Cities and Municipalities. Retrieved from: <https://dilg.gov.ph/issuances/mc/Guidelines-in-the-Integration-of-the-Issuance-of-Barangay-Clearance-in-the-Permitting-Processes-of-Cities-and-Municipalities/3078>
- Department of Trade and Industry (n.d.). Cities and Municipalities Competitiveness Index. Retrieved from: <https://cmci.dti.gov.ph/data-portal.php>
- National Economic and Development Authority MIMAROPA (2019). Regional Development Plan 2017-2022 Midterm Update
- National Economic and Development Authority MIMAROPA (2022). MIMAROPA Regional Development Report 2021
- Open Government Partnership (n.d.). Indigenous Representation in Local Legislative Councils. Retrieved from: <https://www.opengovpartnership.org/members/philippines/commitments/PH0065/>
- Technical Note #72 Sloping Agricultural Land Technology, How to Farm Hilly Land without Losing Soil by Mindanao Baptist Rural Life Center Editorial Staff and published by ECHOcommunity.org in 2012.
- National Irrigation Master Plan, 2020-2030
- National Agriculture and Fisheries Modernization and Industrialization Plan, 2021-2030
- Technical Notes, Agricultural Indicators System (Economic Growth: Agriculture), 2017-2021
- Republic Act No. 8435 or the Agriculture and Fisheries Modernization Act of 1997
- Cooperative Development Authority, (2020). Effects of COVID-19 among Cooperatives. Retrieved from: https://cda.gov.ph/wp-content/uploads/2021/01/Survey_Results_Illustration.pdf
- Taneja, A. (2021). "Many Thought the Pandemic Would Imperil Microfinance. It Did the Opposite". Asian Development Bank Blog. Retrieved from: <https://blogs.adb.org/blog/many-thought-pandemic-would-imperil-microfinance-it-did-opposite>

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PLANNING COMMITTEE ON HUMAN AND SOCIAL DEVELOPMENT

CHAPTER 4.1. BOOST HEALTH AND NUTRITION

Lead Agency/Chair: Department of Health MIMAROPA

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Member Agencies:

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Department of the Interior and Local Government MIMAROPA

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Philippine Health Insurance Corporation

National Commission on Indigenous Peoples MIMAROPA

National Youth Commission

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Vice Chair: NEDA MIMAROPA - DRD

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Department of Information and Communications Technology MIMAROPA

Department of Science and Technology MIMAROPA

Department of Labor and Employment MIMAROPA

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Department of Public Works and Highways

Private Sector Representatives

CHAPTER 4.3. ESTABLISH LIVABLE COMMUNITIES

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PLANNING COMMITTEE ON REDUCING VULNERABILITIES AND PROTECT PURCHASING POWER

CHAPTER 5.1. ENSURE FOOD SECURITY AND PROPER NUTRITION

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Vice Chair: Department of Agrarian Reform MIMAROPA
Co-Vice Chair: NEDA MIMAROPA - PDIPBD

Member Agencies:

Food and Drug Administration MIMAROPA	Philippine Crop Insurance Corporation 4
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Department of Labor and Employment MIMAROPA	National Irrigation Administration MIMAROPA
Philippine Statistics Authority MIMAROPA	Provincial/City Planning and Development Coordinators
Cooperative Development Authority MIMAROPA	Private Sector Representatives

CHAPTER 5.2 STRENGTHEN SOCIAL PROTECTION

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Department of Agriculture MIMAROPA	Department of Education MIMAROPA
Department of the Interior and Local Government MIMAROPA	Department of Health MIMAROPA
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Overseas Workers Welfare Administration MIMAROPA	Philippine Statistics Authority MIMAROPA
Social Security System Calapan Branch	Department of Labor and Employment MIMAROPA
Council for the Welfare of Children	Provincial/City Planning and Development Coordinators
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Member Agencies:

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CHAPTER 8 REVITALIZE INDUSTRY: SCIENCE, TECHNOLOGY, AND INNOVATION-DRIVEN INDUSTRIALIZATION

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CHAPTER 10 ADVANCE RESEARCH AND DEVELOPMENT, TECHNOLOGY, AND INNOVATION

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CHAPTER 11 PROMOTE TRADE AND INVESTMENTS

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PLANNING COMMITTEE ON ENSURING MACROECONOMIC STABILITY

SUBCHAPTER 12.1 PROMOTE AN INNOVATIVE, INCLUSIVE, AND HEALTHY FINANCIAL SECTOR

Lead Agency/Chair: Bangko Sentral ng Pilipinas South Luzon
Vice Chair: NEDA MIMAROPA - PFPD

Member Agencies:

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Cooperative Development Authority MIMAROPA	Pag-IBIG Calapan Branch
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Department of Energy

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PLANNING COMMITTEE ON ENSURING PEACE AND SECURITY AND ENHANCE ADMINISTRATION OF JUSTICE

SUBCHAPTER 14.1. ENSURE PEACE AND SECURITY

Lead Agency/Chair: Philippine National Police MIMAROPA

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Member Agencies:

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Department of the Interior and Local Government MIMAROPA

Department of Information and Communication Technology MIMAROPA

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Philippine Drug Enforcement Agency MIMAROPA

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SUBCHAPTER 14.2. ENHANCE ADMINISTRATION OF JUSTICE

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Department of the Interior and Local Government MIMAROPA

Commission on Human Rights MIMAROPA

Bureau of Jail Management and Penology MIMAROPA

Bureau of Corrections

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Department of the Interior and Local Government MIMAROPA

Development Academy of the Philippines

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Civil Service Commission 4

Commission on Audit

Provincial/City Planning and Development Coordinators

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CHAPTER 16 ACCELERATE CLIMATE ACTION AND STRENGTHEN DISASTER RESILIENCE

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Vice Chair: NEDA MIMAROPA - PDIPBD

Member Agencies:

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Department of the Interior and Local Government MIMAROPA

Department of Science and Technology MIMAROPA

Climate Change Commission

Philippine Statistics Authority MIMAROPA

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Department of Human Settlements and Urban Development MIMAROPA

Department of Agriculture MIMAROPA

Department of Energy

Department of Tourism MIMAROPA

Department of Transportation

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Published by:

National Economic and Development Authority MIMAROPA

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Philippine Development Plan 2023-2028

Table of Contents

Foreword	xiv
Preface	xvi
Acknowledgement	xix
PART I: INTRODUCTION	1
Chapter 1 A Plan for Economic and Social Transformation	5
Health and Social Trends	9
Economic Trends	10
Geopolitical Trends	11
Environmental Trends	12
Technology and Regulations	12
Overview of the Philippine Development Plan 2023-2028	14
PART II: DEVELOP AND PROTECT CAPABILITIES OF INDIVIDUALS AND FAMILIES	27
Chapter 2 Promote Human and Social Development	31
Subchapter 2.1 Boost Health	31
Assessment and Challenges	31
Strategy Framework	34
Strategies	35
Outcome 1: Social determinants of health improved	35
Outcome 2: Healthy choices and behavior enabled	36
Outcome 3: Access, quality, and efficiency of health care improved	37
Outcome 4: Health systems strengthened	38
Legislative Agenda	41
Results Matrix	42
Subchapter 2.2 Improve Education and Lifelong Learning	45
Assessment and Challenges	45
Strategy Framework	46
Strategies	47
Outcome 1: Quality, inclusive, adaptive, resilient, and future-ready basic education for all achieved	47
Outcome 2: Globally competitive and inclusive TVET and higher education, and improved research output attained for a broader knowledge economy	49

Outcome 3: Governance for human capital development improved	51
Legislative Agenda	53
Results Matrix	54
Subchapter 2.3 Establish Livable Communities	56
Assessment and Challenges	56
Strategy Framework	59
Strategies	60
Outcome 1: Social environment promoted	60
Outcome 2: Environmental quality improved	61
Outcome 3: Built environment upgraded	63
Outcome 4: Responsive governance advanced	66
Legislative Agenda	68
Chapter 3 Reduce Vulnerabilities and Protect Purchasing Power	75
Subchapter 3.1 Ensure Food Security and Proper Nutrition	75
Assessment and Challenges	76
Strategy Framework	78
Strategies	79
Outcome 1: Sufficient and stable supply of food commodities attained	79
Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded	81
Outcome 3: Nutrition across all ages improved	83
Legislative Agenda	85
Results Matrix	86
Subchapter 3.2 Strengthen Social Protection	87
Assessment and Challenges	87
Strategy Framework	90
Strategies	91
Outcome 1: A universal, modern, and integrated social protection system achieved	92
Outcome 2: Individual and lifecycle risks mitigated	94
Outcome 3: Economic risks managed	95
Outcome 4: Natural, health, climate, and other human-induced hazards mitigated	96
Outcome 5: Governance and political risks addressed	97
Legislative Agenda	98
Results Matrix	99

Chapter 4 Increase Income-earning Ability	105
Assessment and Challenges	105
Strategy Framework	107
Strategies	107
Outcome 1: Employability increased	107
Outcome 2: Access to employment opportunities expanded	111
Outcome 3: Shared labor market governance achieved	114
Legislative Agenda	117
Results Matrix	117
 PART III: TRANSFORM PRODUCTION SECTORS TO GENERATE MORE QUALITY JOBS AND COMPETITIVE PRODUCTS	121
Chapter 5 Modernize Agriculture and Agribusiness	125
Assessment and Challenges	125
Strategy Framework	128
Strategies	129
Outcome 1: Efficiency of AFF production enhanced	129
Outcome 2: Access to markets and AFF-based enterprises expanded	131
Outcome 3: Resilience of AFF value chains improved	132
Outcome 4: Agricultural institutions strengthened	134
Legislative Agenda	136
Results Matrix	137
Chapter 6 Revitalize Industry	141
Assessment and Challenges	141
Strategy Framework	143
Strategies	144
Outcome 1: Domestic market production and supplier base expanded	144
Outcome 2: Moving up the value chain achieved	147
Outcome 3: Inter-sectoral linkages enhanced	154
Legislative Agenda	158
Results Matrix	158
Chapter 7 Reinvigorate Services	165
Assessment and Challenges	165
Strategy Framework	167
Strategies	168
Outcome 1: Market expansion achieved	168

Outcome 2: Creativity and innovation in services value proposition strengthened	171
Outcome 3: Inter-sectoral linkages enhanced	174
Legislative Agenda	177
Results Matrix	177
Chapter 8 Advance Research and Development, Technology, and Innovation	181
Assessment and Challenges	181
Strategy Framework	183
Strategies	184
Outcome 1: Basic R&D and knowledge creation strengthened	184
Outcome 2: Market-driven and customer-centered research and development advanced	185
Outcome 3: Technology extension, adoption, utilization, and commercialization scaled-up	187
Outcome 4: Innovation and entrepreneurship accelerated	188
Legislative Agenda	190
Results Matrix	191
Chapter 9 Promote Trade and Investments	195
Assessment and Challenges	195
Strategy Framework	198
Strategies	199
Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened	199
Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability	202
Legislative Agenda	204
Results Matrix	205
Chapter 10 Promote Competition and Improve Regulatory Efficiency	209
Assessment and Challenges	209
Strategy Framework	213
Strategies	214
Outcome 1: Anti-competitive practices diminished	214
Outcome 2: Barriers to entry and re-entry reduced	216
Outcome 3: Burden of regulation reduced	217
Cross-cutting Strategies	219
Legislative Agenda	223
Results Matrix	224

PART IV: ENABLING ENVIRONMENT	227
Chapter 11 Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance	231
Subchapter 11.1 Promote an Inclusive, Innovative, and Healthy Financial Sector	231
Assessment and Challenges	232
Strategy Framework	234
Strategies	235
Outcome 1: Financial inclusion broadened and deepened	235
Outcome 2: Financial innovation accelerated and strengthened	237
Outcome 3: Financial sector health ensured	238
Cross-cutting Strategies	239
Legislative Agenda	241
Results Matrix	242
Subchapter 11.2 Ensure Sound Fiscal Management and Improve the Tax Regime	243
Assessment and Challenges	243
Strategy Framework	244
Strategies	245
Outcome 1: A productive, equitable, and simple tax system established and other sources of revenues mobilized	245
Outcome 2: An efficient and inclusive budget system implemented	249
Outcome 3: Local government finance strengthened	250
Outcome 4: Sustainable management of debt ensured	251
Legislative Agenda	252
Results Matrix	253
Chapter 12 Expand and Upgrade Infrastructure	257
Assessment	257
Connectivity	257
Water Resources	261
Energy	262
Social Infrastructure	264
Challenges	266
Connectivity	266
Water Resources	268
Energy	270
Social Infrastructure	270

Strategy Framework	272
Strategies	273
Outcome 1: Planning, programming, and asset management in infrastructure enhanced	273
Connectivity	275
Outcome 2: Seamless and inclusive connectivity via local and international linkages achieved	275
Water Resources	279
Outcome 3: Water security, ecological integrity of water systems, and resiliency to water hazards attained	279
Energy	282
Outcome 4: Affordable, accessible, reliable, and clean energy provided	282
Social Infrastructure	286
Outcome 5: Enhanced support to social development provided	286
Legislative Agenda	289
Results Matrix	291
Chapter 13 Ensure Peace and Security and Enhance Administration of Justice	299
Subchapter 13.1 Ensure Peace and Security	299
Strategy Framework	303
Strategies	304
Outcome 1: Protection and development of conflict-affected communities sustained	304
Outcome 2: Quality of life of people safeguarded from criminality	306
Outcome 3: Protection and safety from natural hazards and other security threats ensured	307
Outcome 4: Territorial integrity and sovereignty upheld and protected	308
Cross-cutting Strategies	309
Legislative Agenda	310
Results Matrix	311
Subchapter 13.2 Enhance Administration of Justice	312
Assessment and Challenges	312
Strategy Framework	314
Strategies	315
Outcome 1: Quality and efficiency in disposition of cases improved	315
Outcome 2: Access to quality free or affordable legal services by Filipinos improved	318
Outcome 3: Quality of life of PDL improved, and productive re-integration of PDL in the community ensured	320
Legislative Agenda	322
Results Matrix	322

Chapter 14 Practice Good Governance and Improve Bureaucratic Efficiency	329
Assessment and Challenges	329
Strategy Framework	331
Strategies	332
Outcome 1: Participatory governance deepened	332
Outcome 2: Public accountability and integrity bolstered	333
Outcome 3: Government functions, systems, and mechanisms rationalized and strengthened	335
Outcome 4: Competent, motivated, agile, and resilient public servants supported	337
Legislative Agenda	338
Results Matrix	339
Chapter 15 Accelerate Climate Action and Strengthen Disaster Resilience	345
Strategy Framework	348
Strategies	349
Outcome 1: Climate and disaster risk resilience of communities and institutions increased	349
Outcome 2: Ecosystem resilience enhanced	351
Outcome 3: Low carbon economy transition enabled	353
Cross-cutting Strategy: Improve governance and intersectionality of climate change and natural hazard resilience	355
Legislative Agenda	357
Results Matrix	358
PART V: PLAN IMPLEMENTATION, MONITORING, AND EVALUATION	361
Chapter 16 Plan Implementation, Monitoring, and Evaluation	365
Implementation	365
Monitoring and Evaluation	367
Evaluation Agenda for the Philippine Development Plan 2023–2028	368
Acronyms	373
Glossary	387
PDP ORGANIZATIONAL SET-UP	413
Plan Steering Committee (PSC) Members	415
Advisory Committee Members	415
Planning Committees	416
Overall Plan Secretariat	425
Drafting Team	425
NEDA Chapter Focals	426
Editorial Team	429
Production Team	429

List of Tables, Figures, Boxes

CHAPTER 1

Figure 1.1 Strategy Framework of Philippine Development Plan 2023–2028	17
Table 1.1 Table of Headline Indicators	23

CHAPTER 2

Box 2.1. COVID-19 in the Philippines: Impacts and Health Sector Challenges	34
Figure 2.1 Strategy Framework to Boost Health	35
Table 2.1.1 Legislative Agenda to Boost Health	41
Table 2.1.2 Results Matrix: Boost Health	42
Figure 2.2 Strategy Framework to Improve Education and Lifelong Learning	46
Table 2.2.1 Legislative Agenda to Ensure Lifelong Learning Opportunities for All	53
Table 2.2.2 Results Matrix: Ensure Lifelong Learning Opportunities for All	54
Figure 2.3 Strategy Framework to Establish Livable Communities	59
Box 2.3. Affordable and Secure Housing in a Livable Community: <i>Disiplina</i> Village, Valenzuela City	66
Table 2.3.1 Legislative Agenda to Establish Livable Communities	68
Table 2.3.2 Results Matrix: Establish Livable Communities	69

CHAPTER 3

Figure 3.1 Strategy Framework to Ensure Food Security and Proper Nutrition	78
Table 3.1.1 Legislative Agenda to Ensure Food Security and Proper Nutrition	85
Table 3.1.2 Results Matrix: Ensure Food Security and Proper Nutrition	86
Table 3.2.1 Social Protection Coverage and Expenditure in Selected Countries	88
Table 3.2.2 Estimate of Social Protection Coverage among Households in the Philippines, 2017, 2019, and 2020	89
Figure 3.2.1 Households with at Least One Member Covered by Social Security System, Government Service Insurance System, Private Life Insurance, and/or Health Maintenance Organization per Income Decile (%)	90
Figure 3.2.2 Strategy Framework to Strengthen Social Protection	91
Table 3.2.3 Legislative Agenda to Strengthen Social Protection	98
Table 3.2.4 Results Matrix: Strengthening Social Protection	99

CHAPTER 4

Figure 4.1 Strategy Framework to Increase Income-earning Ability	107
Table 4.1 Legislative Agenda to Increase Income-Earning Ability	117
Table 4.2 Results Matrix: Increase the Income-Earning Ability	117

CHAPTER 5

Figure 5.1 Strategy Framework to Modernize Agriculture and Agribusiness	129
Table 5.1.1 Legislative Agenda to Modernize Agriculture and Agribusiness	136
Table 5.1.2 Results Matrix: Modernize Agriculture and Agribusiness	137

CHAPTER 6

Figure 6.1 Strategy Framework to Revitalize Industry	143
Box 6.1 Cluster-based Approach to Industrialization	156
Table 6.1 Legislative Agenda to Revitalize Industry	158
Table 6.2 Results Matrix: Revitalize Industry	158

CHAPTER 7

Figure 7.1 Strategy Framework to Reinvigorate Services	167
Table 7.1 Legislative Agenda to Reinvigorate Services	177
Table 7.2 Results Matrix: Reinvigorate Services	177

CHAPTER 8

Figure 8.1 Global Innovation Index Rank in Sub-Index Related to Knowledge Creation	182
Figure 8.2 Strategy Framework to Advance Research and Development, Technology, and Innovation	183
Box 8.1 <i>Pagtanaw</i> 2050: The Philippine Science, Technology, Innovation Foresight	185
Table 8.1 Legislative Agenda to Advance R&D, Technology, and Innovation	190
Table 8.2 Results Matrix: Advance R&D, Technology, and Innovation	191

CHAPTER 9

Figure 9.1 Philippine Export and Foreign Direct Investment Performance Relative to the Association of Southeast Asian Nations, 2000–2020 (USD billion)	195
Figure 9.2 Philippine Product Dynamics: New Entry and Permanent Exit of Export Products, 1996–2019	197
Figure 9.3 Strategy Framework to Promote Trade and Investments	198
Table 9.1 Legislative Agenda to Promote Trade and Investments	204
Table 9.2 Results Matrix: Promote Trade and Investments	205

CHAPTER 10

Figure 10.1 Strategy Framework to Promote Competition and Improve Regulatory Efficiency	213
Box 10.1 Whole-of-Government Approach to Competition	222
Table 10.1 Legislative Agenda to Promote Competition and Improve Regulatory Efficiency	223
Table 10.2 Results Matrix: Promote Competition and Improve Regulatory Efficiency	224

CHAPTER 11

Figure 11.1.1 Strategy Framework to Promote an Inclusive, Innovative, and Healthy Financial Sector	235
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Table 11.1.1 Legislative Agenda to Promote an Inclusive, Innovative, and Healthy Financial Sector	241
Table 11.1.2 Results Matrix: Promote an Inclusive, Innovative, and Healthy Financial Sector	242
Figure 11.2.1 Strategy Framework to Ensure Sound Fiscal Management and Improve the Tax Regime	245
Table 11.2.1 Legislative Agenda to Ensure Sound Fiscal Management and Improve the Tax Regime	252
Table 11.2.2 Results Matrix: Ensure Sound Fiscal Management and Improve the Tax Regime	253
CHAPTER 12	
Table 12.1 Key Economic and Energy Indicators in Select Countries	262
Figure 12.1 Strategy Framework to Expand and Upgrade Infrastructure	272
Table 12.2 Legislative Agenda to Expand and Upgrade Infrastructure	289
Table 12.3 Results Matrix: Expand and Upgrade Infrastructure	291
CHAPTER 13	
Figure 13.1.1 Strategy Framework to Ensure Peace and Security	303
Table 13.1.1 Legislative Agenda to Ensure Peace and Security	310
Table 13.1.2 Results Matrix: Ensure Peace and Security	311
Figure 13.2.1 Strategy Framework to Enhance Administration of Justice	314
Box 13.2.1 The National Justice Information System and the Criminal Justice Information Exchange	317
Table 13.2.1 Legislative Agenda to Enhance Administration of Justice	322
Table 13.2.2. Results Matrix: Enhance Administration of Justice	322
CHAPTER 14	
Figure 14.1 Philippines' Score in Selected International Governance Indices, 2011–2021	330
Figure 14.2 Strategy Framework to Practice Good Governance and Improve Bureaucratic Efficiency	331
Table 14.1 Legislative Agenda to Practice Good Governance and Improve Bureaucratic Efficiency	338
Table 14.2 Results Matrix: Practice Good Governance and Improve Bureaucratic Efficiency	339
CHAPTER 15	
Figure 15.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience	349
Table 15.1 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience	357
Table 15.2 Results Matrix to Accelerate Climate Action and Strengthen Disaster Resilience	358
CHAPTER 16	
Table 16.1 Coordination Mechanism	366
Figure 16.1 Evaluation and the Public Sector Management Cycle	369

Foreword



In my first State of the Nation Address, I tasked the National Economic and Development Authority to work with other government agencies and stakeholders in preparing the country's development blueprint for economic transformation before the year ends. I am pleased to say that this document represents the successful and timely completion of the **Philippine Development Plan (PDP) 2023 to 2028**. It is a plan framed by my administration's 8-Point Socioeconomic Agenda which seeks to address both short-term issues and medium-term constraints to growth and inclusion.

This PDP is unique as the priorities and strategies were identified and crafted during a period of economic recovery, even as we navigate our way through a highly uncertain geopolitical landscape, simmering recession in major advanced economies, rapidly changing labor market conditions brought about by digitalization and automation, and increasingly volatile weather patterns due to climate change.

Drawing from the lessons our country has learned, my administration has pursued a whole-of-government and whole-of-society approach to identifying the way forward. **The PDP provides us a comprehensive roadmap containing actionable policies and programs, as well as legislative priorities, that will enable us to reach our desired development outcomes.** The Plan calls for deep and fundamental transformations in all sectors—social, economic, institutional, and environmental—as we aim to reinvigorate job creation and accelerate poverty reduction toward a prosperous, inclusive, and resilient society.

We will reduce poverty to a single-digit level by 2028. This will be realized through rapid, sustained, and inclusive growth that will create more, better, and resilient jobs. Stable prices and prudent fiscal management, as well as an enabling regulatory and policy environment will support our economic expansion. To achieve these outcomes, I have issued an Executive Order to all government agencies and instrumentalities to align their programs and policies with the Plan. **With the PDP 2023-2028, the Philippines will build back better and more.**

Every Filipino has a part to play in our nation's journey to prosperity. The need for united and coordinated efforts of the public and private sectors, as well as civil society, has grown ever more vital as we enter into new years of post-pandemic recovery and as global headwinds threaten to derail our progress as a people.

I invite every Filipino to share in my commitment to uplift the lives of our fellow *kababayans* as we work to achieve our nation's collective vision of a *matatag, maginhawa, at panatag na buhay para sa lahat*.

Ang pangarap niyo ay pangarap ko. Ito ang ating plano.

Mabuhay ang Pilipinas! Mabuhay ang sambayanang Pilipino!



FERDINAND R. MARCOS, JR.
President
Republic of the Philippines

Preface



The context permeating the formulation of the Marcos administration's Philippine Development Plan (PDP) 2023-2028 is significantly and uniquely noteworthy. The Marcos administration assumed a socioeconomic landscape battered by the COVID-19 pandemic, external shocks, and natural calamities. While the economy was emerging, albeit slowly, from the economy's unprecedentedly sharp contraction in 2020, mobility restrictions continued, fiscal space substantially eroded, and inflation was on the rise. Meanwhile, heightened uncertainty and volatility eclipsed the global economy as geopolitical tensions continued and sharp slowdowns in major economies loomed. These challenges shaped the PDP's objectives: addressing inflation and sustaining recovery amid the external headwinds and returning the economy to its high-growth trajectory toward advancing the country's progress in achieving the *AmBisyon Natin 2040* vision of a *matatag, maginhawa, at panatag na buhay* for all Filipinos.

Back in 2015 under the Aquino administration, the National Economic and Development Authority (NEDA) led the exercise of formulating the long-term vision through extensive public consultations, national household surveys, and technical studies on various thematic areas widely known to be critical factors influencing a country's economic development. The aim was to find enabling and empowering anchors to successive medium-term development plans to help ensure the continuity of efforts toward the attainment of Filipinos' aspirations to live firmly rooted, secure, and comfortable

lives within a single generation. In 2016, the Duterte administration, through Executive Order 5 (s. 2016), adopted the *AmBisyon Natin 2040* as the country's guide for development planning, anchoring its PDP 2017-2022 on this national vision.

The Marcos administration's PDP 2023-2028 seeks to build on the significant gains the country has achieved in the past two decades, mindful of some setbacks caused by the pandemic. Its overarching goals are to reinvigorate job creation and accelerate poverty reduction by transforming the economy and public service. The formulation of its strategies and priorities to achieve these goals has taken lessons from the first two years of the pandemic, ideas distilled from development research and policy studies, and invaluable insights gleaned from the country's economic history.

What sets this PDP apart is its focus on economic and social transformation (Chapter 1). Framed by President Ferdinand 'Bongbong' Marcos' 8-Point Socioeconomic Agenda, the chapters of this Plan are organized with the underlying logic that dynamic and robust institutions and a resilient environment shall enable the social and production sectors to provide the services, goods, and high-quality jobs that transform the quality of life of the Filipino people.

The Plan seeks to develop and protect the capabilities of individuals and families by promoting their human and social development (Chapter 2), reducing their vulnerabilities and safeguarding their purchasing power (Chapter 3), as well as

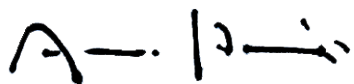
increasing their income-earning abilities (Chapter 4). The Plan shall strengthen the economic sectors, which are seen to create more and higher-quality jobs and produce globally competitive products. The PDP identifies the policies, programs, and legislative priorities required to modernize the agricultural sector (Chapter 5), revitalize industries (Chapter 6), and reinvigorate services (Chapter 7).

The government's role is critical as it must foster an enabling environment for social and economic transformation. The PDP identifies strategies for advancing research and development, technology, and innovation (Chapter 8), promoting trade and investments (Chapter 9), enhancing competition and improving regulatory efficiency (Chapter 10), ensuring macroeconomic stability (Chapter 11), expanding and upgrading critical infrastructure (Chapter 12), ensuring peace and security and enhancing the administration of justice (Chapter 13), practicing good governance and improving bureaucratic efficiency (Chapter 14), and accelerating climate adaptation and strengthening disaster resilience (Chapter 15).

Interspersed between the chapters are cross-cutting strategies which include expediting digitalization, enabling the servicification of our industries, supporting the creation of dynamic innovation ecosystems, enhancing and investing in digital and physical connectivity, fostering greater collaboration between local and national governments, and facilitating stronger partnerships with the private sector.

Finally, the Plan identifies the metrics and mechanisms for monitoring and evaluating the progress in the Plan's implementation (Chapter 16). Identified outcomes will be monitored and assessed using indicators and interim targets as identified in the accompanying Results Matrix (RM)—an instrument designed to provide results orientation to the Plan. As part of our whole-of-government and whole-of-society approach, the Plan is complemented by a set of Regional Development Plans, the Public Investment Program (PIP) for 2023-2028, and the Three-year Rolling Infrastructure Plan (TRIP) for FY 2024-2026. These will help ensure regional equity and that we have the right investments and programs in place at the right time.

The PDP 2023-2028 signifies the Marcos administration's strong commitment to steer our economy through these uncertain and challenging times. Although the journey ahead may indeed be long and painstaking, and disruptions and challenges will certainly be inevitable, what remains crucial is our steady and tireless march toward reaching ever-higher development goals as our nation makes progress in attaining its long-term vision.



ARSENIO M. BALISACAN

Secretary

National Economic and Development Authority

Acknowledgement

The PDP 2023-2028 results from systematic and extensive consultations and collaboration with various government agencies, the private sector, academe, and development partners. We are grateful to the distinguished members of the PDP Advisory Committee—Sabin Aboitiz, George Barcelon, Kenneth Cobonpue, Dakila Cua, Emil Javier, Jikyeong Kang, and Christopher Monterola—for providing high-level policy advice and multi-sectoral insights.

Special thanks are due to the World Bank, particularly Country Director Ndiame Diop, who offered evidenced-based policy notes on many thematic areas, and the Asian Development Bank, notably Country Director Kelly Bird, as well as the USAID, which mobilized experts and consultants to assist the NEDA team in drafting the Plan chapters.

We are grateful to the following who generously shared their time and expertise to ensure that the best versions of the assessments, strategies, and indicators contained in the Plan were completed in time: Clarissa David, Ronald Mendoza,

Jose Gerardo Alampay, Fernando Aldaba, Annette Balaoing-Pelkmans, Alex Brillantes, Jr., Gem Castillo, Lawrence Dacuycuy, Mcgyver Doria, Milwida Guevara, Susan Rachel Jose, Napoleon Juanillo, Jr., Miharu Jay Kimwell, Czarina Corazon Medina-Guce, Gabrielle Ann Mendoza, Felino Palafox, Jr., Francis Mark Quimba, Eufemio Rasco, Jr., Majah-Leah Ravago, Maria Cherry Lyn Rodolfo, Jennifer Santiago-Oreta, Guillermo Tabios III, Marites Tiongco, and Edgar Richard Trono. The PDP also drew from the insights and helpful suggestions provided by the UN family of agencies based in Manila.

Of course, the timely production and publication of the PDP would not have been possible without the selfless efforts of the NEDA Policy and Planning Group led by Undersecretary Rosemarie Edillon and the NEDA Development Information Staff led by Director Nerrisa Esguerra. We are also thankful to Undersecretary Carlos Bernardo Abad Santos, Undersecretary Joseph Capuno, Assistant Secretary Sarah Lynne Daway-Ducanes, and Supervising Officer Reynaldo Cancio, who served as members of the Editorial Team.

PART I

Introduction

01

A Plan for Economic and Social Transformation



A Plan for Economic and Social Transformation

“By 2040, the Philippines shall be a prosperous, predominantly middle-class society where no one is poor. Our peoples will enjoy long and healthy lives, are smart and innovative, and will live in a high-trust society.”

AmBisyon Natin 2040

Filipinos aspire to have a life that is strongly rooted, comfortable, and secure (matatag, maginhawa, at panatag). Since the articulation of this vision in 2015, there have been improvements in key indicators, notably in the reduction of poverty incidence and increase in per capita income. However, the coronavirus disease (COVID-19) pandemic has rolled back some of these gains and revealed the fragility of these achievements. Even as the country is still in the early recovery stage from the pandemic-induced economic and social losses, and as we continue to learn to “live with the virus,” we are acutely aware that the challenges ahead have evolved and multiplied. This means that changes will have to be made to the way we do things—to how economic and social interactions and transactions are done, how public services are delivered, how rules and regulations are enforced, and so on—the so-called “new normal.” While some advantaged individuals and businesses have begun the transition to the “new normal,” many more have not. Thus, what we need is a coherent **Plan for Economic and Social Transformation** (henceforth, the Plan) that accelerates economic and social recovery toward inclusive and resilient prosperity.

The Plan will fully consider the lessons learned from the pandemic...

As we formulate the Plan for Economic and Social Transformation, we need to take stock of the lessons learned from our pandemic experience.

First, maintaining robust macroeconomic fundamentals, which fosters consumer and investor confidence, is key to achieving rapid economic recovery and preventing socioeconomic scarring. The Plan must therefore include strategies that would ensure macroeconomic stability and sound fiscal management to keep consumer and investor confidence in the economy high.

Second, we learned that everything and everyone are interconnected, and that there are advantages to having strong interlinkages. This extends to the interdependence between the health of the economy and the state of its healthcare system. The Plan, therefore, must include strategies to strengthen these interlinkages and make them robust.

Third, there are limits to government resources and capabilities; hence, government needs to engage meaningfully with various sectors to deliver the needed interventions. The Plan, therefore, must include strategies to

enhance collaboration with local government units and partnerships with the private sector and civil society.

Fourth, though recovery has started, we need to fast-track investments in early warning

systems, efficient social protection programs, effective resilience-building strategies, research and development, technology—particularly digital technology—and innovation.

...while addressing the scarring due to COVID-19.

In 2020, COVID-19 was declared a global pandemic and the country went into one of the world's longest and strictest lockdowns beginning March of that year. For more than a year, most of the country was under some form of mobility restriction: people were not allowed outside their homes; offices and businesses closed down; public transportation was limited; and schools shifted to remote learning. In the second quarter (Q2) of 2020, the economy saw its deepest contraction at -16.9 percent. The unemployment rate jumped to 17.6 percent in April 2020, and underemployment hit a high of 21 percent in mid-2021. Positive growth was not seen until Q2 2021, rebounding to 12.1 percent and nearly 7 to 8 percent in succeeding quarters, while the labor situation steadily improved over time.

In response to the immediate need for relief, *Bayanihan* 1 (Republic Act 11469) and *Bayanihan* 2 (RA 11494) were enacted, and the national government initially rolled out support to 80 percent of Filipino families nationwide through cash transfers that were good for two months. These were later dialed down, both in terms of the amount and portions of the population assisted, in the latter part of the pandemic. In addition, various forms of support were included in the *Bayanihan* Acts, including support to employees, and to micro, small, and medium enterprises (MSME).

The lockdowns led to large financing needs to support families and businesses. Coupled with low revenue collection due to business closures, these resulted in a record-high PHP1.67 trillion budget deficit and higher levels of borrowing with debt-to-gross domestic product (GDP) ratio climbing to 60.4 percent by the end of 2021 from only 39.6 percent in end-2019. Government expenditures increased due to direct cash transfers and COVID-19 response-related costs such as: procurement of COVID-19 test kits and personal protective equipment (PPE); hiring of more health personnel; and purchase and nationwide deployment of COVID-19 vaccines.

Aside from the economic contraction, the pandemic also resulted in significant social sector losses, which may be harder to recoup. These include learning losses, low levels of routine vaccinations,¹ and the slowdown of healthcare-seeking behaviors in the population, among others. For two academic years, learners from preschool to tertiary levels coped as best they could through remote and blended learning modes instead of face-to-face classes. Worse, an estimated five percent of primary school-aged children in the Philippines did not enroll in 2022 while 91 percent may not be able to read or understand short and age-appropriated text by age 10.² The full impact of this erosion in human development will not be apparent until years later, and, if left unaddressed, will

lead to poor education and health outcomes for a generation of children. Rebuilding and catching up will require strong prioritization of education and health to prevent a more lasting negative impact on human development.

Both the economic and social impacts of the pandemic disproportionately affected the poorest and most vulnerable: many lost their incomes, and children who did not have the means to learn with digital devices experienced learning losses. They were also more likely to receive COVID-19 vaccines

later, especially those in poor rural areas and hard-to-reach communities, such as the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The latest poverty estimates show that the country's gains in poverty reduction from 2015 to 2018 were partially reversed as the poverty incidence in 2021 increased to 18.1 percent, up from 16.7 percent in 2019, but remained lower than the 23.5 percent poverty incidence in 2015, largely due to the government cash transfers targeted to low-income households.

The Plan will build on “tried and tested” strategies...

The significant reduction in poverty incidence observed between 2015 and 2018, from 23.5 to 16.7 percent, was a result of fast economic growth that was sustained over six years; increased human capital investments; and the expansion of the *Pantawid Pamilyang Pilipino* Program (4Ps) beginning 2013, with its enhancement beginning 2016.

Gross domestic product grew by an average of 6.6 percentage points over the period 2012–2019. This was the by-product of an agenda of good governance, level playing field, and ease of doing business. The agenda was later institutionalized either through legislation or executive order.

Government spending on infrastructure increased, averaging 2.6 percent of GDP from 2013 to 2016, to 4.6 percent of GDP from 2017 to 2019. Many of the infrastructure projects, including those under the Build, Build, Build program of the administration of former President Rodrigo Roa Duterte favored regions outside the National Capital Region.

Government spending on education and health increased by an average of 14 and 13 percent, respectively, over the period 2013–2019. The program for basic education was revised with new content and an additional two years. Tertiary education in state universities and colleges was later provided for free. Scholarship programs were also expanded, including in technical and vocational education and training (TVET) institutions. Health care provision was enhanced with the implementation of the Health Facilities Enhancement Program. Health care financing was later expanded through the establishment of *Malasakit* Centers.

Coverage of the 4Ps increased from 630,000 households in 2009, to 3 million in 2012, then 4.4 million households in 2016. The amount of cash transfers also increased in 2016, mainly to maintain the real value of the transfers as provided in 2012.

Fiscal health was improved through aggressive tax reforms, which were intended to make the tax system simpler and fairer.

The Tax Reform for Acceleration and Inclusion (TRAIN) reduced personal income tax rates but also broadened the tax base. TRAIN resulted in additional net revenues because of the increase in excise taxes on

petroleum products, the new excise tax on sweetened beverages, and the repeal of over 50 provisions on value-added tax exemptions and zero-rating.

...and will take on “unfinished business”...

Several long overdue reforms have also been passed. The Rice Tariffication Law (RTL), which was stalled for about 30 years, was enacted in February 2019 to alleviate the 2018 rice supply crisis and modernize the agricultural sector. While rice yield has increased from 3.9 to 4.1 metric tons per hectare pre- and post-RTL implementation, respectively, the rice industry road map is yet to be finalized.

Amendments to the Foreign Investment Act (FIA), Retail Trade Liberalization Act (RTLTA), and the Public Service Act (PSA) were also enacted into law, intended to further ease restrictions on foreign investments, especially in strategic industries. Also enacted during the pandemic was the Corporate Recovery and Tax Incentives for Enterprises Act (CREATE), which lowers the corporate income tax rate and provides incentives to strategic industries irrespective of ownership. However, because the effectivity of these laws coincided with the global economic slowdown due to

COVID-19-induced losses, we have yet to see the full impact of the more open investment climate promoted by these liberalization laws.

Many social sector reforms, while critically important, are not yet fully implemented. The government has already taken initial steps toward digitalization and financial inclusion through the Philippine Identification System or PhilSys Act (RA 11055). However, PhilSys processes need to be expedited. As of December 31, 2022, Step 2 cumulative registration to PhilSys has reached 75.7 million individuals, which is 82.3 percent of the target 92 million individuals for 2022. More than 55 million PhilSys numbers have been generated, 23.7 million ePhilID cards printed, and 21.4 million PhilID cards delivered.³ Another crucial reform, the Universal Health Care Act (RA 11223), which registers all Filipino citizens to a national health insurance program, is still in the process of developing a progressive health care system within the next six years.

...while taking full cognizance of emerging global and regional trends.

The unprecedented health crisis changed the status quo of health care, economic management, and technology, among others, across the globe. This section evaluates

emerging patterns that may pose risks as well as opportunities to the country's development in the upcoming years.

Health and Social Trends

Continued impact of COVID-19

The pandemic has been a traumatic experience to many, particularly as it evolved from a purely health crisis to a multidimensional one, revealing an interconnected set of problems. While mortality and hospitalization figures began to decline globally due largely to vaccination, new strains have emerged and

crossed borders. In fact, the characterization of the “new normal” is still unclear; it varies widely from going back to the “old normal,” to imposing minimum or strict public health standards particularly in the 3Cs (crowded events, closed spaces, and close-contact activities).

China’s dynamic Zero-COVID policy

Some countries continue to uphold stringent mobility restrictions that may generate both local and international implications, such as in tourism. For instance, China has been implementing its “dynamic zero” COVID policy that includes imposing unpredictable lockdowns to curb COVID risks, which in turn dampened both domestic and

international travel for Chinese tourists. The latter proved critical as tourism in Southeast Asia and East Asia is highly dependent on the Chinese market of tourists. Outbound tourists from China were the world’s biggest spenders in 2019, comprising 20 percent of global tourism spending.⁴

Aging global population

Notwithstanding the pandemic, the global trend is geared toward longer life expectancies and generally healthier populations, combined with lower fertility (50% decline in the past 70 years alone),⁵ which are among the factors that contribute to global ageing. The World Health Organization (WHO) forecasts that in 2030, one in six people worldwide will be 60 years old or over—an increase in total from one billion aged 60 and over

in 2020 to about 1.4 billion in 2030.⁶ This is expected to further rise and reach a total of 2.1 billion aged 60 and over in 2050. Much of this global ageing has been driven by many industrial countries, but increasingly in the next three decades, many developing countries, including the Philippines,⁷ will follow this trend. Up to two-thirds of the world’s population aged 60 years and over will be accounted for by low- and middle-income countries in 2050.

Increasing demand for health care workers

Recognizing the critical importance of health care workers (HCW) in the fight against COVID-19, the government imposed

a temporary ban on the deployment of health workers in April 2020.⁸ This has since been relaxed from implementing a

total deployment ban to instituting a cap on deployment of 7,500 HCW per year.⁹ Demand for HCW has been amplified by the pandemic, especially in advanced economies with aging populations. This translates into a huge wage differential. For instance, the base salary for nurses in the Philippines ranges from an average of PHP17,000 in private hospitals to around PHP35,000 in

government hospitals; while it could rise to as much as PHP275,000 in the United States (US). The wage offer in advanced economies is expected to increase with the growing demand for health care, making it more attractive for Filipino health workers to go abroad. This may adversely affect access to, and quality of health care in the country.

Economic Trends

Headwinds in global economic recovery

After more than two years of the pandemic, the world economy is still struggling to get back on track. The International Monetary Fund (IMF) forecast global growth in 2022 at 3.2 percent, a significant decline from the 6 percent rebound posted in 2021. Global growth is expected to fall further to 2.7 percent in 2023, with a 25 percent probability that it could fall under 2 percent. The three largest economies in the world—the US, European Union, and China—are all expected to struggle with their immediate post-pandemic economic growth recovery. In addition, almost half of more than 70 economies monitored by the IMF are expected to face a technical recession, measured as at least two consecutive quarters of economic contraction, in the upcoming year.¹⁰ This uneven recovery, shaped by the various factors discussed in this chapter, affects major commodity supplies. International supply chains, still recovering from the pandemic, are also less predictable given the uncertainty of the international economic environment.¹¹

Many industrial and developing countries accumulated debt to finance countercyclical fiscal and social protection responses to COVID-19. Total global debt rose by 30 percentage points of world GDP in 2020 alone; the largest single-year increase in world debt since the 1970s. In the same year, the total debt breached 200 percent of GDP in emerging markets, while total debt topped 300 percent of GDP in industrial countries.¹² The surge in sovereign debt spreads and monetary policy tightening among in countries to temper inflationary expectations have since created pressure on borrowing costs for many emerging market economies and developing countries. The strength of the US dollar, driven in part by the Federal Reserve's monetary tightening as well as the "flight to safety" during volatile times, is likely to create additional pressure on both domestic inflation (due to exchange rate pass-through) and on borrowing costs for many countries.

Geopolitical Trends

Ongoing international tensions

By early 2022, geopolitical, environmental, and food security risks began to conflate the pandemic-related challenges, further hindering inclusive recovery. The intensification of the Russia–Ukraine conflict on February 24, 2022, created ripple effects that affected an already weakened global economy. Both Russia and Ukraine are important international suppliers of food and other key commodities, such as wheat and sunflower oil. Russia is also the third largest oil producer in the world and accounts for ten percent of total global oil production. The resulting oil price increases have created knock-on effects on transportation costs and goods trade.¹³

There are also other potential dangers from geopolitical tensions in Asia. These include: recent tensions in the Korean peninsula;

conflict between China and Taiwan; and lingering disputes in the South China Sea. An escalation of the conflicts in the South China Sea would be devastating to the global economy as the area accounts for 12 percent of the world's fish catch, and more than 30 percent of all global maritime trade passes through it. About 40 percent of the world's liquefied natural gas shipments also traverse the South China Sea, which also contains deposits of about 11 billion barrels of oil and 190 trillion cubic feet of natural gas.¹⁴ Any potential maritime conflict poses a huge threat, as the world's coastal regions contribute about USD1.5 trillion to the global economy each year—a number expected to double by 2030 to USD3 trillion based on estimates by the World Trade Organization (WTO).¹⁵

Shifts in Asian investments and manufacturing

Many foreign investors are recalibrating their investment portfolios in China, often with a view to relocate to Southeast Asia.¹⁶ These shifts are not new as the relocation of some foreign investments from both Japan and China even preceded the COVID-19 pandemic.¹⁷ Pre-existing factors shaping global value chains (GVC) in Asia include the intensifying trade conflicts among major trading partners since 2018; increased automation that triggered the return of some production to industrial countries; and increased costs of production in China.¹⁸ Most recently, geopolitical tensions between China and some western economies, and China's stringent anti-COVID-19 policies are likely accelerating this shift and,

consequently, reshaping the investment and trade landscape underpinning vibrant GVCs in the Asian region.

In October 2022, the US imposed sweeping restrictions on technology exports to China, such as computing chips, supercomputers, and advanced semiconductors.¹⁹ Several Southeast Asian countries have started to ramp up incentives for new companies in anticipation of foreign manufacturing firms leaving China. For instance, the Philippines provided investment incentives that attracted at least nine multinational enterprises to relocate their respective manufacturing facilities from China since 2019.²⁰

Environmental Trends

There has been a dramatic shift in the world's weather patterns and temperature records are now routinely being set every three years since 1981.²¹ According to the World Meteorological Organization, economic losses from weather-related disasters increased sevenfold from the 1970s to the 2010s. All these trends are interconnected with more frequent and more intense weather events such as hurricanes, wildfires, and heat waves taking place around the world.

International collective action to respond to climate change will be tested by the challenging global economic recovery conditions in the medium term. In the 2021 Glasgow Climate Pact during the 26th United Nations Climate Change Conference, more commonly referred to as COP26,²² almost 200 countries committed to make the 2020s a decade of climate action and support. Industrial countries have pledged USD100 billion annually for developing countries, with the goal of reducing emissions and capping the global average temperature rise

to 1.5 degrees.²³ In an unprecedented move, during the COP27 held in November 2022 in Egypt, several European countries agreed to establish a loss and damage fund, which extends financial assistance for rescue and reconstruction in developing countries as a result of extreme natural disasters brought by climate change.²⁴

In the present post-pandemic and economic environment, governments will be hard-pressed to deliver on climate change commitments on their own. There needs to be greater synergy in central and local government policy and regulatory frameworks, supported by research and development (R&D), to fulfill these commitments. A scenario where trade and investment flows will favor those between and among economies strongly committed to accelerated climate action is highly likely. This will then induce the private sector to put in more resources and even to lead parts of the overall response.

Technology and Regulations

Rapid digitalization across the globe

Many development opportunities have also emerged in recent years, even during the pandemic aftermath. For instance, in part due to the successful adaptation strategies during the pandemic, various countries were able to tap their domestic industries for innovation and repurposing to help in the whole-of-nation effort to respond to the pandemic. COVID-19 has also served as a catalyst for fueling a wave of digitalization in

government and in the private sector. In the public sector, this enabled service continuity; while in the business sector, business continuity meant having to switch from relying on foot traffic to online traffic.²⁵

Technology and intellectual property are among the key areas increasingly featured in international trade and investment discussions. Due to the nature of technology-driven industries and sectors,

these discussions are inevitably intertwined with issues on network externalities, competition policy, intellectual property, and even national security.²⁶

For example, the Regional Comprehensive Economic Partnership Agreement (RCEP)—which has been signed by almost all ASEAN countries plus Australia, China, Japan, Republic of Korea, and New Zealand—supports information and communications technology (ICT)-enabled trade facilitation measures, promotes free cross-border flow of data, and accommodates less stringent approaches to data localization. Leveraging cross-border data transfers has been lauded as a way to: grow the global economy; connect

people to economic opportunities; reduce export and transaction costs significantly; and aid in building international consensus through regional negotiations.²⁷ The RCEP also includes commitments to bolster e-commerce by protecting online consumers and their personal information and strengthening regulatory frameworks, notably in areas of transparency and cybersecurity.²⁸ Countries, including the Philippines, will need to navigate these international trade and investment agreements to maintain robust connections to evolving global value chains, which will be largely shaped by advances in technology and emerging standards and regulations.

Global megatrends for 2030

Even prior to the pandemic, various groups pointed to global megatrends that could shape the decade in fundamental ways. In its Global Connectivity Outlook report, the World Bank noted several main messages for policymakers and planners.²⁹ Disruptive technologies do not just promise improvements in connectivity, but also innovation in how connectivity is formed and used. Long-term planning of infrastructure and resource allocations must not assume a continuation of past trends but constantly adapt to the evolving digital and technological landscape of the Fourth Industrial Revolution or Industry 4.0. Changing consumption patterns, as a result of the rising urban middle class population in Asia, can result in the flow of infrastructure investments to the region. Meanwhile, investments in digital capacity through the Internet of Things (IoT), artificial intelligence, mobile internet, and Big Data analytics are encouraged. Disruptive technologies from

these investments offer opportunities for transformation in various sectors.

Electric vehicles can shift demand from fuel to batteries, while autonomous vehicles have the potential to improve road competitiveness and transport logistics. With renewable energy becoming increasingly attractive and attainable, energy-related shipping for coal and oil are also estimated to decrease by 50 and 25 percentage points, respectively. As a result, there may be limited demand for new investments for coal or oil transport infrastructure in the next few years. Finally, the effects of additive manufacturing remain uncertain. Freight volume may depend on the difference in price sensitivity for these types of products. Lower- and middle-income groups that may be more conscious of prices can lead to growing flows in freight; whereas a decline can be expected among upper-income countries willing to spend on these products.

More broadly, the available analyses of global megatrends point to the role of technology and its disruptive effects, and the opportunities for enhancing economic development and well-being of millions. The Fourth Industrial Revolution is

expected to be underpinned by connectivity, digitalization, automation, IoT, and big data, among others. Technological surveillance, R&D, and learning-by-doing will be critically important activities to inform policymaking and business strategy.³⁰

Overview of the Philippine Development Plan 2023-2028

The Philippine Development Plan (PDP) 2023–2028 is a plan for deep economic and social transformation to reinvigorate job creation and accelerate poverty reduction by steering the economy back on a high-growth path. This growth must be inclusive, building an environment that provides equal opportunities to all Filipinos, and equipping them with skills to participate fully in an innovative and globally competitive economy.

The PDP 2023–2028 is based on President Ferdinand R. Marcos Jr.'s 8-point socioeconomic agenda that tackles immediate, on-the-ground concerns—high inflation, scarring due to COVID-19 and the tight fiscal space; address long-standing, critical constraints to generating more jobs, quality jobs, and green jobs over the medium term; and provide the necessary enabling environment—level playing field, and peace and security.

The underlying theme of PDP 2023–2028 is transformation...

Taking off from the lessons learned especially during the pandemic, the PDP 2023–2028 takes on the underlying theme of transforming the economic and social sectors and institutions for a prosperous, inclusive, and resilient society. The transformation agenda is broken down into:

Digitalization. Digital transformation of government will result in more efficient and faster service delivery to the people, more transparency, and fewer opportunities for corruption at various levels. Digitalization can also help the government build

better data systems that will create better programs, such as more targeted social protection enabled by the national ID through PhilSys; and better link job seekers to employment opportunities through the expansion of the automated job and applicant matching system, PhilJobNet, created by the Department of Labor and Employment (DOLE). Compliance with regulations may also increase with digital filing and digital payment systems.

The COVID-19 pandemic has forced a wave of digital adoption across the country. An

important development is that as more institutions and businesses digitalized, the proportion of consumers that entered the digital marketplace has also expanded rapidly. The rapid and massive migration of people into the digital space is an opportunity to push toward fully digitalizing sectors that have not been able to pivot their processes to maximize the potential efficiency brought about by digitalization.

Servicification. Servicification fosters inter-sectoral linkages to create synergies for more value-adding opportunities, expansion of products and markets, and more efficient delivery network. The Philippines has had a strong competitive advantage in services, which has accounted for a large proportion of GDP and employment both domestically and internationally, albeit in lower productivity jobs. Where the country has been unable to compete successfully is in expanding manufacturing, which, for many other countries, has been the driver of job generation. The evolution of these sectors has blurred the line between manufacturing and service jobs, as manufacturing now requires more service-related labor, which has become more mobile and transmittable via digital means.³¹

Servicification as a strategy means pursuing policies that will build ecosystems around economic clusters identified as potential sources of high growth, to attract more investments and expand its demand for higher productivity jobs. Priority servicification can also be targeted toward the industries of ICT, creatives, tourism, and logistics to move up the global value chain.

Dynamic Innovation Ecosystem. Innovation will translate knowledge and ideas into new products, and/or new and better

processes. This requires an ecosystem involving knowledge and R&D institutions, product and process design, marketing, and entrepreneurs. Government will support the creation of innovation ecosystems and their evolution to becoming a dynamic ecosystem that eventually generates not only more, but quality jobs.

Enhanced Connectivity. As an archipelago, the Philippines has unique challenges with connectivity. Digital connectivity is only one form, as physical connectivity through infrastructure and transport is similarly important to link markets to each other; connect urban centers to rural areas; and facilitate the movement of people whether for employment, business and marketing transactions, or even socialization and recreation. Communities should be linked to these opportunities through the development of local road networks that reduce the costs of transport, while also adopting active mobility options and e-vehicles.

In addition to investing in connectivity domestically, there are also opportunities to ramp up the connectivity of the country to the rest of the world. Increasing the capacity of airports can revitalize tourism; upgrading ports and improving maritime safety can facilitate the movement of goods, thereby promoting trade and making the country more attractive to investments.

Greater collaboration between local and national government. The PDP seeks to bring local governments in as equal partners in the development agenda of the country. As frontline service providers, LGU performance can spell the difference between regional development and regional stagnation.

One of the major developments in the governance landscape of the Philippines is the *Mandanas-Garcia* ruling of the Supreme Court in 2018. The ruling meant that the internal revenue allotments (IRA) of local governments would increase by about 23 percent in keeping with the spirit of the Local Government Code of 1991.³² This led to a “re-devolution” of programs and functions to local government units (LGU) as national agencies faced smaller budget allocation.

Operationalizing the *Mandanas-Garcia* ruling is an opportunity to optimize the sharing of responsibility between local and national government. Over the medium term, there will be close coordination through capacity-building programs and mentoring for LGUs, especially in areas where national government support will be needed. These include important human development investments, notably in health, social welfare, disaster resilience, and local infrastructure. Thus, the completion of Devolution Transition Plans (DTP) will be fast-tracked and operationalized to improve each LGU’s

capacity for delivering public services and raising local revenues.

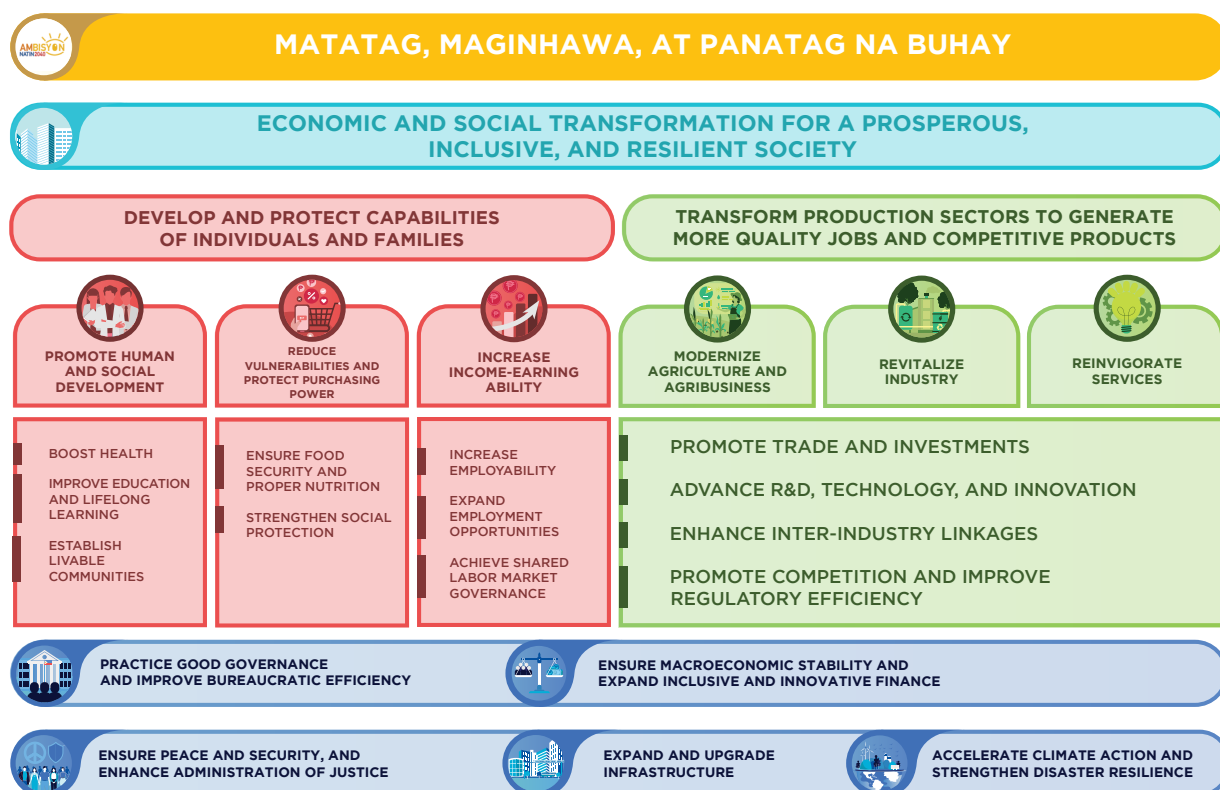
Partnership with the private sector. There are multiple areas to expand the role of the private sector to deliver more benefits to the public. The government’s role is to provide calibrated incentives to priority industries and foster an enabling business environment to allow job-generating businesses and industries to grow. Reconfiguring public-private partnerships (PPP) can also help in addressing cross-cutting issues of a weak competition environment and the digital divide, as well as boost the country’s campaign to attract foreign investments. The tight fiscal space that will constrain public investments for the next few years provides a rationale for favoring PPPs in enhancing and upgrading infrastructure. Larger private sector participation in areas such as housing, transport, digital, and other related large infrastructure can free up public funds for investments in human capital to address, for instance, the scarring from the pandemic in health care and education.

...that is integral in all the strategies of the PDP.

The overarching goal of the PDP 2023–2028 is to achieve economic and social transformation for a prosperous, inclusive, and resilient society. The strategies are organized corresponding to the following objectives: (a) develop and protect capabilities of individuals and families; (b) transform production sectors to generate more quality jobs and produce competitive products;

and (c) foster an enabling environment encompassing institutions, physical and natural environment, which promotes a prosperous, inclusive and resilient society.

Figure 1.1 Strategy Framework of Philippine Development Plan 2023–2028



Capabilities of individuals and families will be developed to enable them to participate in growth opportunities (Chapter 2).

- **Good health will be promoted (Subchapter 2.1).** Health care strategies will be comprehensive and will focus on building an ecosystem in communities for health care providers, and an environment where individuals can make healthy choices (e.g., nutritious affordable food and health literacy).

- **Opportunities for transformative lifelong learning will be expanded (Subchapter 2.2).** The quality of education at all levels will be improved by expanding access to quality learning resources, enhancing the curriculum, and improving the competencies of teachers. The evaluation protocol for learning outcomes will also be improved by involving third-party

institutions to assess students’ proficiency across all levels. TVET programs will be improved to make them more responsive to industry needs. Higher-education institutions will be strengthened to perform a greater role in knowledge co-creation, and serve as innovation hubs and incubation centers.

- **Livable communities established for human and social development (Subchapter 2.3).** Communities and human settlements will be planned and upgraded in a way that offers equitable, inclusive, and resilient opportunities for improving human well-being while contributing to the economic vitality of the community. This will be pursued through the promotion of social environment, improvement of environmental quality, and upgrading of the built environment. All of which will be supported

by a governance system that is accessible and ensures sustainability of livable communities.

Social protection (SP) systems will be made more efficient with improved targeting and digitalized processes for faster response to the needs of the most vulnerable (Chapter 3).

- Amidst the possibility of accelerated inflation owing to natural and external shocks, the priority is to ensure food security and proper nutrition, especially among the most vulnerable (*Subchapter 3.1*). A sufficient and stable supply of food will be ensured, primarily through improved productivity of agri-food systems, including storage, transport, and logistics. Measures to prevent and address wasting, stunting, and obesity will be implemented through supplementary feeding, nutrition education, and nutrition promotion campaigns.

- Social protection systems will be strengthened (*Subchapter 3.2*). SP programs will be enhanced to reduce the risks faced by Filipinos, and mitigate the impact of shocks. Critical to this is the establishment of a universal, modern, and integrated SP system to improve targeting, rationalize interventions, and facilitate the timely delivery of SP services.

Jobseekers and those currently working will have more opportunities to improve their income-earning ability (Chapter 4).

- Contents of training modules and curricula for human capital development will be continuously updated to match the needs of emerging in-demand occupations. The updating will also cover professional standards and licensure examinations.

- Employment facilitation services will be enhanced to include career development support, and an active labor market information system.

- Everyone will have access to opportunities to increase their income-earning abilities by the effective enforcement of anti-discrimination laws. Migrant workers will also have access to these opportunities to facilitate their reintegration back into the domestic economy.

The production sectors will be transformed to provide high-quality, high-skill, and stable employment opportunities for the fast-growing Filipino workforce.

The strategies in each sector are categorized into three major groups: (a) expand markets, (b) promote value-adding, and (c) foster inter-sectoral linkages.

Agriculture and agribusiness will be modernized (Chapter 5). Primarily, production efficiency will be improved through farm clustering or consolidation, adoption of improved technology, and access to inputs. More innovation hubs and farm demonstration sites will be established and the Province-led Agriculture and Fisheries Extension System will be strengthened. The blue economy will be developed with the full implementation of the Fisheries Management Act plans, and the upgrading of Technology Outreach Stations, and National Technology Centers, among others. Opportunities for greater value-adding will be created by expanding business partnerships between primary producers and other entrepreneurs, and by strengthening the capacity of primary producers to process raw materials, understand markets, and ensure that food safety and quality standards are met.

Government will rationalize investments in the sector to promote the interconnectedness of multimodal transport and logistics, particularly for perishable products. Use of mobile platforms and channels will be encouraged for marketing, payment, and product delivery. Institutional capacity to formulate plans, conduct R&D, provide extension services, and undertake monitoring and regulation will be enhanced with the use of modern technology and better information systems.

Industry will be revitalized (Chapter 6).

Domestic production and supplier base will be expanded, particularly corresponding to the value chains of the following industry clusters: (a) industrial, manufacturing, and transport (IMT); (b) technology, media, and telecommunication (TMT); (c) health and life sciences (HLS); and (d) modern basic needs (MBN). This entails enhancing business-matching activities and intensifying support through the provision of common service facilities, marketing assistance and even time-bound performance-based incentives. Servicification will be promoted, including the adoption of Industry 4.0, IoT, etc. This will be done through co-locating industry and service enterprises, and including academic institutions, and providing more platforms for collaboration.

Services sector will be reinvigorated (Chapter 7).

Demand for services will be expanded by actively promoting the country's tourism, culture, creative sector, and Information Technology-Business Process Management (IT-BPM). Adoption of holiday economics will also be undertaken to boost domestic tourism, promote local products, and encourage inter-cultural exchanges. Streamlining regulations to allow 24/7 operations of transport and logistics

operations will also increase demand. Value-adding to diversify “product” offering and improve “consumption” experience will be encouraged by instituting accreditation protocols; improving access to physical and digital infrastructure; and developing technology parks, centers of creative excellence and innovation, creative talent hubs, and improved shared service facilities for MSMEs. Finally, capacities of institutions providing business advisory services, and of communities and LGUs hosting the investments and events will be continuously upgraded.

Establishing a dynamic innovation ecosystem is at the heart of the transformation agenda of the PDP 2023-2028 (Chapter 8).

The innovation ecosystem involves interlinkages between and among social scientists, basic R&D institutions, product engineers, design and marketing specialists, and entrepreneurs who bring the ideas and all these players together. Over the medium term, government will (a) provide a nurturing environment for basic R&D, and knowledge creation; (b) support market-driven and customer-centered R&D; (c) scale up technology adoption, utilization, and commercialization; and (d) promote an innovation culture and entrepreneurship. Government will make use of a combination of financial and technical support to academic and skills training institutions, business incubators, and startups. Government will also establish physical and digital platforms to encourage greater collaboration between and among the ecosystem players.

Trade and investments will be promoted to improve the competitiveness of domestic industries, increase demand for Philippine products and generate more jobs

(Chapter 9). International trade will continue to be a major strategy to expand markets, diversify sources for the cumulation of raw and intermediate materials, and increase competitiveness. Thus, government will adopt a purposive, assertive, and forward-looking position in negotiating regional trade agreements. Renewed focus will be given to the survival, growth, and expansion of local firms in the export and domestic markets in order to drive productive employment, and increase incomes.

Government will also position the services sector as the foremost supplier of tradeable intermediate services. To this end, support will be provided to training and retraining programs for the sector and facilitate access to the necessary physical and digital infrastructure.

Foreign direct investments (FDI), on the other hand, will be harnessed as drivers of export growth, sources of vital technology, and critical enablers of the country's long-term climate action. Government will launch an international campaign ("Make it Happen in the Philippines") to raise awareness of the new business climate given the amendments to the FIA, RTLA, PSA, and the CREATE Law. The Inter-agency Investment Promotion Coordination Committee will ensure proper alignment of promotion strategies and various ordinances among national and local governments and investment promotion agencies.

Businesses will be assured of a healthy regulatory environment and a level playing field (Chapter 10). The strategy is to ensure firm and consistent enforcement of the Philippine Competition Act and competition-related issuances. At the same time, regulations will be subjected

to regulatory impact assessment (benefits of the regulation to society *vs.* the cost of compliance, monitoring, and enforcement) to ensure that these are effective in addressing negative externalities and not simply adding to the cost of doing business in the country.

Macroeconomic stability will be ensured (Chapter 11).

- **The health of the financial sector will be enhanced (Subchapter 11.1).** This will improve the efficiency of the financial sector in its role as intermediary between savers and investors, thereby promoting sustained economic growth. The strategies aim to broaden and deepen financial inclusion, and accelerate financial innovation, while ensuring financial sector health. On financial inclusion, the strategies include promoting financial literacy, and facilitating access to financial services and instruments. On financial innovation, government institutions will adopt a "regulatory sandbox" approach for new innovations, promote RegTech, and address information gaps to encourage innovations. To ensure financial health, government institutions will intensify consumer protection, and undertake macro- and micro-prudential measures.

- **Sound fiscal management, including a conducive tax regime, will be fostered (Subchapter 11.2).** These are necessary conditions to foster investor confidence in the economy and ensure macroeconomic stability. As it stands, a medium-term fiscal framework has been proposed and approved by President Marcos, Jr.; and endorsed by Congress. This is an initial step in assuring markets of the government's resolve to exercise fiscal discipline in spending, fiscal programming and debt management.

Individuals, businesses, and civil society will enjoy better connectivity (*Chapter 12*).

Investments in the appropriate infrastructure can help reduce the cost of electricity, ensure water security, and lower the cost of logistics. Such investments will improve access to people, goods and services and information, and promote growth that is more inclusive. Given the limits to government resources and capabilities, PPPs will be further encouraged. Infrastructure sectoral master plans and road maps will be prepared to provide a more comprehensive understanding of the infrastructure gaps and needs, and thus serve as a sound basis for identifying priority infrastructure programs, activities, and projects, including those that may be best pursued through PPP modalities.

Filipinos and residents of the Philippines will enjoy peace and security and an efficient justice system (*Chapter 13*).

- Lasting peace and security enable a stable environment for a strong and vibrant economy (*Subchapter 13.1*).

- At the same time, an efficient justice system characterized by integrity, fairness, accessibility, and a proper regard for the rule of law is necessary for fostering a high-trust society and a favorable business climate (*Chapter 13.2*).

Private sector and civil society will observe marked improvements in bureaucratic efficiency and the practice of good governance (*Chapter 14*). Good governance entails bolstering public accountability

and integrity and deepening participatory governance that ensures that marginalized sectors (e.g., women, children, indigenous peoples, persons with disabilities and in Geographically Isolated and Disadvantaged Areas [GIDA]) have concrete roles and significant influence in all stages of public decision-making.

Given the tight fiscal space, the government must pursue bureaucratic efficiency to maximize the benefits from public spending. Doing so involves rightsizing and a whole-of-government approach in reengineering systems and procedures; accelerating digital transformation in government; and raising the productivity performance of agencies, as well as the competencies of public servants.

Finally, the Plan recognizes the need for collective action to mitigate the climate crisis, and strengthen our resilience to disasters (*Chapter 15*). The priority is to enhance the adaptive capacity of communities and ecosystems that are most vulnerable to natural hazards and climate change. This will be supported by an improved knowledge and data ecosystem, and good governance.

We commit to the following target outcomes over the medium term...

Over the next six years, the development agenda of the Philippines will be guided by the headline targets that prioritize poverty reduction and inclusive growth. While navigating external headwinds, the country will rebuild the losses from the pandemic and invest in improving areas where deep weaknesses were apparent in the pandemic response, for example: in health and responsiveness of social protection; and in mainstreaming resilience throughout the bureaucracy (e.g., local governments, finance, education, disaster risk reduction, and energy security) and communities. This development agenda aims to get the Philippines back on track toward achieving upper middle-income country status by 2025.

Maintain high levels of economic growth in the medium term, rising from 6.0 to 7.0 percent in 2023 to 6.5 to 8 percent from 2024 to 2028. Sustained high levels of growth is a necessary condition for meeting the *AmBisyon Natin* 2040.

Transform the production sectors toward generating more and better-quality jobs, and enabling the competitiveness of enterprises in domestic and international markets. The Philippines aims to continue its progress among the innovation achievers of the region by rising in rank in the Global Innovation Index (GII) from a baseline

of being 59th out of 132 countries in 2022. Similarly, the country will be ranked among the top 33 percent in the Global Competitiveness Index by 2028.

Create more and better-quality jobs. Although unemployment is nearing pre-pandemic levels in 2022 at 5.7 percent, there is much room to improve the quality, productivity, and stability of employment. By 2028, the target unemployment rate is within 4.0 to 5.0 percent, and the percentage of wage and salary workers in private establishments to total employed is within 53 to 55 percent.

Reduce poverty incidence to 9 percent by 2028. This is expected to result from sustained economic growth that generates more and better-quality jobs, and is supported by an efficient SP system.

Keep food and overall prices low and stable. Food and overall inflation will be kept within 2.0 to 4.0 percent. This will then reduce subsistence incidence to 2.5 to 3.5 percent.

Ensure fiscal discipline. National government deficit to GDP ratio will be gradually brought down from 6.5 percent during the first half of 2022 to 3.0 percent in 2028. Outstanding government debt to GDP ratio will also be gradually reduced from 63.7 percent in September 2022 to 51.1 percent by end-2028.

Table 1.1 Table of Headline Indicators

INDICATOR	BASELINE (YEAR)	ANNUAL TARGETS						MEANS OF VERIFICATION
		2023	2024	2025	2026	2027	2028	
Gross domestic product (GDP) increased (growth rate, %)	5.7 (2021) 7.7 (Q1-Q3 2022)	6.0-7.0	6.5-8.0	6.5-8.0	6.5-8.0	6.5-8.0	6.5-8.0	National Accounts of the Philippines (NAP); Philippine Statistics Authority (PSA)
Global Innovation Index improved (GII) rank <i>(Chapter 8)</i>	59 th out of 132 (2022)	57 th	54 th	52 nd	49 th	46 th	43 rd	GII Report
Global Competitiveness Index (GCI) rank and score improved <i>(Chapter 8)</i>	Top 45% Score: 61.9 (2019)	Top 43% Score: 62.1	Top 41% Score: 62.7	Top 39% Score: 62.9	Top 37% Score: 64.3	Top 35% Score: 64.9	Top 33% Score: 65.1	World Economic Forum Global Competitiveness Report
Unemployment rate decreased (%)	5.4 (Ave. Jan, Apr, Jul, Oct 2022)	5.3-6.4	4.4-4.7	4.8-5.1	4.0-5.0	4.0-5.0	4.0-5.0	Labor Force Survey (LFS), PSA
Percentage of wage and salary workers in private establishments to total employed increased (%)	49.6 (Ave. Jan, Apr, Jul, Oct 2022)	50.3-50.7	50.9-51.5	51.4-52.4	51.9-53.3	52.5-54.1	53.0-55.0	LFS, PSA
Gross national income per capita increased	USD3,640 (2021)	USD4,130- USD4,203	USD4,454- USD4,592	USD4,814- USD4,920	USD5,256- USD5,563	USD5,645- USD6,056	USD6,044- USD6,571	World Bank, International Monetary Fund
Poverty incidence reduced (% of population)	18.1 (2021)	16.0-16.4	*	12.9-13.2	*	10.0-10.3	8.8-9.0	Family Income and Expenditure Survey (FIES), PSA
Food inflation rate kept stable (%)	5.7 (Jan-Nov 2022)	2.5-4.5	2.0-4.0	2.0-4.0	2.0-4.0	2.0-4.0	2.0-4.0	PSA
Headline inflation rate kept stable (%)	5.6 (Jan-Nov 2022)	2.5-4.5	2.0-4.0	2.0-4.0	2.0-4.0	2.0-4.0	2.0-4.0	PSA
National Government (NG) deficit to GDP ratio declined (%) <i>(Subchapter 11.2)</i>	6.5 (Q1-Q3 2022)	6.1	5.1	4.1	3.5	3.2	3.0	Bureau of Treasury (BTr)
Outstanding NG debt stock to GDP ratio reduced (%) <i>(Chapter 11.2)</i>	63.7 (Sept 2022)	60-62	57-61	56-59	54-58	50-55	48-53	BTr

...by adopting a whole-of-society approach.

The transformation objectives for each part of the PDP, set against a backdrop of the urgency for post-pandemic recovery, will require strong collective action. The high-level framework laid out in this chapter situates each sectoral strategy and is further

covered in greater depth in the succeeding chapters in this PDP. The strategies integrate the transformation agenda that are needed for a prosperous, inclusive, and resilient society. Through coordinated action involving a whole-of-government and whole-of-society

approach, the country can regain its footing from the impacts of the pandemic, maintain stability in the face of persistent external headwinds, and ease the path of Filipinos toward progress.

Through partnerships and collaborations among the public sector, private industry, civil society, and all communities working toward the common goal of bringing a comfortable and stable life to all Filipinos, the targets of *AmBisyon Natin 2040* remain within reach.

This document is organized into five parts. Part I introduces the objectives, context, and overall strategy of PDP 2023–2028. Part II covers the strategies for developing the potential of Filipinos through sustained human and social investments while simultaneously providing social safety nets to mitigate the impact of risks. Part III discusses ways that seek to transform sectors in agriculture, industry, and services through market expansion, value addition, and inter-sectoral linkages. The

cross-cutting strategies of promoting trade and investment, innovation, and healthy competition and regulatory quality are also covered. Part IV discusses strategies that will create an enabling environment through: good governance and bureaucratic efficiency; ensuring sound macroeconomic fundamentals; infrastructure development; peace, security, and justice; and climate action. Finally, Part V reviews the implementation and monitoring of the Plan over the next six years.

Each chapter/subchapter is organized into four sections. The first section, Assessment and Challenges, discusses the most recent data showing progress in the sector, followed by the constraints or weaknesses faced by stakeholders in the sector. The second section illustrates the Strategy Framework, which then frames the discussion of the Strategies in the third section. The chapter/subchapter ends with the priority Legislative Agenda that the Executive Branch, in consultation with various stakeholders, consider as critical in unlocking the constraints faced by the sector.

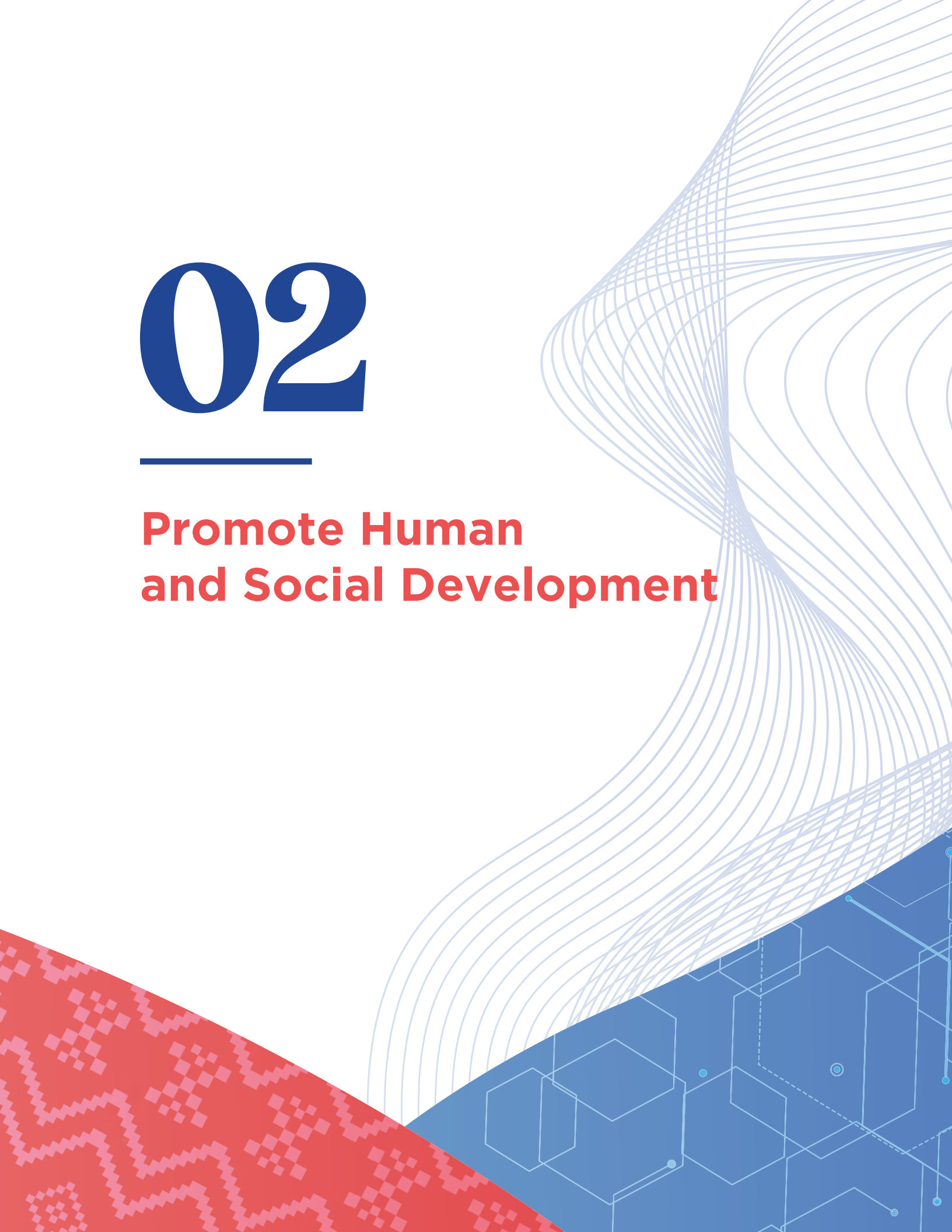
- ¹ Department of Health Office of the Secretary. 2021. Guidelines on the Conduct of Catch-Up of Routine Immunization for Children. <https://dmas.doh.gov.ph:8083/Rest/GetFile?id=692853>.
- ² World Bank and UNESCO. 2022. Philippines – Learning Poverty Brief – 2022 (English). <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099000207152223103/idu002b5536c0db4104ec3087d809906ec2eae56>.
- ³ Philippine Identification System. 2022. Dashboards. <https://www.philsys.gov.ph>.
- ⁴ Asian Development Bank and UN World Tourism Organization. 2022. COVID-19 and the Future of Tourism in Asia and the Pacific. <https://www.adb.org/sites/default/files/publication/784186/covid-19-future-tourism-asia-pacific.pdf>.
- ⁵ Alvarez, Pablo. 2022. What Does the Global Decline of the Fertility Rate Look Like? World Economic Forum. <https://www.weforum.org/agenda/2022/06/global-decline-of-fertility-rates-visualised/#:~:text=For%20the%20last%2070%20years,increased%20cost%20of%20raising%20children>.
- ⁶ World Health Organization. 2022. Ageing and Health. [https://www.who.int/news-room/fact-sheets/detail/ageing-and-health#:~:text=By%202030%2C%201%20in%206,will%20double%20\(2.1%20billion\)](https://www.who.int/news-room/fact-sheets/detail/ageing-and-health#:~:text=By%202030%2C%201%20in%206,will%20double%20(2.1%20billion)).
- ⁷ Philippine Statistics Authority. Total Fertility Rate Declined from 2.7 in 2017 to 1.9 in 2022. <http://psa.gov.ph>.
- ⁸ Philippine Overseas Employment Administration. POEA Governing Board Resolution No. 09, Series of 2020. <https://law.upd.edu.ph/wp-content/uploads/2020/09/POEA-Governing-Board-Resolution-No-09-Series-of-2020-1.pdf>.
- ⁹ CNN Philippines. 2022. Marcos to Raise Deployment Cap of Nurses Abroad. September 1. <https://www.cnnphilippines.com/news/2022/9/1/Marcos-raise-deployment-cap-nurses-abroad-.html>.
- ¹⁰ International Monetary Fund. 2022. World Economic Outlook Report October (WEO) 2022: Countering the Cost of Living Crisis. <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>.
- ¹¹ Brenton, Paul, Michael J. Ferrantino, and Maryla Maliszewska. 2022. Reshaping Global Value Chains in Light of COVID-19: Implications for Trade and Poverty Reduction in Developing Countries. Washington, DC: World Bank.
- ¹² Kose, M. Ahyar, Peter Nagle, Franziska Ohnsorge, and Naotaka Sugawara. 2021. Debt Tsunami of the Pandemic. Brookings Institute. <https://www.brookings.edu/blog/future-development/2021/12/17/debt-tsunami-of-the-pandemic/#:~:text=In%202020%2C%20total%20global%20debt,and%20the%20majority%20of%20countries>.
- ¹³ Stackpole, Beth. 2022. Ripple Effects from Russia-Ukraine War Test Global Economies. Massachusetts Institute of Technology. <https://mitsloan.mit.edu/ideas-made-to-matter/ripple-effects-russia-ukraine-war-test-global-economies>.
- ¹⁴ Sacks, Benjamin J. 2022. The Political Geography of the South China Sea Disputes. RAND Corporation. <https://www.rand.org/pubs/perspectives/PEA2021-1.html> (accessed November 9, 2022).
- ¹⁵ United Nations. 2022. "Sustainable Blue Economy Vital for Small Countries and Coastal Population." June 28, 2022. <https://news.un.org/en/story/2022/06/1121562>.
- ¹⁶ The ASEAN Secretariat and the United Nations Conference on Trade and Development. 2021. ASEAN Investment Report 2020-2021: Investing in Industry 4.0. <https://asean.org/wp-content/uploads/2021/09/AIR-2020-2021.pdf>.
- ¹⁷ Yang, Chun. 2016. "Relocating Labour-Intensive Manufacturing Firms from China to Southeast Asia: A Preliminary Investigation." *Bandung* 3 (1). <https://doi.org/10.1186/s40728-016-0031-4>.
- ¹⁸ Brenton et al. (2022).
- ¹⁹ United States Bureau of Industry and Security. 2022. Commerce Implements New Export Controls on Advanced Computing and Semiconductor Manufacturing Items to the People's Republic of China (PRC). October 7, 2022. <https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3158-2022-10-07-bis-press-release-advanced-computing-and-semiconductor-manufacturing-controls-final/file>.
- ²⁰ p. 81, ASEAN Investment Report 2020-2021 (2021).
- ²¹ Lindsey, Rebecca and Luann Dahlman. 2022. Climate Change: Global Temperature. June 28, 2022. <https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature>.
- ²² International Institute for Sustainable Development. 2021. Glasgow Climate Change Conference (UNFCCC COP 26). November 13, 2021. <https://sdg.iisd.org/events/2020-un-climate-change-conference-unfccc-cop-26/>.
- ²³ UNFCCC (United Nations Framework Convention on Climate Change). 2021. The Glasgow Climate Pact – Key Outcomes from COP26. December 13, 2021. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26>.
- ²⁴ Gelles, David. 2022. "After Decades of Resistance, Rich Countries Offer Direct Climate Aid." *New York Times*. November 14, 2022. <https://www.nytimes.com/2022/11/08/climate/loss-and-damage-cop27-climate.html>.
- ²⁵ Khalifa, Mostafa. 2022. A Study of a Business Continuity Role during a Pandemic for the Retail Industry. International Business Management, Siam University (thesis). <https://e-research.siam.edu/wp-content/uploads/2022/03/IMBA-2021-IS-A-Study-of-a-Business-Continuity-Role-During-a-Pandemic-for-the-Retail-Industry.pdf>.
- ²⁶ Hass, Kim, Kimball, et al. (2021)
- ²⁷ Global Data Alliance. 2020. Cross-Border Data Transfer Facts and Figures. <https://globaldataalliance.org/wp-content/uploads/2021/07/gdafactsandfigures.pdf>.
- ²⁸ Park, Cyn-Young, Sanchita Basu-Das, and Pramila Crivelli. 2021. "Three Areas Where RCEP May Help the Region's Post-Pandemic Recovery." Asian Development Blog. <https://blogs.adb.org/blog/three-areas-where-rcep-may-help-region-s-post-pandemic-recovery>.
- ²⁹ World Bank. 2019. Global Connectivity Outlook to 2030. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/829491560927764816/global-connectivity-outlook-to-2030>.
- ³⁰ Hausmann, Ricardo. 2022. "Green Growth Opportunities." IMF Finance and Development. https://www.imf.org/en/Publications/fandd/issues/2022/12/green-growth-opportunities-ricardo-hausmann?utm_medium=email&utm_source=govdelivery.
- ³¹ Nayyar, Gaurav, Mary Hallward-Driemeier, and Elwyn Davies. 2021. At Your Service? The Promise of Services-Led Development. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/35599> License: CC BY 3.0 IGO.
- ³² Department of the Interior and Local Government. 2022. DILG-NCR Starts Discussions on Mandanas-Garcia Ruling Implementation. <https://ncr.dilg.gov.ph/dilg-ncr-starts-discussions-on-mandanas-garcia-ruling-implementation/>.

PART II

Develop and Protect Capabilities of Individuals and Families

02

**Promote Human
and Social Development**



PROMOTE HUMAN AND SOCIAL DEVELOPMENT

By 2028, Filipinos are envisioned to have long and healthy lives in livable communities with enough opportunities for high-quality lifelong learning for them to become healthy, smart, and innovative people. These communities should support the overall well-being of Filipinos by guiding them to make healthy choices and ensuring access to health services. Transformative lifelong learning opportunities are also instrumental in developing the capabilities of Filipino families and leading them to achieve their full potential. Finally, these efforts are enabled by an upgraded plan for human settlements that provide equitable, inclusive, and resilient environments and promote economic vitality. This chapter lays down the lessons learned from previous efforts in human and social development as well as key transformational strategies that boost the health and well-being of Filipinos, improve education and lifelong learning, and establish livable communities.

This chapter presents the challenges facing the health sector and the outcomes to be pursued to address these challenges during the Plan period. It consists of three subchapters with the following outcomes. In subchapter 2.1: (a) social determinants of health improved; (b) healthy choices and behavior enabled; (c) access, quality, and efficiency of health care improved; and (d) health systems strengthened. In subchapter 2.2: (a) quality, inclusive, adaptive, resilient, and future-ready basic education for all achieved; (b) globally competitive and inclusive technical and vocational education and training and higher education, and improved research output attained for a broader knowledge economy; and (c) governance for human capital development improved. In subchapter 2.3: (a) social environment promoted; (b) environmental quality improved; (c) built environment upgraded; and (d) responsive governance advanced.

Subchapter 2.1 Boost Health

Ensuring that Filipinos are healthy is fundamental to the transformational goals of *AmBisyon Natin 2040* and the current administration's socioeconomic agenda. By 2028, Filipinos throughout the country will enjoy longer and healthier lives, because they live, work, and learn in communities, workplaces, and schools that better support their well-being; they are guided to make healthy choices; and they are assured access, with financial protection, to quality health services when needed.

Assessment and Challenges

While gains were made in several key health outcomes pre-pandemic, overall progress was mixed. Pandemic-related disruptions to service delivery and demand created additional backlogs, which further challenged health system capacities. Estimates on average life expectancy at birth increased in 2015 to 2020 relative to 2010 to 2015, but these still fell below target.

Mortality rates among neonates, infants, and children under five remained virtually unchanged between 2017 and 2022. The maternal mortality ratio increased to 144 per 100,000 live births (LB) in 2020 from 108 in 2018,¹ in part likely due to pandemic-related obstacles to accessing prenatal care and facility-based deliveries.² Although the prevalence of modern family planning (MFP)

use among women of reproductive age slightly decreased by 0.6 percentage points (ppt) between 2017 and 2022, the fertility rate decreased from 2.7 children per woman in 2017 to 1.9 in 2022. Moreover, LB among adolescent mothers aged 15–19 years old also decreased from 47 per 1,000 women in 2017 to 25 in 2022.

Slow progress was seen in childhood nutrition outcomes, with potentially lifelong health, education, and, ultimately, economic effects. From 2015 to 2021, the prevalence of stunting among children under five years old decreased from 33.4 to 26.7 percent and wasting from 7.1 to 5.5 percent while overweight remained at 3.9 percent. However, the rate of decline in stunting prevalence has been relatively slow compared to other countries with similar levels of income.³

Childhood immunization coverage has remained under target. Although the proportion of fully immunized children (with basic antigens) increased by two ppt in 2022 compared to the 2017 baseline of 70 percent, it still did not meet the 95 percent target. This led to inadequate protection from vaccine-preventable diseases and their consequences for millions of children.⁴ Basic vaccination coverage is worse among low-income households than middle- to high-income households. This is likely due to a combination of low demand and obstacles to supply, despite basic vaccination being required for conditional cash transfers.⁵ Parental hesitancy has also been cited as a factor.⁶ Since 2020, the diversion of human and other resources toward higher-priority coronavirus disease (COVID-19) vaccination programs hampered the immunization of children.

The triple burden of disease—communicable diseases, noncommunicable diseases (NCD), and globalization-related health conditions like pandemics—continue to be a priority public health concern. NCDs related to unhealthy lifestyles and environments and an increasingly ageing population are currently the leading cause of mortality among Filipino adults—and the burden is increasing.⁷ Communicable diseases also remain a challenge. Active case-finding and mandatory notification contributed to a rise in recorded incidence of tuberculosis (TB) from 2016 to 2020, but this may also have been due to a true increase in cases.^{8, 9}

Conditions directly related to urbanization, globalization, and the environment are also growing in importance, with disproportionate vulnerability among poor households and marginalized communities. Even with the passage of the Mental Health Act (Republic Act 11036), which mandates the provision of mental health services, only 1.4 percent of the Current Health Expenditure (CHE) in 2021 went to mental and behavioral disorders, and neurological conditions. Thus, access to public mental health services remains limited for vulnerable households.¹⁰ Health risks from poor air quality and congested living conditions are increasing, especially in urbanized areas.¹¹ Incremental increases in temperature and changing rainfall regimes impact health directly and affect livelihood, further exacerbating poverty-driven health impacts.¹²

Major health sector reforms and plans intended to improve financial protection and access to healthcare services are being pursued, but significant obstacles to implementation remain. Since 2017,

several laws and plans have been passed, such as: the Universal Health Care (UHC) Law (RA 11223), Mental Health Act (RA 11036), National Integrated Cancer Control Law (RA 11215), First 1,000 Days Law (RA 11148), New Sin Tax Reform Law of 2020 (RA 11467), Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act (RA 11332), the Philippine Health Facilities Development Plan (PHFDP 2020–2040), and the National Human Resources for Health Master Plan (NHRHMP 2020–2040).

The effectiveness of these reforms is limited by fragmented health systems that hamper coordinated planning and services, inequitable access to quality primary- and higher-level health care services, and a lack of sustained financing for local health interventions.¹³ Moreover, high variations in local government unit (LGU) investments and actions for health persist, with damaging effects on already-vulnerable communities and populations.¹⁴

There are sustained and growing gaps in absolute number and inequitable distribution of health infrastructure and human resources for health.¹⁵ The shortfall impedes progress in implementing No Co-payment policies in both private and government hospitals, prevents delivery systems from adjusting quickly to surges in health demand, and further compromises health outcomes in already-vulnerable communities. Factors affecting the maldistribution of health workers include disparities in pay between private and public sectors, within the public sector, and between national and local levels; limited capacity of LGUs to hire health and nutrition workers; and poor working conditions.¹⁶

Gains from previously enacted health system reforms in health care financing and service delivery are not yet maximized. For example, while the Sin Tax Law increased revenues available for public health programs,^{17,18} the large health benefits gained from decreased consumption of harmful products¹⁹ are more significant. Conditional cash transfers continue to be a viable mechanism for leveraging health promotion, promoting preventive behaviors, and accessing primary healthcare among poor households.²⁰

Addressing implementation delays in UHC financing and catching up on programs of other reforms will be crucial to reach health sector targets (*See Box 2.1*). In 2021, total health spending reached its highest ever share of gross domestic product (GDP) and out-of-pocket (OOP) payments spending dropped to its lowest. However, OOP share in CHE remained high at 41.5 percent.

Although government and compulsory contributory health care financing schemes were the largest source of health financing in the country, the contribution of social health insurance to CHE in 2021 was only 13.6 percent, lower than its share of 17.2 percent in 2017. CHE for preventive care increased from 9.2 percent in 2017 to 14.9 percent in 2021, but curative care still accounts for the highest share of CHE at 46.3 percent in 2021. Moreover, families in the two poorest income quintiles still accounted for 30.5 percent of CHE.

Finally, despite the urgent need for support for health information systems and innovation, only 1.3 percent of health capital formation expenditure in 2021 went into information and communications technology equipment, intellectual property products, and computer software and databases.

Box 2.1. COVID-19 in the Philippines: Impacts and Health Sector Challenges

Since the first confirmed COVID-19 case on January 31, 2020, the country has recorded over 4 million cases. COVID-19 was reported as the third leading cause of mortality in 2021. As of November 1, 2022, a total of 73.55 million Filipinos have been fully vaccinated against COVID-19, with 20.6 million Filipinos covered with an additional dose.

Beyond its health effects, the pandemic also had major economic impacts, including increased spending for health as evidenced in the 2021 Philippine National Health Accounts; reduced economic activities; and increased national debt. At the health system level, redirected investments and efforts to address the COVID-19 pandemic delayed the implementation of key UHC reforms and accumulated backlogs in healthcare service delivery that will require additional resources to catch-up.

Post-pandemic, the health sector needs to simultaneously address three critical challenges: (a) managing the endemic phase of COVID-19; (b) catching up with backlog and recovery from long-term COVID-19 health and system effects; and (c) ensuring resilience to future threats from emerging and re-emerging infectious diseases.

References:

DOH. (2022). COVID-19 Case Tracker. <https://doh.gov.ph/covid19tracker>

DOH. (2022). COVID-19 Vaccination Dashboard. <https://doh.gov.ph/vaccines>

Panolo, C. (2022). "Investing in UHC post-pandemic" Presented at PHCON 2022, annual conference of the Philippine Society for Public Health Physicians. 30 September 2022

UNFPA. (2020). <https://philippines.unfpa.org/en/news/significant-rise-maternal-deaths-and-unintended-pregnancies-feared-because-covid-19-unfpa-and>

Strategy Framework

While health care services are essential to health, it is a relatively weak determinant. Socioeconomic factors, the physical environment, and health-related behaviors account for 80 to 90 percent of modifiable contributors to population health outcomes.^{21,22} The social determinants of health can be addressed through collaborative whole-of-government and whole-of-society interventions that promote healthy schools, communities, and workplaces, and enable healthy lifestyles through improved health literacy and health-seeking behavior. Addressing persistent and growing gaps in the access to and quality of healthcare services, ensuring that health care is equitably distributed, and improving financial risk protection, especially for disadvantaged populations, are needed to improve the

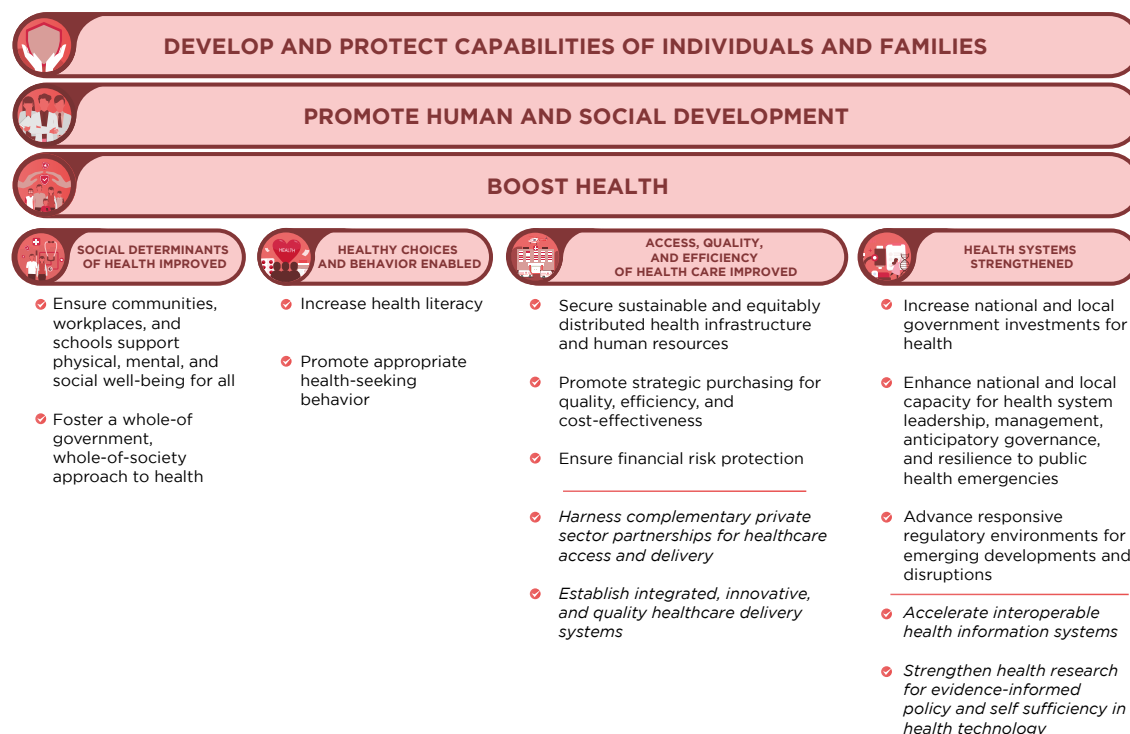
remaining health care-related contributors to health outcomes.

The strategy framework (*See Figure 2.1*) is built on the vision of a holistic approach to improve health outcomes, reduce health inequities where they exist, and achieve UHC. The crucial contribution of non-health government agencies and non-government health system stakeholders to attain societal health objectives is also highlighted. The first pillar describes a society that promotes physical, mental, and social well-being for all Filipinos, especially those living in vulnerable households and communities. The second pillar focuses on empowering individuals and households to make appropriate choices regarding their own health and seeking care when needed. The third pillar describes the

health care delivery system, both public and private, that Filipinos should be able to access. The last pillar emphasizes crucial

capacitating measures for the health system that need to be bolstered to support the other outcomes.

Figure 2.1 Strategy Framework to Boost Health



Strategies

Outcome 1: Social determinants of health improved

Ensure communities, workplaces, and schools support physical, mental, and social well-being for all

The social determinants of health refer to “non-medical factors that influence health outcomes.”²³ Settings that promote well-being and make health-promoting opportunities and alternatives available to households require collaborative and coordinated action between national and local governments, as well as government and private entities.

Strategies include enabling active transport environments, livable communities, and efficient transportation; promoting safe and conducive working and learning spaces for all Filipinos; and ensuring access to safe drinking water, basic sanitation, and nutritious food choices (See Subchapters 2.2 and 2.3 and Chapters 3 and 12).

Foster a whole-of-government, whole-of-society approach to health

Some of the key non-health drivers of health outcomes such as attainment of gender equality, and improvement in education and household income will need strong, sustained, multisectoral, and multistakeholder action. Multisectoral and multistakeholder approaches are also needed to intensify health promotion activities. Within the government, inter-agency collaboration will also be strengthened, such as but not limited to healthy public

policies; healthy communities with the Department of the Interior and Local Government (DILG) on nutrition and physical activity, and environmental health; healthy schools with education agencies on comprehensive sexuality education, mental health, and healthy lifestyle; *Nutriskwela* Community Radio Network Program with the National Nutrition Council (NNC); and healthy workplaces with the Department of Labor and Employment and Civil Service Commission on nutrition and physical activity, and mental health.

Outcome 2: Healthy choices and behavior enabled

Increase health literacy

Health literacy describes the ability to access, appraise, and correctly apply health information. It is key to patient empowerment, healthy behaviors, and appropriate self-care. Well-designated, targeted, gender- and culture-sensitive social and behavior change communication campaigns using multiple communication media will continuously be implemented to encourage individuals and households to live healthily and make good choices for health. Existing platforms, such as but not limited to the *Pantawid Pamilyang Pilipino* Program's Family Development Sessions, will be maximized for health promotion and advocacy among poorer households. Market-segmented and innovative demand-generation strategies will be pursued for primary services like immunization, MFP, and maternal health.

Promote appropriate health-seeking behavior

Households and individuals will be empowered with the knowledge and resources to recognize when medical care is necessary, and to seek care at the appropriate levels when needed. National patient navigation and referral systems will ensure a continuum of appropriate and coordinated care from primary to tertiary and across geopolitical networks. Facilitating the registration of Filipinos to public or private primary care providers of their choice can promote the efficient use of health services and reduce wastage at other levels of care.

Outcome 3: Access, quality, and efficiency of health care improved

Secure sustainable and equitably distributed health infrastructure and human resources

The PHFDP 2020–2040 and NHRHMP 2020–2040 contain several strategies that will be implemented to address the large and growing gap in these crucial inputs to health care services. Increasing the number, improving the distribution, and assuring the quality of hospitals, including establishing regional specialty centers, are ongoing priorities. Infrastructure investments will also be prioritized to improve primary health and community facilities, supplies and equipment, and information technology systems (*See Chapter 12*). This also includes national and local support to enhancing technical service capabilities of primary health care (PHC) and community workers for increased responsiveness to local health needs.

The NHRHMP, the Magna Carta for Public Health Workers (RA 7305), Nursing Practice Act (RA 9173), and Barangay Health Workers and Benefits Act (RA 7883) all emphasize that improving the number and distribution of human resources for health (HRH) is highly dependent on improving the welfare of the HRH workforce—including nutrition and community health workers. This is done by providing standardized and competitive compensation, protection, benefits, and incentives and ensuring gender equality in the health workforce. Needs-based HRH forecasting and production approaches will be applied, in cooperation with the Commission on Higher Education (CHED),

the Professional Regulation Commission, and health professional organizations. Partner institutions for clinical rotations and expanded scholarships and training fellowships with return service agreements will also help increase HRH supply.

Promote strategic purchasing for quality, efficiency, and cost-effectiveness

Strategic purchasing refers to an evidence-based process of linking payments from pooled health funds to information on provider performance and population health needs.²⁴ This includes adopting provider payment arrangements that incentivize patient-centered PHC and create incentives for improving quality and efficiency in health service delivery. Timely, rigorous, and transparent health technology assessment processes will also be ensured and supported for the adoption of cost-effective technologies.

Ensure financial risk protection

Filipinos who require health care services and technology must not experience financial hardship when accessing care. Securing predictable, sustainable, and equitably financed funding for UHC reforms is critical. Pooling public funds for health can streamline financing for the delivery of population- and individual-based health services. Shifting a portion of OOP to pooled health financing schemes that include both social and private health insurance and government funds can maximize the

redistributive capacity of pooled health funds. In parallel, awareness of social health insurance benefits and membership obligations will be enhanced, along with the adoption of transparent and fixed co-payment and co-insurance policies.

Harness complementary private sector partnerships for health care access and delivery

The COVID-19 pandemic highlighted the complementary strengths and innovations in the private sector. These will be harnessed to address gaps in public service and health technology delivery systems. A framework and guide that allow and encourage private entities to contribute to the implementation of national and local health programs will be established.

Establish integrated, innovative, and quality health care delivery systems

Effective managerial, informational, and financial integration of private and public service delivery systems across national and local boundaries can maximize economies of scale, enable more comprehensive planning, and promote efficient health spending. At the most fundamental level, this means

ensuring the accessibility of gender- and culture-sensitive PHC services across the life stages and different levels of care, providing integrated packages of health, nutrition, immunization, family planning (FP), tuberculosis (TB), human immunodeficiency virus (HIV)/ acquired immunodeficiency syndrome (AIDS), and adolescent health services, among others. Delivery systems will also ensure availability, accessibility, and affordability of safe, efficacious, and quality essential medicines and other needed health technologies.

Moreover, access interventions will prioritize geographically isolated and disadvantaged areas, marginalized populations, and indigenous peoples communities. Multisectoral partnerships with resolved payment mechanisms will be pursued to deliver telemedicine, capability support for community health care workers, remote health care services, and other innovations for health. Emergency medical services including paramedic, ambulance, and other patient transport services are also crucial to reaching more underserved and unserved areas with timely health care.

Outcome 4: Health systems strengthened

Increase national and local government investments for health

The PHC system is crucial to the implementation of the UHC. Significant investments are necessary to ensure sustainable human and material resources for PHC. As the potential resource base of LGU allotment has increased given the

Mandanas-Garcia Ruling, safeguards will be established to ensure continuous and sustained LGU investments for health. Shifting to matching grants, performance-based grants, and similar incentive schemes will help steer spending for health and improve LGU capacity to deliver both population and individual-based health services, as well as increase accountability to local health systems.

Implementation of the Special Health Fund to pool resources for health at the province or city level will enable both the national and local governments to maximize economies of scale and pursue more strategic planning, allocation, and management of local resources. Increases in health investments will also be matched with investments in HRH. To allow LGUs to hire more local health personnel, the Personnel Services cap in the Local Government Code will be adjusted. At the national level, sustainable financing arrangements in support of UHC will be pursued and both available and emerging financing opportunities will be maximized.

Enhance national and local capacity for health system leadership, management, anticipatory governance, and resilience to public health emergencies

This includes strengthening technical and policy expertise, and increasing public financial management capabilities, including in Philippine Health Insurance Corporation (PhilHealth) and other national agencies critical to UHC implementation. Resilience to public health emergencies will be increased by enhancing LGU capacity and capability for basic epidemiology, disease surveillance, and event-based surveillance. Health system structures that contribute to the ability to respond quickly to diseases of public health concern, such as the Center for Disease Control and Prevention (CDC) and the Philippine Public Health Laboratory System, will be established and strengthened.

Advance responsive regulatory environments for addressing emerging developments and disruptions

Specific strategies include facilitating regulatory pathways and adopting sandbox approaches to regulation, especially for emerging developments, emergency medicines, technologies, business models, and innovations. Regulatory sandboxes and partnerships between publicly funded health care providers and private small and medium enterprises (SME) and startups make it easier to innovate and test new technologies and health delivery models for equity (*See Chapter 8*). Responsiveness can also be encouraged by institutionalizing periodic horizon scanning for new developments, to draw out their policy and long-run ethical implications among health system stakeholders. Risk-based regulation is particularly important for actions addressing health consequences of climate change.

Accelerate interoperable health information systems

Well-designed health information systems (HIS) and institutionalized application of health care analytics enable health sector governance by allowing evidence-informed clinical and policy decision-making, increasing responsiveness, promoting transparency and accountability, multiplying productivity, and decreasing operational wastage. An enabling environment for sector-wide application of digital technologies for health will be fostered through implementation of the components of the Philippine eHealth Strategic Framework and Plan. Multisectoral engagements will be maximized for

investments in physical technology and software platforms, services, and applications to support health information exchange. Other priority areas include improving the National Health Insurance Program information systems, to manage enrollment, collection, and claims processing, and streamlining licensing and permit processes with the Department of Health (DOH), PhilHealth, Food and Drug Administration, and other government institutions, to address some barriers to health facility and technology access.

Strengthen health research for evidence-informed policy-making and self-sufficiency in health technology

Robust health research ensures the best available evidence to guide and inform policymakers in the selection of possible strategies to achieve health system goals.

It can also lead to self-sufficiency in health technology by ensuring that health investments are prioritized for high-value innovations—including traditional, complementary, and alternative health care products and services—that improve the quality of life of Filipinos. As such, promoting institutionalization of decision-making based on health research, development, and innovation (RDI) will be a priority. Increased, dedicated, and conditioned funding will focus on health RDI that: (a) translate basic health research into practical aspects; (b) promote low-cost and climate-resilient innovations for remote populations and vulnerable sectors based on projected health needs and service delivery gaps in the medium term; and (c) improve capacity for high quality local vaccine and medicine development and production (*See Chapter 8*).

Legislative Agenda

Table 2.1.1 presents the priority legislative agenda that will complement and support the strategies to further improve and boost health outcomes.

Table 2.1.1 Legislative Agenda to Boost Health

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Trans Fat Elimination	The proposed measure will ban all forms of industrial trans fatty acids; prohibit the sale, manufacture, importation, and distribution of partially hydrogenated oils and oil and fats with high trans-fat acid content.	Department of Health (DOH), Food and Drug Administration, and Department of Science and Technology (DOST)
Establishment of a Medical Reserve Corps (MRC)	The MRC will include licensed physicians, medical degree holders, students who have completed four years of a medical course, registered nurses, and licensed allied health professionals who may be called upon to assist the national government, its agencies and instrumentalities, and the LGUs in addressing the medical needs of the public. The President will have the authority to order the nationwide mobilization of the MRC to complement the Armed Forces of the Philippines Medical Corps in case of declaration of a state of war, state of lawless violence, or state of calamity.	DOH
Establishment of Specialty Centers	This bill seeks to establish specialty centers that will provide and improve access to specialized health care services.	DOH
Creation of the Philippine Center for Disease Control and Prevention (CDC)	The following are the key features of the proposed measure: (a) creation of the CDC under the DOH for policy and program coordination; (b) ensuring the health system is well prepared to forecast, prevent, monitor, and control diseases, injuries, and disabilities both of national and international concern; (c) recentralization of local epidemiology and surveillance units; (d) strengthening epidemiology, public health surveillance, and research capacities; and (d) ensuring investments to better equip the country in response to public health emergencies.	DOH
Creation of the Virology and Vaccine Institute of the Philippines	This Institute will be an attached agency of the Department of Science and Technology and will serve as the country's principal virology laboratory, providing investigations, research, and technical coordination of the entire network of virology laboratories across the country <i>(See Chapter 8).</i>	DOST

Results Matrix

Table 2.1.2 presents the indicators and targets to achieve results for boosting health.

Table 2.1.2 Results Matrix: Boost Health

Indicator	Baseline (Year)	Annual Targets						Means of Verification	Responsible Agency/ Inter-Agency Body
		2023	2024	2025	2026	2027	2028		
Subchapter 2.1: Boost Health (Impact Indicators)									
Average life expectancy increased (years)								Population Projections and Civil Registration and Vital Statistics (CRVS)	Department of Health (DOH)
Male	69.63 (2020)						71.14		
Female	75.91 (2020)						77.42		
Maternal mortality ratio decreased (per 100,000 live births)	144 (2020)	87	84	81	78	76	74	Philippine Statistics Authority Estimates	DOH
Neonatal mortality rate decreased (per 1,000 live births)	15 (2022)	10.54	9.96	9.38	8.81	8.23	7.65	National Demographic and Health Survey (NDHS)	DOH
Infant mortality rate decreased (per 1,000 live births)	22 (2022)	15.83	14.97	14.11	13.25	12.38	11.52	NDHS	DOH
Under-5 mortality rate decreased (per 1,000 live births)	26 (2022)	24.09	23.61	23.12	22.64	22.15	21.67	NDHS	DOH
Premature mortality rate attributed to cardiovascular disease, cancer, diabetes, and chronic respiratory diseases decreased (number of deaths per 1,000 population aged 30–70 years old)	4.6 (2020)	3.22	2.76	2.30	1.84	1.38	0.92	CRVS	DOH
Death rate due to road traffic accidents decreased (per 100,000 population)	8.0 (2020)	5.63	4.84	4.05	3.26	2.47	1.68	CRVS	Department of Transportation, Metropolitan Manila Development Authority, Department of Public Works and Highways (DPWH)
Tuberculosis (TB) incidence decreased (per 100,000 population)	650 (2021)	Decreasing						World Health Organization Global TB Report	DOH

Indicator	Baseline (Year)	Annual Targets						Means of Verification	Responsible Agency/ Inter-Agency Body
		2023	2024	2025	2026	2027	2028		
Outcome 1: Social determinants of health improved									
Safe water supply coverage increased [% families] ^a	91.60 (2020)	93.28	94.12	94.96	95.80	96.64	97.48	Annual Poverty Indicator Survey (APIS)	Metropolitan Waterworks and Sewerage System (MWSS), Water Districts (WDs), Rural Water Systems (WS), Water Service Providers (WSP)
Access to basic sanitation increased [% families] ^b	93.90 (2020)	95.12	95.73	96.34	96.95	97.56	98.17	APIS	MWSS, WDs, Rural WS, WSP
Percentage of targeted communities, schools, and workplaces recognized as Healthy Settings increased (%)	0 (2022)	10	20	30	40	50	60	DOH Admin Data	DOH
Percentage of women (aged 18–49 years old) completing Grade 12 or higher increased (%)	48.5 (2022)	Increasing						NDHS	Department of Education, Commission on Higher Education, Technical Education and Skills Development Authority
Prevalence of stunting among children under 5 years of age decreased [%] ^c	26.7 (2021)	25.2	23.8	22.3	20.8	19.4	17.9	Expanded National Nutrition Survey	National Nutrition Council
Poverty incidence decreased [%] ^d	18.1 (2021)	16.0-16.4		12.9-13.2		10.0-10.3	8.8-9.0	Family Income and Expenditure Survey (FIES)	
Outcome 2: Healthy choices and behavior enabled									
Percentage of Filipinos with functional health literacy increased (%)	25.02 (2021)	32	39	46	53	59	66	Health Literacy Survey	DOH
Proportion of women aged 15–49 years who make their own informed decisions regarding sexual relations, contraceptive use, and reproductive health care increased (%)	82.3 (2022)	Increasing						NDHS	DOH, Commission on Population and Development

INDICATOR	BASELINE (YEAR)	ANNUAL TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Outcome 3: Access, quality, and efficiency of health care improved									
Percent of provinces with adequate bed-to-population ratios increased (%)	33.3 (2021)	35	40	45	50	55	60	DOH Admin Data	DOH
Percent of provinces with adequate primary care facilities increased (%)	20.9 (2021)	25	30	35	40	45	50	DOH Admin Data	DOH
Percentage of identified cities and provinces with adequate HRHe-to-population ratio based on WHO reference ratios to achieve Sustainable Development Goals increased (%)	Medical Doctor (MD): 3 Registered Nurse (RN): 2 Registered Midwife (RM):82	MD: 3 RN: 2 RM:82	MD: 4 RN: 3 RM:83	MD: 5 RN: 4 RM:84	MD: 6 RN: 5 RM:85	MD: 7 RN: 6 RM:86	MD: 8 RN: 7 RM:87	DOH Admin Data	DOH
Number of UHC Integration Sites that achieved the target number of Key Result Areas for a particular level in the Local Health Systems Maturity Levels	0 (2022)	At least 58 UHC-Integration Sites (IS) reached at least 70% of the Level 2 Local Health Systems (LHS) Maturity Level (ML) Key Results Areas (KRA)	At least 58 UHC-IS reached 100% of the Level 2 LHS ML KRA; At least 58 UHC-IS reached at least 70% of the Level 3 LHS ML KRA	At least 58 UHC-IS reached 100% of the Level 3 LHS ML KRA	TBD*	TBD*	TBD*	DOH Admin Data	DOH
Household OOP health spending as percentage of CHE decreased (%)	41.5 (2021)	37.7	35.8	33.8	31.9	30.0	28.1	Philippine National Health Accounts	DOH, PhilHealth
Outcome 4: Health systems strengthened									
Percent of health facilities with paperless electronic medical record (EMR) and regularly submit data increased (%)	80% of public facilities only (2019)	85% of public health facilities	100% of public health facilities	40% of private health facilities	60% of private health facilities	80% of private health facilities	100% of private health facilities	DOH Admin Data	DOH, PhilHealth
Percentage of functional regional and local Epidemiology and Surveillance Units increased (%)	41 (2019–2020)	51	59	67	75	83	100	DOH Admin Data	DOH

Note: The targets will be based on the Executive Order on Integration, which will be issued by the President following the evaluation study on the overall benefits of the local health system integration by Joint Congressional Oversight Committee on UHC.

a,b/ See Chapter 12: Safe water supply sources include piped water, boreholes or tube wells, protected dug wells, protected springs, rainwater, and packaged or delivered water. This indicator covers the use of improved sanitation facilities such as flush or pour flush to piped sewer systems, septic tanks, or pit latrines; and ventilated improved pit latrines, composting toilets or pit latrines with slabs, shared or not shared with other households.

c/ See Chapter 3.

d/ Headline indicator.

Subchapter 2.2 Improve Education and Lifelong Learning

Filipinos are also envisioned to be smart and innovative with learning poverty substantially addressed. Filipino learners have access to high-quality lifelong learning opportunities that develop adequate competencies and character qualities which will allow them to thrive in society and the world of work. Transformative lifelong learning opportunities will be instrumental in developing and protecting the capabilities of families to ensure that all Filipinos are able to realize their full potential to keep pace with the envisioned socioeconomic transformation.

Assessment and Challenges

The Philippine education system is in urgent need of transformation. This has been the assessment of many studies on education over the past decades. In 1991, the Education Commission pointed out the looming crisis in the overall quality of education in the country. In 2022, over three decades later, a second Education Commission will be convened to address the education crisis. Education infrastructure continues to grapple with inadequacies in education perennials—classrooms, teachers, textbooks, facilities, and modern equipment—especially among marginalized communities.

Education policies have undermined better-performing private schools, as seen in the declining share in private school enrollment.²⁵ At the height of the pandemic, some private schools had to close due to low enrollment spurred by household income losses, and the exodus of private school teachers transferring to public schools. During school year (SY) 2020-2021, at the height of the pandemic, 656,712 learners transferred from private to public schools, which led to subsequent congestion in public schools. Meanwhile, in higher

education, there is lack of complementarity where state universities and colleges (SUC), local universities and colleges (LUC), and private higher education institutions (HEI) offer the same degree programs.²⁶ Teacher education needs improvement, given the consistently low passing rate in the licensure examination for teachers (LET). These deep-seated challenges have severely affected the learning conditions of students over the past generations. The pandemic brought to the fore the issues that have been piling up through decades of incapacity and suboptimal investment in education (only 3.9% of GDP in 2020).²⁷

The results are alarming as the World Bank estimates learning poverty rate in the Philippines at 90.9 percent.²⁸ This means that nine out of ten 10-year-old Filipino children are unable to read and understand a simple text. There are also students who remain non-readers even in high school.²⁹ The proportion of learners achieving at least “Proficient” level in the 2018 National Achievement Test at the third and sixth grade is at 6.39 percent and 12.63 percent, respectively. The country’s performance

in international large-scale assessments (i.e., Programme for International Student Assessment [PISA] and Trends in International Mathematics and Science Study [TIMSS]) revealed serious challenges in the sector, as the Philippines ranks the lowest overall among all countries assessed.³⁰ Inequalities persist at the secondary education level. At the tertiary level, only 42 percent of the 451,962 who applied for professional licenses in 2019 passed their respective licensure examinations. The number of examinees also went down to 120,768 in 2021 with a 48 percent passing rate. This brings into question the country's capacity to meet the industry demand for

quality human resources. The University of the Philippines, the national university, has fallen to the 801st to 1,000th ranking in the 2023 World University Rankings.³¹ It is one of only three Philippine universities ranked within the top 1,500 in the world from a total of 1,975 HEIs in the country.³²

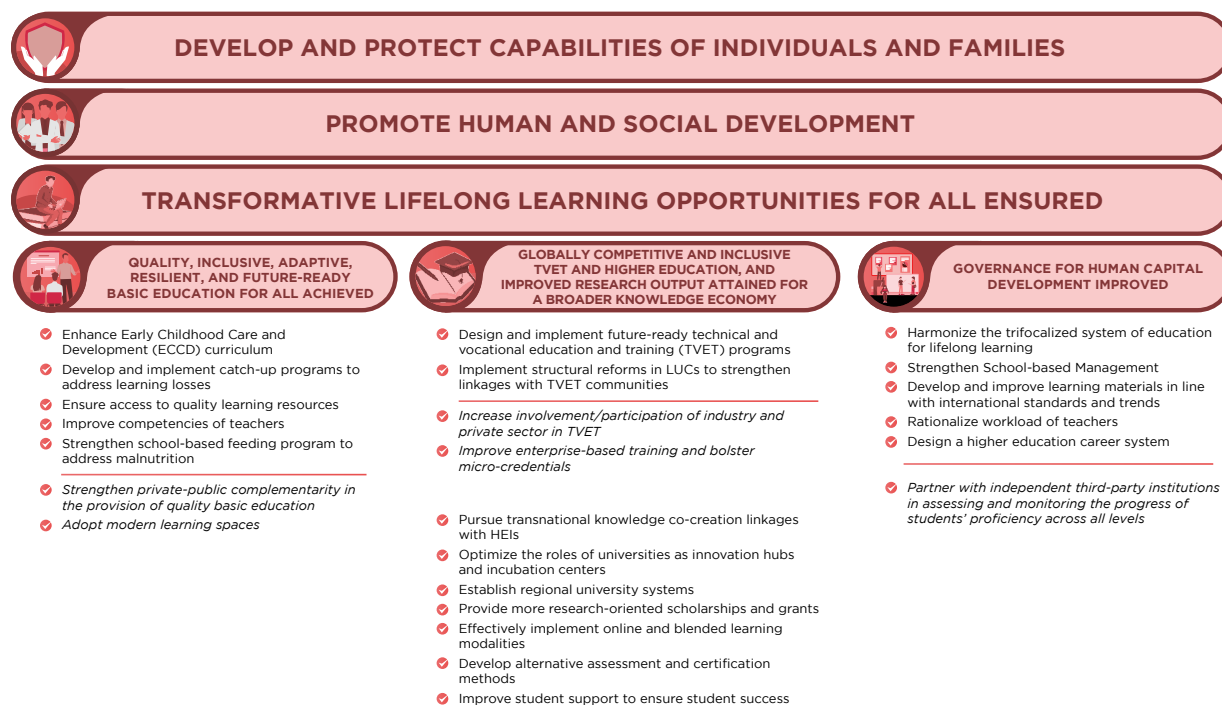
The time to transform the education system is now or the country risks missing out on the demographic dividend. This has become even more urgent with the learning losses brought about by the COVID-19 pandemic that are expected to result in lost productivity over the next decades if urgent action is not taken.

Strategy Framework

Toward the ultimate goal of ensuring transformative lifelong learning for all, several areas must be addressed not only by

the government, but more importantly, with the support of the private sector and other stakeholders.

Figure 2.2 Strategy Framework to Improve Education and Lifelong Learning



Strategies

Outcome 1: Quality, inclusive, adaptive, resilient, and future-ready basic education for all achieved

Enhance early childhood care and development curriculum

Early childhood care and development (ECCD) programs will be enriched by recalibrating the curriculum for preschool, focusing on the first 1,000 days of life. Partnerships between the ECCD Council and the National Nutrition Council will be institutionalized for the full implementation of *Kalusugan at Nutrisyon ng Mag-Nanay* Act (RA 11148). Barangay day care centers will be established in every barangay³³ to provide a conducive learning environment for preschoolers. Capacity building will be provided for day care workers and preschool teachers. Development of socioemotional skills and acquisition of healthy habits, such as good personal hygiene and eating nutritious food, will be emphasized to improve the resistance of learners to sickness and diseases.

Develop and implement catch-up programs to address learning losses

Catch-up programs will be promoted to reduce, if not reverse, the negative effects on educational outcomes of prolonged distance learning during the COVID-19 pandemic. Access to Alternative Learning System will be expanded by establishing additional community learning centers in municipalities and cities. The role of guidance counselors in encouraging the students to stay in school will be enhanced.

Ensure access to quality learning resources

The Department of Education (DepEd) and LGUs will ensure that all public school students have a full set of textbooks for their grade level and all teachers receive a full set of manuals. The National Education Portal (NEP) will be developed as the online repository for all quality-assessed learning materials for teachers and learners available for dissemination. Inclusive and interactive e-books with embedded videos, audio, and even sign language translations to attend to the needs of differently-abled children will be made available in the NEP. To respond better to class disruptions during emergency situations, self-learning modules shall be made available in print and digital form, in addition to the textbooks provided to schools. As a policy, the delivery of blended learning, utilizing both printed and digital resources will be promoted. The Special Education Fund will also be utilized to provide such learning resources.

Improve competencies of teachers

Training on the adoption of open educational resources, gamification of learning, and other new pedagogical practices will be implemented to enhance the competencies of teachers. Pre- and in-service training of teachers will be revisited to ensure that capacity-building programs are up-to-date, agile, and responsive to emerging skills and other needs. The Excellence in Teacher

Education Act (RA 11713) will be fully implemented. This law strengthens the Teacher Education Council, establishes scholarship for students in the teacher education program, and institutionalizes the National Educators' Academy of the Philippines as provider of quality professional development programs for in-service teachers, school leaders, and other teaching-related personnel in all public and private basic education institutions.

Strengthen the school-based feeding program to address malnutrition

Malnutrition-related cognitive impairments³⁴ will be reduced by promoting a regular diet of sufficient quantities and varieties of nutrient-dense food among children. With support from the LGUs, the school-based feeding program, including those of the barangay day care centers, will be improved and strengthened. This will be done according to the results of the assessments on its outcomes, especially in addressing malnutrition.

Strengthen private-public complementarity in the provision of quality basic education

The voucher system will be expanded to promote complementarity between the public and private education systems and provide students more options on which school to attend. Private investment in basic education will be encouraged to prevent overcrowding and stretching the resources of public schools. Government spending on education will be increased to four to six percent of GDP in line with the Education 2030 Framework for Action. Quality of basic education will be

improved by observing minimum standards of service delivery, such as maintaining ideal teacher-to-student ratio, providing adequate textbooks, and appropriately equipping libraries and laboratories, among others.

Adopt modern learning spaces

Additional learning spaces will be set up in partnership with education stakeholders in the private and voluntary sectors—including civil society organizations (CSO), individual volunteers, philanthropists, and development practitioners—to address the current shortage of roughly 91,000 classrooms. Learning continuity will be ensured amidst possible future disruptions through the use of information and communication technology. This includes augmented reality, virtual reality, and Internet of Things. Learning spaces will be designed, configured, and equipped to emulate the classroom of the future. Equipping libraries with online learning management systems will be initiated in collaboration with LGUs drawing from the Special Education Fund, and with partners from the private sector and civil society. Inclusive Learning Resource Centers (ILRC) for differently abled learners will be set up in all cities and municipalities pursuant to RA 11650 or otherwise known as the Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education Act. At the minimum, schools will be provided with water, sanitation, and hygiene facilities; electricity; and stable internet connectivity.

Outcome 2: Globally competitive and inclusive TVET and higher education, and improved research output attained for a broader knowledge economy

Design and implement future-ready TVET programs

Future-ready TVET programs will be designed and implemented to prepare trainees for the world of work, Fourth Industrial Revolution, and the global knowledge economy. Ladderized education programs will be promoted. Building on the gains of the enhanced science, technology, engineering, agriculture-fisheries, and mathematics (STEAM) strand, agri-entrepreneurship, tropical agriculture farming management, and modern agri-fisheries technologies will be included among the course offerings of technical-vocational institutes (TVI). The human resource complement of TVIs should also be scaled up and rightsized to ensure availability of trainers capable of implementing these new course offerings and pursuing wider clientele.

Implement structural reforms in local universities and colleges to strengthen linkages with TVET communities

LGUs, particularly their LUCs, and polytechnic institutions will be tapped to deliver TVET programs responsive to the needs of local communities and expand opportunities for adult learning. This will be supported by capacity building programs for LUCs in setting up, managing, and implementing TVET programs and establishing linkages in the communities. Provinces with high poverty incidence will be given priority.

Increase involvement/participation of industry and private sector in TVET

Industry participation in the design, development, implementation, and assessment of TVET programs will be intensified to respond to the needs of the national and international labor markets. Partnership with the private sector, particularly with critical industry players, will be built and strengthened through improving collaborative mechanisms. A customer relationship management system that will monitor existing and potential partners will be established³⁵ (See Chapter 4).

Improve enterprise-based training and bolster micro-credentials

Enterprise-based training (EBT) will be expanded and promoted as a dominant mode of TVET delivery to improve workforce employability. This will involve enhancing and promoting EBT programs—such as dual training systems, apprenticeship, and learnership—and strengthening the *Tulong Trabaho* Act (RA 11230). Additionally, existing laws and guidelines will be reviewed to modify funding of training programs, from incentives to direct subsidies, and streamline EBT procedures. This will be done to boost participation from the private sector, especially in manufacturing (See Chapter 4).

Pursue transnational knowledge co-creation linkages with higher education institutions

Public and private HEIs shall take an active part in transnational knowledge co-creation and research with their counterparts regionally and globally. The Transnational Higher Education Act (RA 11448) will be fully implemented to support the internationalization of Philippine HEIs. Additional mutual recognition agreements to facilitate the mobility of Filipino professionals within the Association of Southeast Asian Nations (ASEAN) countries and other countries and regions will be initiated (*See Chapters 4 and 7*). The higher education and TVET internationalization frameworks will be operationalized and implemented (*See Chapter 8*).

Optimize the roles of universities as innovation hubs and incubation centers

The government shall create a strong national environment for innovation and knowledge creation to promote participation in the knowledge-based global economy and advance research in higher education. This will give opportunities for aspiring researchers to receive startup support and ensure that research outputs are supported for patenting and commercialization within HEIs. This strategy shall be all-inclusive, allowing small niche institutions to take part and strengthen their potential to ensure that research capacity is disseminated across all regions beyond large urban centers (*See Chapter 8*).

Establish regional university systems

The integration of SUCs into regional university systems or specialized institutions will contribute to improved program delivery efficiency, reduce duplication, and foster complementarity between and among public and private HEIs. Various modalities of appropriate collaborative arrangements among SUCs shall be designed and implemented (e.g., research cooperation, faculty exchange, sharing of laboratory facilities, equipment, and other resources).

Provide more research-oriented scholarships and grants

To achieve the goal of a knowledge-based economy, the government will establish a strong national ecosystem for innovation and knowledge production. It will continue and expand the provision of scholarships, including grants-in-aid programs, to encourage graduate students, research staff, and faculty of HEIs to pursue basic and applied research (*See Chapter 8*).

Effectively implement online and blended learning modalities

The use of online and mixed learning modalities in higher education will be continued to promote learning continuity amidst possible future disruptions. Adult learning will be facilitated through the use of technologies such as online video-sharing platforms, learning management systems, and digital learning tools. Other options, such as television, radio, printed materials, and mobile training laboratories, will be made available in areas with limited internet connectivity. The development and

implementation of massive open online courses will be promoted as an optional mode of learning for students who have difficulty accessing traditional education.

Develop alternative assessment and certification methods

Standard assessment and certification methods may be ineffective in a distance learning setup. To evaluate student performance, identify skill gaps, and validate learned skills, alternative assessment and certification procedures—i.e., online assessment, micro-credentials, etc.—will be developed and institutionalized. The development of micro-credentials will be supported through the establishment of common standards that will ensure their quality, transparency, recognition, and international comparability (*See Chapter 4*).

Improve student support to ensure student success

Higher education institutions shall strengthen their student affairs and services programs in order to provide them a peaceful, safe, secure, and healthy learning environment. The student support systems of HEIs shall ensure that their students can effectively transition from graduation to employment or entrepreneurship. Furthermore, the implementation of the student internship in the Philippines and abroad shall be improved so that students are able to translate their theoretical learnings to practice. HEIs shall ensure that they will produce lifelong learners who are locally responsive, innovative, and globally competitive.

Outcome 3: Governance for human capital development improved

Harmonize the trifocalized system of education for lifelong learning

Having three distinct agencies (i.e., DepEd, CHED, and Technical Education and Skills Development Authority [TESDA]) focusing on basic education, higher education and TVET, the trifocalized education system shall be rationalized. Coordination and harmonization among the pillars of the human capital development sector (i.e., DepEd, CHED, TESDA, Department of Science and Technology, Professional Regulation Commission [PRC], Department of Information and Communications Technology, Department of Labor and Employment, Department of Trade and

Industry, and Department of Migrant Workers) shall be enhanced. The Philippine Qualifications Framework, Philippine Skills Framework, and ASEAN Qualification Reference Framework will be cascaded and promoted by the concerned agencies, especially DepEd, CHED, and TESDA. Qualification frameworks of other regions (e.g., European Qualifications Framework, Arab Qualifications Framework), especially regions with high job opportunities for Filipinos, will be given proper consideration. Partnerships with local and international institutions to enhance continuing professional development, career development support, credit transfer

schemes and pathways, and equivalency systems will be initiated to facilitate standards comparability and professional mobility (See Chapter 4).

Strengthen school-based management

Consistent with the overall thrust of local empowerment and decentralization, school-based management through the School Governing Council will be promoted to further deepen the link between the school and the community. School-based management grants of DepEd will be expanded and enhanced to augment funding for programs and projects that are more responsive in catering to the specific needs of individual schools.

Develop and improve learning materials in line with international standards and trends

Learning materials shall be continuously updated and improved based on recent trends in international education frameworks and standards (e.g., promotion of civic education, Education for Sustainable Development, and global citizenship education with emphasis on human rights, gender equality and social inclusion, environmental sustainability, and social justice in the curriculum). The aligned competencies of systems thinking, anticipatory thinking, normative competence, strategic competence, and interpersonal competence will be the focus of curriculum and pedagogical development. SUCs and HEIs shall be utilized in developing learning materials that adopt new pedagogical practices across all levels. Continuous evaluation and updating of school textbooks shall be given specific attention. Appropriate

approaches shall be used in developing mother tongue-based learning materials and will be piloted, assessed, and evaluated in selected schools.

Rationalize workload of teachers

The workload of teachers will be reviewed to enable them to focus on teaching rather than preparing routine reports, performing administrative tasks, and being utilized by other agencies for program implementation as frontline government personnel. Teachers shall focus more on addressing the learning losses, coping with the new pedagogical practices, and enhancing their competencies through participation in capacity building interventions in accordance with international standards. The human resources complement of schools and other education institutions will be restructured (i.e., hiring more administrative and other non-teaching staff) to ensure effective and efficient service delivery without putting undue burden on the teachers.

Design a higher education career system

A higher education career system will be designed and implemented for individuals occupying leadership positions in HEIs. This will entail capacity building interventions on leadership and technical skills needed for their positions. The career system shall create a roster of qualified candidates for university presidents that have competencies at par with national and international standards while insulating them from political partisanship.

Partner with independent third-party institutions in assessing and monitoring the progress of students' proficiency across all levels

Independent third-party organizations will be tapped to guarantee objective assessments of students' competencies at all education levels.

Students shall undergo a regular assessment that will be monitored and compared over time. The results of these assessments will serve as the foundation for developing more effective instructional strategies and interventions.

Legislative Agenda

Table 2.2.1 presents legislative measures for consideration by Congress.

Table 2.2.1 Legislative Agenda to Ensure Lifelong Learning Opportunities for All

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Review of the Country's Basic Education System toward Improving the Enhanced Basic Education Act of 2013	The proposed law seeks to revisit the K-12 curriculum to make the graduates more readily employable, better equipped with critical thinking and problem-solving skills, and imbued with the skills and capacities needed to be productive and active citizens of the country.	Department of Education (DepEd)
Expansion of the National Feeding Program in secondary schools	The proposed law addresses what is identified as among the biggest problems of the student population by expanding the coverage of the School-Based Feeding Program, as mandated by RA 11037, to include learners from Grades 7 to 12 to ensure that proper government interventions are in place for the youth in their formative and adolescent years.	DepEd, National Nutrition Council
Expansion of the Government Assistance to Students and Teachers in Private Education (GASTPE) to Elementary Level	In recognition of the complementary role of the private schools in providing basic education to Filipino learners, the measure aims to expand the existing government assistance for high school students and teachers in private education to include students in private schools in the kindergarten up to Grade 6 level. The Teacher Salary Subsidy is also proposed to be expanded to cover teachers employed in private elementary schools.	DepEd
Strengthening of the Technical and Vocational Education and Training (TVET) in the Philippines by incorporating Apprenticeship and Dual Training System, providing for Continuous Training of the Unemployed, and Expanding the Provision of Enterprise-Based Education and Training	This proposed measure aims to incorporate the existing programs under the "Enterprise-Based Training Program" administered by the Technical Education and Skills Development Authority (TESDA) and expand the provision of training programs being implemented within companies. The program can be a mix of workplace training and classroom-based learning. Strengthening partnerships among local universities and colleges, TESDA, and TVET institutions are suggested to be highlighted to ensure that programs will cater to community needs and priorities, including agri-entrepreneurship.	TESDA
Key legislations improving education infrastructure <i>(See Chapter 12)</i> , reviving the Mandatory Reserve Officers Training Corps and/or integrating disaster risk response and management training in the curriculum of students <i>(See Chapter 13)</i> , promoting upskilling and reskilling of labor force <i>(See Chapter 4)</i> , and advancing R&D and innovation <i>(See Chapter 8)</i> .		DepEd, Commission on Higher Education, TESDA

Also important for ensuring lifelong learning opportunities are key legislations

improving education infrastructure *(See Chapter 12)*, reviving the Mandatory Reserve

Officers Training Corps and/or integrating disaster risk response and management training in the curriculum of students (See Chapter 13), promoting upskilling and

reskilling of labor force (See Chapter 4), and advancing research and development and innovation (See Chapter 8).

Results Matrix

Table 2.2.2 presents indicators and targets for lifelong learning opportunities.

Table 2.2.2 Results Matrix: Ensure Lifelong Learning Opportunities for All

Indicator	Baseline (2021)	Annual Plan Targets						Means of Verification	Responsible Agency/ Inter-Agency Body
		2023	2024	2025	2026	2027	2028		
Subchapter 2.2 Improved Education and Lifelong Learning									
1. Learning poverty rate (%)	90.9 (2019)	Decreasing						International Large-Scale Assessment results, World Bank report	Department of Education (DepEd)
2. Proportion of learners achieving at least "Proficient" in the National Achievement Test (NAT) (%)								NAT Results, Learner Information System, Enhanced Basic Education Information System	DepEd
2.1 Reading									
Grade 3	56.0 (2018)	63.4	66.2	68.90	71.7	74.40	77.2		
Grade 6	17.7 (2018)	32.9	40.2	47.6	54.9	62.2	69.5		
Grade 10	36.4 (2018)	43.2	49.2	55.2	61.2	67.2	73.2		
Grade 12	24.0 (2018)	34.0	39.0	44.0	49.0	54.0	59.0		
2.2 Mathematics									
Grade 3	27.1 (2018)	36.0	42.0	48.0	54.0	60.0	66.0		
Grade 6	17.6 (2018)	31.4	38.4	45.4	52.4	59.4	66.4		
Grade 10	13.1 (2018)	30.4	38.4	46.3	54.1	61.8	69.6		
Grade 12	2.8 (2018)	18.0	23.0	28.0	33.0	38.0	43.0		
3. Participation Rate of 0–4.11 Years Old in Early Learning Programs (%)	16.0 (2018) *2018 has the highest encoding rate by local government units (LGUs); succeeding years have lower submission rates	23.0	28.0	33.0	43.0	53.0	63.0	Early Childhood Care and Development (ECCD) Information System, National Child Development Center Enrollment Tracking and Information System, National ECCD Monitoring Evaluation and Accountability System (will be fully utilized during the 2nd term of the Philippine Development Plan)	ECCD Council

INDICATOR	BASELINE (2021)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
4. Licensure examination passing rate									
4.1 Licensure examination for teachers (LET) (%)								LET results	Commission on Higher Education (CHED), Professional Regulation Commission (PRC)
4.1.1 Elementary	52.36	54	56	58	60	62	64		
4.1.2 Secondary	51.13	53	55	57	59	61	63		
4.2 Licensure examination across all disciplines (%)								Licensure examination results	CHED, PRC
4.2.1 Overall takers	38.8 (2019)	40	42	44	46	48	50		
4.2.2 First-time takers	57 (2019)	59	61	63	65	67	69		
5. Global competitiveness of Philippine higher education institutions (HEI)									
5.1 Number of HEIs in reputable international rankings increased	21	22	24	25	27	28	30	Quacquarelli Symonds Asia rankings, Times Higher Education, World University Rankings, Impact Ranking, or other ranking systems identified by CHED	CHED
6. Technical Education and Skills Development Authority (TESDA) Certification Rate (%)	92	92	92.5	93	93.5	94	94.5	TESDA Management Information System	TESDA

Subchapter 2.3 Establish Livable Communities

Livable communities are established and support the AmBisyon Natin 2040 aspiration of Filipinos for a strongly rooted, comfortable, and secure life. Establishing livable communities aims to upgrade and plan human settlements in a way that offers equitable, inclusive, and resilient opportunities for the improvement of human well-being while contributing to the economic vitality of the community.³⁶ Pursuing livable communities will adopt an integrated use of space that will bring people closer to work, recreation, and transit options. This will improve the quality of life and attract businesses, transforming these areas economic centers, whether they are urban or rural.

Assessment and Challenges

This assessment focuses on representative elements of livability—social development, community participation, resilience, environmental quality, and housing.

COVID-19 impeded delivery of social development services and adversely affected livelihoods of poor communities.

The COVID-19 pandemic exacerbated pre-existing issues of poverty and inequality. These include challenges in access to basic services (health, education, food and nutrition, and water and sanitation), employment, livelihood, transport and accessibility, security of tenure and housing spaces, and access to open and green spaces. Delivery of health, nutrition, education, social protection, basic infrastructure, and other social services was slowed down by the pandemic. Although this impacted all sectors of the population, the poor were disproportionately affected.³⁷ (See Subchapters 2.1, 2.2, and 3.2 and Chapters 4, 5, and 13)

Lack of income opportunities and reduction of pay were pre-existing challenges faced by poor communities. However, these had worsened significantly due to the pandemic.³⁸

Civil society representation in local special bodies needs to be improved.

Only about 50 percent of barangays have CSO representation in the barangay development councils. Moreover, only 14,000 barangay-based non-government organizations were accredited. Some LGUs have not fully implemented the DILG Memorandum Circular 2021-054 on the creation of their CSO desks and people's councils, which are mechanisms to encourage more community participation in local governance.

Mixed progress in building community resilience.

The Philippines is among the most vulnerable countries to disasters, ranking first in the 2022 World Risk Index³⁹ and 34th among 191 in the 2023 Index for Risk Management (INFORM) risk index.⁴⁰ Disasters and climate change already affect poor communities and are likely to do so more severely in the future without the proper policies in place. Although substantial progress was made with respect to the coverage of the population by early warning information through local governments or national dissemination mechanisms, the number of deaths attributed to disasters

remain high at 12.51 per 100,000 population in 2020 and 52.69 in 2021. The number of people whose dwellings were destroyed by disasters reached 355,070 in 2020, which is almost two times greater than that of 2018.

Capacity constraints at the local level continue to impede effective solid and hazardous waste management. In 2022, 1,171 out of 1,592 municipalities and cities had an approved 10-year Solid Waste Management (SWM) Plan, as reported by the Department of Environment and Natural Resources (DENR), and around 316⁴¹ LGUs adopted ordinances that regulate single-use plastic. However, the implementation of these plans and policies has been hampered by the absence of dedicated environment and natural resource officers in LGUs and limited technical and financial capacity to establish and maintain treatment, storage, and disposal facilities. In 2021, DENR reported that only 39 percent of barangays utilize material recovery facilities and only 29 percent have secured access to sanitary landfill facilities (SLF). Diversion of solid waste has also been low, even in Metro Manila, at a rate of 54 percent in 2021.

Several policies and initiatives have been implemented in recent years considering the growing waste problem. The National Solid Waste Management Commission adopted resolutions banning the use of plastic products (i.e., softdrink straws and plastic stirrers) in government offices. At the height of the COVID-19 pandemic, DENR issued guidelines for waste generators (e.g., health care facilities and LGUs), transporters, and treatment facilities on managing highly infectious wastes. The Department of Science and Technology has also been proactively

generating scientific information on the economic and life cycle of specific single-use plastic vis-à-vis alternatives to help in crafting responsive policies. The Extended Producer Responsibility (EPR) Act, National Plan of Action on Marine Litter, and the Philippine Action Plan for Sustainable Consumption and Production likewise offer promising opportunities for the country to reduce waste and facilitate the shift toward sustainable and climate-smart practices and lifestyles.

Quality of monitored water bodies remains low. There have been a number of notable programs implemented to improve water quality (e.g., “adopt-an-estero,” Boracay and Manila Bay rehabilitation, coastal cleanup, and improvement of wastewater infrastructure). Yet, in 2021, priority water bodies for public water supply, food production, and recreation still constantly exceeded guideline values for fecal coliform. Increasing levels of fecal coliform, which is an indicator of the presence of pathogens, can be attributed to inadequate treatment facilities and the absence of measures to address point (i.e., domestic wastewater), and non-point (i.e., agricultural runoff) sources of water pollution.

Improvement in ambient air quality remains hampered by poor monitoring and rising emissions from the transport sector. A complete assessment of ambient air quality could not be conducted due to obsolescence and wear and tear of monitoring instruments, impeding effective planning and management. In 2021, only 11 of the 38 highly urbanized cities (HUC) monitored had complete air quality data. Mobile sources continue to be the biggest contributor of urban air pollution at 74 percent. To

address this, the government initiated the development and incubation of new technologies for monitoring air pollutants, and pursued initiatives such as strengthening of motor vehicle inspection, improving mass transport, institutionalizing the promotion of e-vehicles through passing the Electric Vehicle Industry Development Act, and providing the necessary infrastructure to enable active mobility (*See Chapter 12*).

Unmet housing needs. About 66 percent of the 1.6 million direct housing assistance target of the government for the period 2017–2022 was accomplished. Targets were relatively low compared to the 3.7 million informal settler families (ISF) that do not have security of tenure as of 2021. Moreover, the housing need estimates have accumulated to 6.8 million in 2017–2022. Housing backlog persists in the socialized segment due to affordability issues. Only around 96,269 socialized housing units were approved or demanded in 2017–2020, which is indicative of unaffordability. From 2001 to 2018, around 10.16 percent of the housing supply has gone to the socialized segment, and the shares have

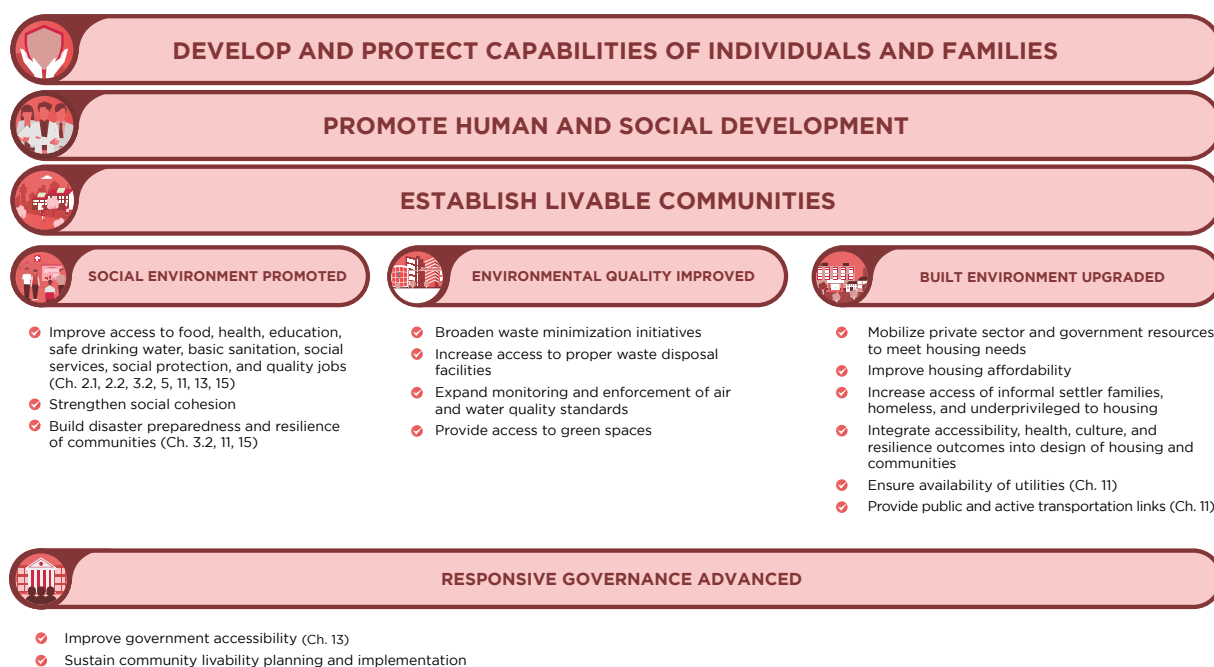
been decreasing.⁴² Housing production faced major challenges in terms of low allocation and utilization of funding, lack of suitable land, and delays in permits and clearances. The National Housing Authority (NHA), the government's housing production arm, has a mean budget utilization rate (BUR) of 61.38 percent from 2016 to 2022, which was at 19.13 percent in 2019 due to institutional bottlenecks; and 23.03 percent in 2020 due mainly to the COVID-19 pandemic. Housing backlog is further compounded by damage caused by natural hazard events. Almost half a million dwellings or houses were damaged due to disasters from 2016 to 2021.⁴³ The impact of disasters on housing, along with the lessons from COVID-19, underline the need to revisit requirements on location, design standards, and open spaces⁴⁴ to address public health risks, build resilience to disasters, and improve the livability of human settlements. Strengthening public rental housing as an option for those who cannot afford homeownership is required to address the large deficit in housing units, fiscal challenges to meet resource requirements for housing production, low absorptive capacity of NHA, and ownership affordability issues.

Strategy Framework

The livability of communities shall be pursued along three outcomes: social environment promoted, environmental quality improved, and built environment upgraded (*See Figure 2.3*). These will be guided by the principles of equity, inclusivity, resilience, and sustainability. Promoting the social environment gives priority to the needs of residents for food, health, education, social protection, and quality jobs. It will build a strong sense of community among individuals and families. Improving

the quality of the natural environment allows communities to thrive in a clean environment and access green and public spaces. Upgrading the built environment helps ensure that appropriate housing is connected to utilities and linked to social, economic, and recreational spaces by public and active transportation. All three outcomes will be supported by a governance system that is accessible and ensures that livability of communities is sustained.

Figure 2.3 Strategy Framework to Establish Livable Communities



Strategies

Outcome 1: Social environment promoted

Improve access to food, health, education, safe drinking water, basic sanitation, social services, social protection, and quality jobs

Fulfilling fundamental human needs of each member of the community shall be a priority. Access to food, health, education, safe drinking water, basic sanitation, social services, social protection, and quality jobs shall be improved. Communities shall benefit from national programs to scale up quality job creation such as upskilling to increase employability and increased opportunities in agriculture and agribusiness, industries, services, and sustainable resource-based livelihoods (*See Subchapters 2.1, 2.2, and 13.1 and Chapters 3, 4, 5, 6, 7, and 15*).

Strengthen social cohesion

Social cohesion shall be strengthened to broaden community participation, secure community safety, ensure gender- and culture-responsive interventions, and promote the welfare of and prevent acts of violence against vulnerable groups including women; children; elderly; lesbian, gay, bisexual, transgender or transsexual, queer or questioning, intersex, and allied, asexual, aromantic, or agender (LGBTQIA); as well as indigenous peoples (IP), among others.

Communities shall be empowered to create or join CSOs. They have long been one of the government's partners in enabling services in communities. CSO desks shall be created in LGUs to fast-track accreditation of CSOs and selection of representatives to local special bodies (*See Chapter 13*).

Communities shall also be encouraged to participate in cultural, recreational, and sports activities. Local culture and arts councils will be promoted to plan and implement conservation and preservation of cultural property and conduct cultural activities. A strong national grassroots program will be institutionalized by the Philippine Sports Commission on community-driven sporting and recreational activities in line with its mandate to set the priorities and direction of a national sports agenda, giving emphasis to grassroots participation.

Community safety from crimes and violence shall be ensured through the involvement of the youth and community members in organized sports, recreational activities, and volunteer opportunities. Substance abuse shall be treated as a health problem (*See Subchapter 2.1*) while illegal trade of these goods shall be prosecuted as part of the endeavors to remove criminality in the community. Overall, collaboration of communities, LGUs, businesses, civil society, and other sectors shall be strengthened to achieve peace, security, and safety, while being mindful of the contexts and needs of vulnerable groups (*See Subchapter 13.1*).

Build disaster preparedness and resilience of communities

The government will raise awareness, knowledge, and skills of individuals, families, enterprises, and other community stakeholders on the hazards that their community faces. This will build resilience through community-based disaster risk management and preparedness measures. The primary step is to capacitate and empower all community members to be prepared and take action to protect lives, livelihood, and assets from multiple types of disasters—

hydro-meteorological, geological, human-induced, and public health emergencies. This should be a continuing process as livable communities may attract migrants who may not be as familiar as the other community members on hazards and risks in the community. Individual, family, and community preparedness will be supported by complementary and integrated actions at all government levels on early warning systems, preemptive evacuation protocols, and provision of permanent evacuation centers to limit or totally avoid the use of school facilities for evacuation. Local governments shall continue to organize and capacitate community volunteers to become frontliners in disaster response, especially for the vulnerable groups and those located in far-flung areas. The Local Disaster Risk Reduction and Management Plan and the Local Climate Change Action Plan shall incorporate community programs and projects to build adaptive and other resilience capacities, and reduce risks from hazards and climate change. The Post-Disaster Rehabilitation and Recovery Framework shall be operationalized to ensure full recovery of households and communities affected by disasters.

National government shall prioritize highly vulnerable, low-income LGUs to access national programs and funds for disaster risk reduction, climate change adaptation, and disaster preparedness. These include flood control, coastal protection, early warning systems, operations center, permanent evacuation centers, critical infrastructure and facilities, and climate-resilient livelihood, among others (*See Chapters 11 and 15*).

Outcome 2: Environmental quality improved

Broaden waste minimization initiatives

Waste minimization shall involve ensuring compliance and steering behavioral change at the individual, household, and societal levels toward sustainable production and consumption practices. Compliance with the Ecological Solid Waste Management Act (RA 9003), which mandates LGUs to divert more than 25 percent of solid wastes from waste disposal facilities, shall be pursued. Waste recycling and other recovery programs—such as community composting and recovery of rare metals from waste electrical and electronic equipment (urban mining) programs—will be intensified to improve resource efficiency and promote a circular economy. This shall enable public and private investments (e.g., development of green technologies and establishment of facilities) in waste recovery, reuse, and recycling as well as manufacturing and production using secondary raw materials (*See Chapter 6*). The reclamation of rare materials from e-waste as raw materials for renewable energy technologies will likewise be promoted (*See Chapter 12*). The implementation of the EPR Act of 2022 will require private companies, particularly large enterprises, to initiate their EPR programs to minimize waste from plastic packaging. Their EPR programs will incorporate waste minimization strategies such as product packaging redesign, adoption of production refilling systems, and use of alternative materials in products. Moreover, the implementation of the National Action Plan on Marine Litter shall be monitored and pave the way to promote and mainstream

circular economy and stimulate sustainable consumption and production. Environmental information, education, and communication programs will also be intensified using traditional and social media, school-based campaigns, and government social development and grassroots programs to help steer the desired behavioral change.

Increase access to proper waste disposal facilities

Solid, organic, and health care and hazardous wastes will be effectively managed to prevent possible adverse health, economic, and environmental impacts in communities. The delivery of waste management services by LGUs will be increased, making proper waste disposal accessible to a larger population base. The approval of SWM plans will also be fast-tracked. A web-based monitoring system will be established to track progress and compliance by LGUs with solid waste regulations, including their waste diversion mandate. DENR will continue to build the capacity of LGUs through trainings, guidelines, implementation mechanisms, and technology transfer, among others. To take advantage of economies of scale, LGU clustering shall be facilitated in the implementation of appropriate common facilities—including material recovery facilities, SLFs, and facilities for health care and hazardous wastes, among others. Innovation, research and development, technology development, and science-based policy recommendations shall be promoted. For example, the viability of waste-to-energy technologies will continue to be studied and the appropriate environmental regulatory framework will be put in place.

Expand monitoring and enforcement of air and water quality standards

An integrated water resource management approach to address water pollution shall be adopted. Operationalization of water quality management areas shall be prioritized, and the national water quality management fund shall be accessed to improve capabilities in monitoring and enforcement of applicable laws. The environmental user fee system shall be expanded to cover non-point pollution sources. Multi-stakeholder initiatives to improve water quality, such as massive clean-up, monitoring of industries, and rehabilitation of *esteros* or rivers, shall continue to be implemented. Inter-LGU collaboration on clean-up of shared river ecosystems shall be pursued. The adopt-an-*estero* program shall be institutionalized at the barangay level. More LGUs shall enact septage management ordinances to prevent untreated sewage from contaminating water bodies as directed by DILG MC 2019-62.

Moreover, ambient air quality monitoring and enforcement of standards shall be improved. This will require upgrading of monitoring systems, including the use of space technology. To expand coverage of monitoring, partnerships with private stakeholders and HUCs shall be pursued in setting up ambient air monitoring stations and through outsourcing from private service providers. Monitoring results shall guide Monitoring Airshed Governing Boards and concerned LGUs to implement action plans to improve air quality. Attention will be given to indoor air and noise pollution due to the negative impact on health and productivity.

The government will explore the development or improvement of policies to ensure healthy levels of environmental noise and indoor air quality in the workplace and in households.

Provide access to green spaces

As envisioned in the Philippine Biodiversity Strategy and Action Plan 2015–2028, increasing green spaces at the city and barangay levels will enhance environmental quality, reduce urban heat, promote biodiversity, and improve health and overall wellbeing. Increased awareness, understanding, and appreciation of local communities and other stakeholders on the importance of green spaces shall be pursued and individual actions on urban greening will be encouraged. The “adopt-a-city” approach shall be piloted to encourage the business sector to support creating green spaces. Good practices shall be replicated in more LGUs. Technical assistance will be provided, and financial resources will be accessed by LGUs that will enable them to establish green spaces (e.g., Urban Biodiversity Program, National Greening Program, and Green, Green, Green Program). LGUs shall include in their respective environmental codes design standards for the development of green spaces. Moreover, urban farming and community-based gardening will be intensified to expand green urban spaces and contribute to ensuring food security (See *Subchapter 3.1*). Programs and interventions of LGUs on developing green spaces will be considered as part of the performance criteria in the DILG’s Seal of Good Local Governance.

Outcome 3: Built environment upgraded

Mobilize private sector and government resources to meet housing needs

The Department of Human Settlements and Urban Development (DHSUD) targets the financing of one million housing units annually to narrow the housing deficit. This will require the mobilization of substantial financial resources from national and local governments, as well as government financing institutions and private banks, with whom the government will engage to increase their participation in the housing sector through their development loans, homeowners lending programs, and real estate mortgages. Availment of fiscal incentives under the Urban Development and Housing Act (RA 7279) shall be facilitated to encourage more private sector participation in socialized housing. Allocation of funds to key shelter agencies (KSA) (e.g., NHA, Social Housing Finance Corporation, and the National Home Mortgage Finance Corporation [NHMFC]) will be rationalized to ensure that increased allocation is matched with increased absorptive capacities. The secondary mortgage market program of the NHMFC shall be strengthened and the housing credit guarantee programs of the Philippine Guarantee Corporation shall be enhanced. LGUs shall tap financing schemes available to them such as bond flotation and credit financing to raise funds for housing. The implementation of the Balanced Housing Development Act, which mandates developers proposing to undertake a subdivision or condominium project to develop an area for socialized

housing, shall be revisited. This is to ensure that the guidelines for accessing the funds and monitoring the allocation and use of the Housing Escrow Fund will be in place to ensure that the funds will not be underutilized or misused. The Housing Escrow Fund is authorized through DHSUD Department Order 2021-004 and is a fund pool comprised of contributions by developers who opt to comply with mandated balanced housing requirement via the incentivized compliance.

Apart from mobilizing financial resources, other factors affecting the delivery of housing targets need to be addressed as well. This includes the availability of land, construction materials, and workers. DHSUD shall develop a human resources skills program to meet housing production needs.

Improve housing affordability

Subsidies in the form of mortgage financing, direct housing production, and community-driven development will be continued to ensure housing affordability. Additional subsidies for ISFs will be studied to improve affordability of housing for this segment of the population.

Rental subsidy will be an option for low-income ISFs and starting families, or as support for families that may be temporarily displaced by calamities or those permanently displaced by infrastructure programs. Other forms of tenure will also be explored to address uncertainties and make public housing rental viable.

Increase access of informal settler families, homeless, and underprivileged to housing

An inventory on the number of ISFs and the homeless will be undertaken, and an information database system shall be established. Idle government lands will be completely inventoried and a database established to identify potential resettlement sites for informal settlers. On-site, in-city, and near-city resettlement programs shall be adopted. Given issues on land availability, vertical housing for ISFs in metropolitan areas and HUCs shall be an option.

The government may provide halfway homes or dormitories for the homeless who cannot afford formal housing tenures, such as homeownership or rental housing. The resettlement option will be provided for ISFs living in danger zones while the community mortgage program will be an option for the rest of the ISFs with community organizations. The government shall continue programs that specifically cater to certain sectors—such as the police, military personnel, and public-school teachers—and expand to vulnerable sectors, such as low-income women, IPs, indigent elderly, and people with disability.

The National Resettlement Policy Framework shall be operationalized in local resettlement plans and programs to ensure that resettlement communities are livable and livelihood are restored.

Integrate accessibility, health, culture, and resilience outcomes into design of housing and communities

The socialized and economic housing standards (*Batas Pambansa* 220) shall be reviewed to consider minimum health standards; accessibility; cultural appropriateness; climate and disaster resilience; energy efficiency; green spaces; active mobility; innovative technologies; urbanization trends; and changing housing preferences (i.e., halfway homes, first-time homebuyers, young professionals, and permanent family homes). The implementation of open spaces such as parks, playgrounds, and community facilities and amenities⁴⁵ shall be strictly enforced, which could likewise be used as green spaces.

Green features in housing and community design shall be adopted—such as renewable energy, green roofs, rainwater harvesting systems, rain gardens, permeable pavement, green construction materials, nature-based storm drainage systems, gray water recycling system, and energy-efficient windows (with reference to the Green Building Code).

Road systems shall be designed to provide safe routes in time of emergencies, ample drainage, and sufficient allocation for motorized vehicles, bicycles, and pedestrian uses.

Ensure availability of utilities

Improvements in building and construction milestones shall be instituted to ensure that utilities (water, electricity, telecommunications, and sanitation) are available ahead of occupancy. The

government shall evaluate the effectiveness of its programs in accelerating access to water supply and sanitation services, especially in poor and waterless municipalities. The government shall also encourage the operation of water service providers as economic enterprises run by LGUs and/or with private partners (*See Chapter 12*).

Provide public and active transportation links

Sustainable and affordable transportation options shall be provided to link communities to economic, social, and cultural places. These include the strengthening of the existing

public utility vehicle modernization program, and expansion of existing mass transport systems and networks. LGUs shall integrate in their land use plans and infrastructure program the allocation and development of local road networks that adopt active mobility options, such as walking and cycling. LGUs shall also reflect in their local public transport route plans the transit options for their communities and adopt mechanisms to offset the impact of increased transportation costs arising from relocation. LGUs shall adopt the use of e-vehicles supported by solar-powered charging stations to service communities (*See Chapter 12*).

Box 2.3. Affordable and Secure Housing in a Livable Community: *Disiplina* Village, Valenzuela City

Disiplina Village is the biggest in-city relocation program in the Philippines. *Disiplina* Village is a public rental housing program in Valenzuela City, Metro Manila, offering perpetual lease in medium-rise buildings constructed by the National Housing Authority (NHA). The resettlement area accommodated a total of 3,186 families as beneficiaries. The city government owns the 11.13-hectare land. NHA investment is at PHP1.12 billion. The LGU heads the *Disiplina* Village Management Council with the president of the Homeowners' Association of *Disiplina* Village as one of the members. Day-to-day concerns and monitoring of the buildings are taken care of by a designated flood leader and building leader, who also liaise with the City Housing and Resettlement Office and the NHA.

The beneficiaries maintained their dwellings in-city where they were provided with access to social services, economic opportunities, and sports and recreational activities from the presence of community facilities such as schools, day care centers, covered courts, parks and playgrounds, multipurpose buildings, urban gardens, markets, and public terminals. More importantly, beneficiaries enjoy security of tenure formalized through their Certificate of Occupancy.

Source: Pantawid Upa. 2019. *Rental Housing Subsidy: Experiences and Lessons in the Philippines*. Manila.

Outcome 4: Responsive governance advanced

Improve government accessibility

LGUs shall use the national digitalization platform, aligning with digitalization programs of national government agencies (e.g., digitalization of business processes), and adopt digital governance. This shall provide better information and service delivery, including early warnings; improve transparency in local government processes, such as housing-related licenses and permits; and facilitate participation and communication (*See Chapters 11 and 13*). LGUs shall likewise strengthen the digital skills of their respective constituents.

Sustain community livability planning and implementation

Community-driven planning for the livability of communities shall be sustained. The People's Plan adopted for on-site, in-city, and near city resettlement programs to address the urban sprawl shall be broadened to improve livability elements.⁴⁶

Participation of LGUs in planning, financing, and implementation of housing and community programs shall be accelerated. LGUs shall make an inventory of their publicly owned land and utilize vacant, underutilized, and non-essential properties available for housing development. If necessary, the LGUs may consolidate multiple government buildings to free up land for housing. Local housing boards shall be created or strengthened to support the LGUs' city- or municipality-wide community upgrading strategy.

The comprehensive land use plan (CLUP) shall help shape the livability of communities while ensuring that sectoral concerns—such as ancestral lands, cultural heritage, and biodiversity—are preserved. Mixed-use as well as integrated use of space that offer the convenience of walkable, bikeable, compact, and connected communities to reduce travel time and energy footprint shall be promoted.

Zoning ordinances should be able to influence, for example, the way roads are designed to accommodate infrastructure for active mobility. Climate and disaster risk assessment shall be made a prerequisite in the approval of areas identified for housing and community development.

Moreover, due to potential degradation or irreversible damage to the natural environment, carrying capacity assessments will be conducted in areas where population movement needs to be managed, such as ecotourism destination areas and urban areas. Such assessments shall inform appropriate policies and regulations in local plans (e.g., CLUP and Comprehensive Development Plan). These assessments may also be guided by existing manuals developed by the government (i.e., Manual on the Conduct of Urban Carrying Capacity Assessment in the Philippines by the National Economic and Development Authority [NEDA] and Manual on Computing Carrying Capacity of Ecotourism Sites in Protected Areas by DENR).

As more livable communities are built, strong interlocal connections will result

in agglomeration into metropolitan areas. Governance of these metropolitan areas will need to be put in place, building upon the good practices and lessons from existing metropolitan governance models (e.g., Metro Manila, Metro Cebu, and Metro Iloilo-Guimaras Economic Development Council).

Planning the livability of communities shall be linked with national housing and urban development, and regional spatial development policies, which promote urban–rural linkages to address transboundary risks, among others. The National Urban Development and Housing Framework and the National Spatial Strategy shall be updated to consider emerging trends in green and resilient development and promote multisectoral needs (e.g., housing, transport, telecommunications, and public works) for urban and regional development.

Sustained community livability planning shall be monitored and incentivized. DHSUD shall establish a comprehensive housing and

urban development monitoring information system. The passage of the DHSUD Act provided an impetus to integrate all housing and urban development policies, plans, programs, and projects. DHSUD is mandated to develop and maintain a shelter and urban development management, standards, and monitoring information system which shall include, but not limited to, the following data sets: inventory of idle lands, CLUP, inventory of housing stock, and list of beneficiaries. DHSUD’s role, as oversight to housing and urban development-related policies and programs, requires data collection, processing, and analysis to assess the effectiveness of policies and programs. Meanwhile, NEDA shall develop standards to measure livability—such as travel time and distance between housing sites and schools and access to health facilities. These may be used in developing a livability index along with applicable indicators in DILG’s Seal of Good Local Governance and DHSUD’s monitoring information system to incentivize LGU initiatives.

Legislative Agenda

Table 2.3.1 presents the priority legislation proposed in the 18th Philippine Congress.

Table 2.3.1 Legislative Agenda to Establish Livable Communities

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
National Land Use Bill	Address suitable land availability constraints for housing development by legislating options such as removing the Comprehensive Agrarian Reform Program (CARP) restrictions to land consolidation while maintaining land ownership by beneficiaries, completing inventory of protected areas to ascertain land for development, and tapping idle or unutilized private lands.	Department of Human Settlements and Urban Development (DHSUD)
Rental subsidy and access to public rental housing	Improve access to and affordability of housing especially for the informal settler families, homeless, and underprivileged.	DHSUD
Strengthening of KSAs a. National Housing Authority Act - Renew the NHA Charter and strengthen its organizational structure and functions b. Amendments to the NHMFC Charter - Broaden mandate to allow securitization not only of mortgages but also of other housing-related receivables or loans resulting in increased funds available for housing development	Renew the NHA Charter and strengthen its organizational structure and functions. Broaden mandate to allow securitization not only of mortgages but also of other housing-related receivables or loans resulting in increased funds available for housing development.	DHSUD
Unnecessary Plastic Products Regulation Bill	Phase out single-use plastic.	Department of Environment and Natural Resources (DENR)
Maritime Safety, Security, and Prevention of Ship-Sourced Pollution Bill	Prevent and control marine pollution from any vessel.	Philippine Coast Guard, DENR, Department of Science and Technology

Results Matrix

Table 2.3.2 presents the indicators and targets to establish livable communities.

Table 2.3.2 Results Matrix: Establish Livable Communities

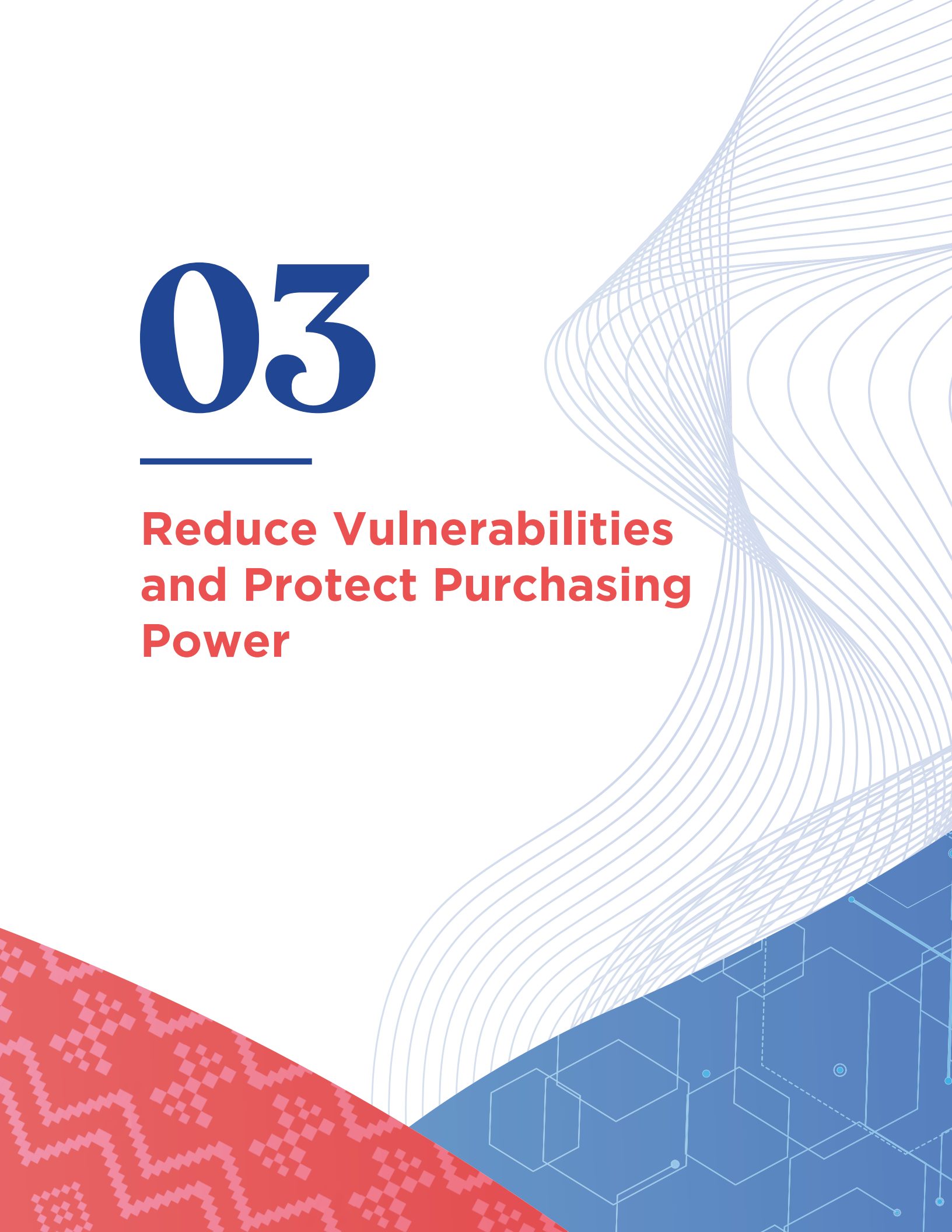
Indicator	Baseline (Year)	Targets						Means of Verification	Responsible Agency/ Inter-Agency Body	
		2023	2024	2025	2026	2027	2028			
Subchapter 2.3: Establish Livable Communities										
Outcome 1: Social Environment Promoted										
Number of civil society organizations accredited by the Provincial, Municipal, or City Sanggunian	22,203 (2020)	Increasing							Department of the Interior and Local Government (DILG)	
Outcome 2: Environmental Quality Improved										
Proportion of barangays served by material recovery facilities	41% (2021)	43%	45%	47%	49%	51%	53%	Annual Solid Waste Management Report	DENR	
Proportion of cities and/or municipalities served by sanitary landfill facilities	32% (2021)	35%	38%	41%	44%	47%	50%		DENR	
Percentage of water bodies conforming with water quality guideline values for the following intended use										
Water supply	0% (2021)	17%	17%	33%	33%	50%	50%	Annual Water Quality Report	DENR	
Food production	0% (2021)	13%	25%	25%	38%	38%	50%		DENR	
Primary contact recreation use	46% (2021)	54%	54%	62%	62%	69%	69%		DENR	
Percentage of highly urbanized and other major urban centers within ambient air quality guideline values for particulate matter (PM) 10 and 2.5	59% (2021)	60%	62%	64%	66%	68%	70%	Annual Air Quality Report	DENR	
Area of green spaces increased (hectare)	6,835 (2022)	Increasing						7,176	Comprehensive land use plan (CLUP), progress report; ordinances, resolutions	DENR, DHSUD, DILG, LGU
Outcome 3: Built Environment Upgraded										
Housing units started or financed	6.5M (end-2022)	1M	1M	1M	1M	1M	1M		DHSUD, KSAs	
Outcome 4: Responsive Governance Advanced										
Percentage of LGUs preparing risk-informed plans										
CLUP	43% (2021)	50%	60%	70%	80%	90%	100%	Progress report	DHSUD, LGUs	
Local Shelter Plans	16% (2022)	Increasing						Progress report	DHSUD, LGUs	

- ¹ PSA Estimates. (2018 and 2020). Technical Working Group on Maternal Mortality Ratio Estimation.
- ² Marquez, et.al. (2020). Estimating the potential impact of the COVID-19 pandemic on key sexual and reproductive health outcomes in the Philippines. Retrieved from <https://www.uppi.upd.edu.ph/sites/default/files/pdf/UPPI-Impact-of-COVID-19-on-SRH.pdf>
- ³ UNICEF, WHO, & World Bank. (2021). Joint child malnutrition estimates, March 2021 Edition. UNICEF, WHO, & World Bank.
- ⁴ World Health Organization (WHO). (2019). Immunization gaps contribute to rising measles cases in the Philippines. Retrieved from: <https://www.who.int/philippines/news/feature-stories/detail/immunization-gaps-contribute-to-rising-measles-cases-in-the-philippines>
- ⁵ Ulep, V. G., & Uy, J. (2021). An assessment of the expanded program on immunization (EPI) in the Philippines: Challenges and ways forward (No. 2021-04). PIDS Discussion Paper Series.
- ⁶ UNICEF. (2019). Building Confidence in Routine Immunization in the Philippines. Retrieved from <https://www.unicef.org/philippines/building-confidence-routine-immunization-philippines>
- ⁷ Institute for Health Metrics and Evaluation. (2020). GBD Compare. Seattle, Washington. Retrieved from <https://vizhub.healthdata.org/gbd-compare/>; Prevention and control of Noncommunicable Diseases in the Philippines. The Case for Investment, Philippines, 2019. Geneva: World Health Organization; 2019 (WHO/UHC/CDS-NCD/19.90).
- ⁸ National Tuberculosis (TB) Prevalence Survey
- ⁹ DOH. (2020). Impact of COVID-19 Pandemic to the Philippine HIV Epidemic. Retrieved from: doh.gov.ph/sites/default/files/publications/2020%20Annual%20HIV%20Report.pdf
- ¹⁰ Frontiers. (2021). Philippine Mental Health Act - A Call to Look Into the Bi-directionality of Mental Health and Economy. Retrieved from: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.706483/full>
- ¹¹ PAGASA. Climate Change in the Philippines. Retrieved from: <https://www.pagasa.dost.gov.ph/information/climate-change-in-the-philippines>
- ¹² Climate Adaptation Platform. (2021). Climate Change Impacts on health, and livelihood of Filipinos. Retrieved from: <https://climateadaptationplatform.com/climate-change-impacts-health-and-livelihood-of-filipinos-study>
- ¹³ The First 1000 Days (Manual of Procedures); Ulep, V. G. T., Uy, J., & Casas, L. D. (2020). Primary health care for noncommunicable diseases in the Philippines.
- ¹⁴ Cuenca, J. S. (2020). Fiscal Decentralization and Health Service Delivery: An Assessment.; Solon O. and Herrin A. (2017). The Challenge of Reaching the Poor with a Continuum of Care: A 25-Year Assessment of Health Sector Performance. In Risks, Shocks, Building Resilience. Proceedings of the Second Annual Public Policy Conference 2016. Philippine Institute for Development Studies and Bangko Sentral ng Pilipinas.
- ¹⁵ PHFDP 2020-2040; NHRHMP 2020-2040; and 2021 Socioeconomic Report
- ¹⁶ NHRHMP 2020-2040
- ¹⁷ National Tax Research Center. (2014). An Assessment of Republic Act No. 10351 or the Sin Tax Reform Law. NTRC Tax Research Journal. Retrieved from: <https://ntrc.gov.ph/images/journal/j20140910b.pdf>;
- ¹⁸ World Health Organization. (2022). Global Health Expenditure Database. Retrieved from https://apps.who.int/nha/database/country_profile/Index/en
- ¹⁹ Lavares, M. P., Ross, H., Francisco, A., & Doytch, N. (2021). Analysing the trend of illicit tobacco in the Philippines from 1998 to 2018. Tobacco control, tobaccocontrol-2020-056253. Advance online publication. Retrieved from <https://doi.org/10.1136/tobaccocontrol-2020-056253>
- ²⁰ Araos, N. V. V., Melad, K. A. M., & Orbeta Jr, A. C. (2022). Learning from Stories Behind Unexpected Results: A Qualitative Follow-up Study on the Third Impact Evaluation of 4Ps. Ivory Myka R. Galang, 46(2), 71.; DSWD. 4Ps concluded FDS on MaPa. Retrieved from: <https://pantawid.dswd.gov.ph/2022/04/4ps-concluded-fds-on-map/>
- ²¹ Bradley EH, Elkins BR, Herrin J, Elbel B. Health and social services expenditures: associations with health outcomes. *BMJ Qual Saf.* 2011 Oct;20(10):826-31. doi: 10.1136/bmjqs.2010.048363. Epub 2011 Mar 29. PMID: 21447501.
- ²² Hood, C. M., K. P. Gennuso, G. R. Swain, and B. B. Catlin. (2016) County health rankings: Relationships between determinant factors and health outcomes. *American Journal of Preventive Medicine* 50(2):129-135. <https://doi.org/10.1016/j.amepre.2015.08.024>
- ²³ World Health Organization. Retrieved from https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1
- ²⁴ Mathauer I, Dale E, Jowe M, Kutzin J. Purchasing of health services for universal health coverage: How to make it more strategic? Policy Brief, Department of Health Systems Governance and Financing, Geneva: World Health Organization; 2019 (WHO/UHC/HGF/PolicyBrief/19.6). Licence: CC BY-NC- SA 3.0 IGO.
- ²⁵ Orbeta, Jr. and Pacqueo. (2022). Philippine Education: Situationer, Challenges, and Ways Forward. Retrieved from <https://pidswebs.pids.gov.ph/CDN/document/pidsdps2223.pdf>;
- Generalao and David. (2022). Public-Private Complementarity in Philippine Higher Education: The Current Philippine Picture. In Fernando dlc Paragas (Eds.), *Contemporary Issues in Philippine Higher Education* (pp. 17-24). University of the Philippines Center of Integrative and Development Studies (UP CIDS). <https://cids.up.edu.ph/wp-content/uploads/2022/07/HERPRP-Contemporary-Issues-in-PH-Higher-Ed.pdf>;
- Ortiz, Melad, Araos, Orbeta, Reyes. (2019). Process Evaluation of the Universal Access to Quality Tertiary Education Act (RA 10931): Status and Prospects for Improved Implementation. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1936.pdf>
- ²⁶ Orbeta, Jr. & Pacqueo (2022) notes that private HEIs have shown better agility to respond to changing market demand and in offering courses of comparable quality at a lower price, relative to public HEIs. David and Generalao (2022) and Ortiz, et al. (2019) further highlighted the need to strategically enhance complementarity (by reducing redundancies and harnessing comparative advantage of both sectors), considering large funding support for public HEIs.
- ²⁷ Latest available data on government Expenditure on Education, total (% of GDP) estimated and reported by the UNESCO Institute of Statistics and World Bank. Retrieved from World Bank Database, <https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=PH>
- ²⁸ World Bank. (2022). The State of Global Learning Poverty: 2022 Update. Retrieved from <https://thedocs.worldbank.org/en/doc/e52f55322528903b27f1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf> (November 2022).
- ²⁹ David, Clarissa C.; Albert, Jose Ramon G.; Vizmanos, Jana Flor V. (2019). Pressures on public school teachers and implications on quality. Philippine Institute for Development Studies. Retrieved from <http://hdl.handle.net/11540/9702>.
- ³⁰ In the 2018 PISA, the Philippines ranked 76th out of 76 countries in Reading, 75th out of 76 countries in Math, and 76th out of 77 countries in Science. At the TIMSS assessment, the Philippines also ranked the lowest (among 58 countries) in both Math and Science.
- ³¹ World University Rankings 2023 Digital Report. (October 12, 2022). Times Higher Education. Retrieved from <https://flipbooks.timeshighereducation.com/19712/79124/index.html#37303>
- ³² Ateneo, UP lead 10 Philippine HEIs joining THE World University Rankings. (October 12, 2022). CHED. Retrieved from <https://ched.gov.ph/ateneo-up-lead-10-philippine-heis-joining-the-world-university-rankings/>
- ³³ In compliance with the Barangay-Level Total Development and Protection of Children Act (RA 6972).

- ³⁴ Woodhouse, A. and Lamport, M. (2012). The relationship of food and academic performance: A preliminary examination of the factors of nutritional neuroscience, malnutrition and diet adequacy.
- ³⁵ TESDA. (2018) National Technical and Educational Skills Development Plan 2018-2022: Vibrant Quality TVET
- ³⁶ Livable communities may refer to a neighborhood, a socialized housing project, an infill development site, or a resettlement area which will collectively upscale livability of the city, municipality, and a metropolitan area where they are located. Livable communities broaden the concept of human settlements by focusing on human wellbeing, citizen engagement, social cohesion and environmental sustainability elements of livability apart from the built environment emphasis of human settlements. Republic Act 11201 or the Department of Human Settlements and Urban Development (DHSUD) Act defines human settlement as “comprising of (a) physical components of shelter and infrastructure; and (b) services to which the physical elements provide support such as community services which include education, culture, welfare, recreation and nutrition.”
- ³⁷ UN HABITAT 2021. Rapid Research on COVID-19 Pandemic to the Urban Poor and Other Vulnerable Groups in the Cities of Ozamiz and Tagum.
- ³⁸ Survey of poor communities in 101 and 135 barangays across Luzon, Visayas, and Mindanao in September 2020 and April 2021 conducted by World Bank, Department of Social Welfare and Development, and the Australian Government.
- ³⁹ Francis Atwil, et.al. (2022). World Risk Report 2022. Bündnis Entwicklung Hilft and Ruhr University Bochum. Aachen, Germany
- ⁴⁰ INFORM. (2022). INFORM Risk Index 2023. <https://drmkc.jrc.ec.europa.eu/inform-index>. INFORM is a multistakeholder forum of the Inter-Agency Standing Committee Reference Group on Risk, Early Warning and Preparedness and the European Commission. The European Commission Joint Research Centre is the scientific lead of INFORM.
- ⁴¹ DENR in National Tax Regulation Council (NTRC) Regulation on the Use of Plastic Bags in the Philippines and Other Countries. (2019). NTRC Tax Research Journal. September-October 2019
- ⁴² W.C. Padojinog & E.M. Yap. (2020). Clearing the Housing Backlog: An Updated Supply and Demand Study on Owner-Driven Construction Segment. Center for Research and Communication Foundation, Inc. and Habitat for Humanity: Terwilliger Center for Innovation in Shelter. Retrieved from <https://www.habitat.org/sites/default/files/documents/Clearing-the-Housing-Backlog.pdf>
- ⁴³ Office of Civil Defense. (2022). Midterm Monitoring Matrix: Sendai Framework for Disaster Risk Reduction 2015-2030
- ⁴⁴ PD 1216 requires the developer or owner of a residential subdivision one hectare or more to allocate 30 percent of the gross area for open space. Open space shall mean an area reserved exclusively for parks, playgrounds, recreational uses, schools, roads, places of worship, hospitals, health centers, barangay centers or other similar facilities and amenities.
- ⁴⁵ PD 1216 requires the developer or owner of a residential subdivision one hectare or more to allocate 30 percent of the gross area for open space. Open space shall mean an area reserved exclusively for parks, playgrounds, recreational uses, schools, roads, places of worship, hospitals, health centers, barangay centers or other similar facilities and amenities.
- ⁴⁶ Patrick I. Patino. (2016). Building safe and resilient communities against poverty and disaster. Institute of Popular Democracy. Asian Cities Climate Resilience Working Paper Series 29. 2016.
- INFORM. (2022). Inform Risk Index 2023. Retrieved from <https://drmkc.jrc.ec.europa.eu/inform-index> (November 2022)
- Patrick I. Patino. (2016). Building safe and resilient communities against poverty and disaster. Institute of Popular Democracy. Asian Cities Climate Resilience Working Paper Series 29. 2016.
- UN HABITAT - Philippines. (2021). Rapid Research on COVID-19 Pandemic to the Urban Poor and Other Vulnerable Groups in the Cities of Ozamiz and Tagum. Retrieved from https://designingresilience.ph/wp-content/uploads/Resilient-and-Green-Recovery-Research_v2_15June_a.pdf (November 2022)
- World Bank, Department of Social Welfare and Development, and Australian Government. (2021). Impacts of COVID-19 on Communities in the Philippines Results from the Philippines High Frequency Social Monitoring of COVID-19 Impacts. Retrieved from <https://documents1.worldbank.org/curated/en/307821629731362571/pdf/Results-from-the-Philippines-High-Frequency-Social-Monitoring-of-COVID-19-Impacts-Round-2.pdf#page=6W>. (November 2022)
- Revise to: W.C. Padojinog & E.M. Yap. (2020). Clearing the Housing Backlog: An Updated Supply and Demand Study on Owner-Driven Construction Segment. Center for Research and Communication Foundation, Inc. and Habitat for Humanity: Terwilliger Center for Innovation in Shelter. Retrieved from <https://www.habitat.org/sites/default/files/documents/Clearing-the-Housing-Backlog.pdf>

03

**Reduce Vulnerabilities
and Protect Purchasing
Power**



Reduce Vulnerabilities and Protect Purchasing Power

As articulated in *AmBisyon Natin 2040*, the Filipino people desire a stable and high level of well-being wherein they are secure in the knowledge that they have enough to provide for their wants and needs and can prepare for their own and their families' futures. Amid the multiple threats to food security from both global and domestic sources, the PDP 2023–2028 underscores collective action that will keep food prices within the reach of every Filipino. This will be pursued by diversifying food supply sources, strengthening buffer stocks for emergencies, optimizing digital platforms for the marketing and delivery of food, and proactively monitoring the supply and demand for key commodities. In addition, the country needs a transformative social protection system that empowers every Filipino to prevent, respond to, and recover from possible shocks. Such a transformative system would go beyond risk management intervention and includes responses to structural vulnerabilities and social discrimination that will help Filipinos access programs covering all types of risks throughout their lifetime.

The overall outcome of the chapter is to reduce vulnerabilities and protect purchasing power. This will be pursued through the following outcomes discussed in two subchapters. Subchapter 3.1 presents the challenges in attaining food security and proper nutrition, including the strategies to achieve the following outcomes to be pursued to address these challenges during the Plan period: (a) sufficient and stable supply of food commodities attained; (b) access of consumers to affordable, safe, and nutritious food expanded; and (c) nutrition across all ages improved. In subchapter 3.2: (a) a universal, modern, and integrated social protection system achieved; (b) individual and life cycle risks mitigated; (c) economic risks managed; (d) natural, health, climate, and other human-induced hazards mitigated; and (e) governance and political risks addressed.

Subchapter 3.1 Ensure Food Security and Proper Nutrition

Amid the multiple threats to food security from both global and domestic sources, the Plan underscores the importance of collective action to keep food prices within the reach of every Filipino. Thus, the concerted efforts of all sectors shall be harnessed to manage the high cost of nutritious and safe food and address supply chain disruptions due to the continuing vulnerability of the production sector to shocks. Necessary measures to improve nutrition status across all age groups will also be adopted. By 2028, we envision that Filipino individuals and families will have secure access to sufficient, affordable, safe, and nutritious food to sustain a “productive and healthy” life, resilient against shocks and crises that may erode their purchasing power.

In the medium-term, strategies to enhance productivity and resiliency of the agriculture and fisheries sector shall be integral to advancing the country's food and nutrition security agenda. Complementing this are measures to (a) diversify food supply sources beyond traditional production areas,

(b) strengthen buffer stocking for emergencies and disasters, (c) maximize the use of digital platforms for marketing and delivery of safe and nutritious foods, and (d) proactively monitor supply and demand of key commodities as an anticipatory mechanism against shocks and crises. A whole-of-society approach in promoting healthy lifestyle and a culture of active health-seeking behavior among Filipinos shall also be adopted, while also scaling up nutrition-specific and nutrition-sensitive programs at the national and local levels.

Assessment and Challenges

The country's progress in attaining food security has been slow, posting a score within the moderate food security category¹ since 2012, based on the Global Food Security Index. In 2020, when the Philippines recorded its highest score of 61 (100 being the most favorable), it only ranked 64th out of 113 countries. In 2022, the country's score slipped to 59.3 amid global economic headwinds, including the Russia–Ukraine conflict that led to food price spikes. Among Southeast Asian countries, the Philippines was ahead of Myanmar, Cambodia, and Laos,² but lagged behind Singapore, Malaysia, Vietnam, Indonesia, and Thailand.³

While food inflation in the last five years was generally within target, recent supply-side shocks resulted in higher food inflation. From 2017 to 2021, food inflation averaged at 3.7 percent, which is well within the 2 to 4 percent target specified in the PDP 2017–2022. However, it accelerated to 6.7 percent and 4.5 percent in 2018 and 2021, respectively. Among the top contributors to the surge in the overall inflation was the sharp price increases in rice (in 2018), meat, and fish. Following the passage of Republic Act No. 11203 or the Rice Tariffication Law in 2019, rice supply increased and ceased to be among the drivers of inflation. The price of meat also rose in 2018 and 2021 as

the local hog production contracted due to weather disturbances and African Swine Fever. Meanwhile, the depletion of fish stock in the country, limited supply of quality fish fingerlings for aquaculture production, and unfavorable weather conditions, among others, resulted in elevated fish prices (See Chapter 5).

Food inflation sharply increased to 10.3 percent in November 2022, up from only 1.6 percent in January 2022. This can be attributed to the decline in the local production of key food commodities such as *palay*, sugarcane, vegetables (e.g., tomato and cabbage), fruits (e.g., mango and banana), and fish (e.g., *bangus* and *galunggong*).⁴ Domestic production and transportation of agricultural commodities to markets were affected by typhoons that hit the country since the fourth quarter of 2021⁵ and the soaring prices of farm inputs (e.g., fertilizer, feeds, and fuel) due to the ongoing Russia–Ukraine conflict. Unabated, the increase in food prices will push more Filipinos to hunger and likely overturn gains in national nutrition targets achieved so far.

There have been varying degrees of success in addressing malnutrition. From 2015 to 2021, the prevalence of both stunting and wasting among children under five years of age decreased, the former from 33.4

to 26.7 percent and the latter from 7.1 to 5.5 percent. Despite the coronavirus disease (COVID-19) pandemic, both the targets for the reduction of stunting and wasting were attained. Meanwhile, the proportion of households that met 100 percent of recommended energy intake worsened from 31.7 percent in 2015 to 21.8 percent in 2018. The quarantine restrictions due to COVID-19 also limited the mobility and livelihood of households, thus aggravating food insecurity. Based on the results of the Expanded National Nutrition Survey (ENNS) conducted by the Department of Science and Technology–Food and Nutrition Research Institute (DOST-FNRI) in 2021, 33.4 percent of households experienced moderate to severe food insecurity, of which 2 percent suffered from severe food insecurity or did not have food for a day or more. To mitigate the pandemic’s impact, the Nutrition Cluster⁶ issued guidelines in 2020 to ensure the continued provision of nutrition service delivery during the pandemic and in any future emergencies.

Various policies, programs, and initiatives on hunger, nutrition, and food security were implemented, especially during the pandemic and the ongoing Russia–Ukraine Conflict. In the previous Plan period, the Inter-Agency Task Force on Zero Hunger⁷ formulated the National Food Policy and spearheaded the implementation of the *Pilipinas Kontra Gutom* campaign.⁸ With the objective of ending hunger and poverty in the country, the Department of Social Welfare and Development (DSWD) pursued convergence projects with other agencies through the Enhanced Partnership Against Hunger and Poverty Program. The Department of

Agriculture (DA) also implemented the Plant, Plant, Plant Program⁹ to boost local production and ensure adequate food supply during the pandemic. Complementary interventions of the DA and DSWD extended financial assistance to vulnerable groups, including farmers and fisherfolk,¹⁰ to help them cope with the surge in commodity prices. To ensure proper nutrition, other policies and programs were also undertaken, such as the *Masustansyang Pagkain para sa Batang Pilipino* Act (RA 11037),¹¹ which institutionalizes the feeding programs of the DSWD and Department of Education (DepEd).

There were also challenges encountered in ensuring food security and proper nutrition. The production sector is vulnerable to myriad shocks—ranging from typhoons, disease outbreaks, pandemics to armed conflicts—threatening the stability and sufficiency of food supply. Aside from reducing food production, extreme weather events and other disasters also limit food distribution. This occurs when transportation and logistical facilities are hampered, resulting in delayed delivery of commodities to end-users and food spoilage. Movements along the supply chains are further disrupted by conflicting and outdated traffic regulations and inspection protocols across all transport modes. Inadequate storage facilities such as warehouses and cold storage further aggravate the slow movement of inputs and food products. The additional taxes and fees imposed by local government units (LGU) on goods crossing their respective borders also raise the transport costs and retail prices of food products. These issues became more prominent during the pandemic.

Meanwhile, the expansion in consumers' access to affordable, safe, and nutritious food is constrained by inequitable access to the internet, inadequate information and communications technology infrastructure, and limited use and knowledge of digital technologies. This so-called digital divide manifests in the inability of many to participate in emerging online market platforms for availing safe and nutritious food when traditional supply chains are disrupted, like during disasters or emergencies.

Improvement in nutrition across all age groups is undermined by the following: (a) insufficient supply and access to healthy food and diets; (b) inadequate care and feeding practices and behaviors; and (c) poor access to adequate health, water, sanitation, and food safety services, among others. The situation is also aggravated by fragmented and uncoordinated approach of relevant agencies and stakeholders for nutrition as well as the inadequate financial and human resources devoted by LGUs to the provision of age-specific nutrition interventions.

Strategy Framework

To ensure food security and proper nutrition of Filipino families and their members, concerted efforts of the government, private sector, and other stakeholders will be geared toward (a) attaining sufficient and stable supply of food commodities; (b) expanding access of consumers to affordable, safe, and

nutritious food; and (c) improving nutrition across all ages (*See Figure 3.1*). Such strategies will help reduce food insecurity and end hunger by providing accessible and affordable safe and nutritious food for all Filipinos, at all times.

Figure 3.1 Strategy Framework to Ensure Food Security and Proper Nutrition



Strategies

Outcome 1: Sufficient and stable supply of food commodities attained

Boost productivity and resiliency of the local agriculture and fisheries sector

Achieving sufficient and stable food supply requires intensified interventions to enhance agriculture and fisheries productivity and resilience (*See Chapter 5*). The interventions to be pursued include the (a) diversification of production to maximize the use of resources; (b) consolidation and clustering of farms to take advantage of economies of scale; and (c) adoption of improved technologies to modernize the sector. Access of primary producers to production inputs shall also be improved, in conjunction with efforts to hasten land titling, improve water management, utilize farm and non-farm wastes and biological materials as fertilizer sources, and improve the provision of credit. The development of the blue economy, which is a critical source of fisheries and aquaculture products, shall also be prioritized.

Meanwhile, the creation and adoption of climate- and disaster-resilient technologies shall be expanded to improve the resiliency of the agriculture and fisheries sector. This will be accompanied by the development and mainstreaming of early warning systems and anticipatory mechanisms (*See Chapter 5*).

Diversify food supply sources by augmenting domestic supply through international trade and maximizing the use of non-traditional agricultural areas

The temporary and short-term reduction of tariffs and expansion of minimum access volume shall be pursued to complement insufficient local production of food commodities, especially when disasters and other shocks (e.g., Russia–Ukraine conflict, pandemic, and transboundary animal diseases) occur. To assess the necessity of such measures, the government shall proactively monitor and enhance supply-demand forecasting of key commodities (e.g., rice, meat, fish, vegetables, and sugar) to anticipate possible shortages. An anticipatory mechanism will facilitate the timely implementation of appropriate measures to enhance domestic supply and forestall the sudden or sharp uptick in domestic food prices.

Production in non-agricultural areas, such as urban farming, vertical or rooftop gardening, and school and community gardening, shall be further promoted for subsistence supply and as accessible food sources. This will prove beneficial when the usual food supply chains are disrupted. Households and communities will likewise be encouraged to till idle or vacant lots for food. In this endeavor, the government shall provide production inputs, such as seeds or seedlings, soil, compost, and

initial stock (e.g., small ruminants, chicken, and ducks) as starter kits, complemented with skills training (e.g., sowing of seeds and proper management, composting, and pest disease management).

Streamline and improve the implementation of trade regulatory measures

This strategy includes the government's full adoption of a risk-based inspection system in lieu of a 100 percent physical inspection. While such a system will still ensure the safety of imported agri-food commodities, it will also reduce inspection costs. Moreover, the Bureau of Customs' National Single Window shall be improved and linked with the DA's Trade System. Overlapping and redundant non-tariff measures shall also be reviewed and rationalized. To improve the efficiency in the implementation of critical non-tariff measures, sufficient investment for manpower and border examination facilities (e.g., Cold Examination Facility in Agriculture) shall be provided.

Strengthen buffer stocking of rice and other basic food items for emergencies and disasters

The National Food Authority (NFA) shall ensure the maintenance of adequate¹² rice buffer stock at any given time, as determined by the NFA Council, and strategically pre-position these stocks for easy access during calamities and disasters. Meanwhile, the DSWD shall ensure the swift distribution of food packs to distressed families in affected areas. These food packs will contain nutritious, culturally appropriate, and safe food, and include infant

and young child feeding commodities. For their part, households, when possible, can practice stocking food items in preparation for calamities and disasters. To encourage them, the government shall also develop the necessary information, education, and communication (IEC) materials and conduct IEC campaigns.

Reduce and prevent food losses or waste

The provision of facilities, equipment, and capacity building for community composting (e.g., Bureau of Soils and Water Management Composting Facilities for Biodegradable Wastes) will be continued (See *Subchapter 2.3*). The establishment of food banks and community pantries as food redistribution mechanisms shall be encouraged through the collaboration of the government and private sector. Moreover, the government shall intensify IEC activities on the practical benefits of and ways to cut down food waste. These include environment-friendly dining options; proper food storage and preservation methods (e.g., drying, freezing, and salting); and food and kitchen waste composting in households. Appropriate policies at the national and local levels shall be enacted to prioritize the implementation and ensure adequate funding for these initiatives. Such policies may include the legislation of a Food Waste Management Policy that will promote, facilitate, and ensure waste reduction in all sectors of society.

Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded

Promote private investment in facilities, transport, and logistics systems to bring safe and nutritious food closer to consumers

While the government will strengthen the establishment of strategically located facilities such as interconnected transport systems, wholesale food terminals and trading centers, and other production and postharvest facilities (e.g., complementary food production facilities of the DOST-FNRI), these will not be enough. Also critical will be complementary private sector investments such as warehouses, cold chains, cold storage and refrigeration facilities, mobile storage, cloud kitchens and mobile marketplaces, rolling stores, processing facilities, and digital marketing channels. To provide guidance to the private sector and rationalize overall investment, the use of planning tools and information systems such as the Agricultural and Biosystems Engineering Management Information System,¹³ shall be promoted (See Chapter 5). In addition, the registration processes required for the construction, establishment, or operation of the necessary facilities and logistics as well as food safety and quality requirements shall be streamlined.

Ramp up the promotion and use of digital platforms for marketing, delivery, and payment transactions

Online marketing platforms implemented by the government (e.g., e-Kadiwa, Co-opBiz, and Deliver-E) and the private sector have served as efficient means for consumers to access food, albeit in only a few areas. Thus, efforts will be pursued to expand these online platforms, especially in areas outside of the

National Capital Region, and ensure that stakeholders (e.g., consumers, producers, and food businesses) can easily access these platforms (See Chapter 5). The government shall also promote consumer and producer rights' protection against fraud, cybercrime, and payment and website security issues (See Chapter 7).

Improve food transportation and distribution processes to hasten and ensure unhampered movement of food products

Coordination among government agencies (e.g., DA, Department of Trade and Industry [DTI], and LGUs) in the transportation and delivery of food products shall be further strengthened. This will include the harmonization of transportation guidelines at the national and local levels. Moreover, food lanes will be used for faster transportation of food products and the suspension of pass-thru fees for the transport of goods and products will be strictly implemented. Establishing hotline numbers for quick and effective responses to complaints by designated provincial officers is also needed. The timely release of food stocks from cold storage will also help ensure the continuous adequate supply in the market.

The DTI and DA, in collaboration with LGUs, manufacturers, and distributors, shall strengthen the implementation of programs that facilitate the delivery of goods to consumers such as *Kadiwa ni Ani at Kita*, *Diskwento* Caravans, and *Presyong Risonable Dapat* Program.

Strengthen price and supply monitoring of food commodities

The DA and DTI shall expand the use of mobile- and web-based price monitoring applications such as DA's *Bantay Presyo Ni Ani at Kita*¹⁴ and DTI's *e-Presyo*.¹⁵ Consumers may use these convenient online platforms to access necessary information on the prices and quality of food commodities and protect them from unscrupulous traders. Furthermore, the Local Price Coordinating Councils (LPCC)¹⁶ in each province or municipality shall be reactivated through the issuance of Department of the Interior and Local Government (DILG) memorandum circular. This is to closely monitor prices of agricultural commodities and processed goods, and coordinate and rationalize programs intended to stabilize prices and supply at the local level.

Moreover, existing tools that help monitor the food security status of the country shall be continued and strengthened to better guide the formulation and implementation of programs (e.g., Local Nutrition Early Warning System¹⁷ and Integrated Food Security Phase Classification¹⁸). A dashboard that links supply- (e.g., areas where commodities are planted and expected volume of production) and demand-side information (e.g., volume of food requirements per area) shall also be created (See Chapter 5).

Address anti-competitive practices and price manipulation

The Philippine Competition Commission shall be vigilant in monitoring anti-competitive practices, such as cartels, price-fixing, and market division or allocation, among others, and thereby secure the benefits of both consumers and businesses (See Chapter 10). The DA and DTI, in coordination with LGUs and accredited consumer groups, shall also intensify monitoring and enforcement activities to protect consumers from price manipulation and ensure that prices of basic necessities like rice and prime commodities are kept within reasonable levels.

Intensify promotion of food labeling and food safety measures

The government shall strengthen the implementation of measures and other existing rules and regulations in managing risks and addressing food safety and quality standards. This will cover measures on the traceability of products to support the targeting of regulations and regulatory actions to specific sources of risks. There is also a need to strengthen, harmonize, and streamline regulatory services and develop standards to ensure safe and quality products, facilitate trade, and promote ease of doing business. Institutional and human capacities of key agencies (e.g., Department of Health [DOH],¹⁹ DA,²⁰ and DTI²¹) to enforce regulations and enhance consumer awareness on the safety and quality of food products shall be enhanced.

Outcome 3: Nutrition across all ages improved

Adopt a whole-of-society approach in promoting healthy lifestyle and a culture of active health-seeking behavior among Filipinos across age groups and income classes

Multi-sectoral approaches and enabling environments for nutrition will be fostered across all life stages and consumer groups (e.g., Muslims, Christians, and Buddhists). Promotion of a healthy lifestyle (e.g., dietary diversity guided by *Pinggang Pinoy*²² by age group) will first improve nutrition and health literacy, and second, promote health-seeking behavior among Filipinos. Social and behavior change and communication for nutrition should be advocated at the individual, community, environmental, and structural levels to improve outcomes. The government, together with other stakeholders (e.g., private sector, non-government organizations [NGO], and development partners), shall intensify IEC activities that emphasize the benefits of eating nutritious food. To be promoted as well is the consumption of local and traditional food like root crops, fruits, vegetables, and seaweeds, organically grown and processed products as healthy and chemical-free food options, and food alternatives that meet dietary needs (e.g., plant-based food alternatives and alternative proteins). IEC materials will be digitalized (e.g., Nutri-bus to display nutrition education videos), while also maximizing the use of various forms of media. To reach the widest audience possible, information will also be translated to the appropriate language or dialect and customized to each target audience.

Intensify the development and adoption of technologies that increase the nutritional content and prolong the shelf-life of food products

The government, state universities and colleges, and private sector shall intensify the development of safe, affordable, nutritious, and energy-dense food products to address malnutrition (e.g., enhanced Nutribun; sesame seeds-based, and rice-mongo-based complementary foods developed by DOST-FNRI). Development of processing and packaging technologies to prolong shelf life and improve the nutritional content of food products (including utilization of waste products and startups for processing and packaging) shall likewise be pursued. Moreover, the government shall (a) strengthen research and development efforts on food fortification (e.g., large-scale fortification of staple foods); (b) promote and utilize iron-fortified rice and other products (e.g., NFA's Rice Fortification Project); and (c) explore advanced and emerging technologies (e.g., food preservation, smart packaging, and targeted nutrition), including biotechnology (e.g., Golden Rice²³ and orange-fleshed sweet potato). The private sector's role in the development of new technologies, both in processing and delivery of food, will also be enhanced especially since they have the financial resources, social capital, and expertise.

Implement measures to prevent and address wasting, stunting, and obesity

The government shall promote the convergence of services to counter the causes of the triple burden of malnutrition.²⁴ The delivery of services critical to the first 1,000 days of life will be ensured especially during emergencies. Quality and timely data shall be collected for accurate assessment and decision-making and prioritizing the early detection of stunting and wasting among young children. The promotion of healthy eating environments and healthy lifestyles shall also be strengthened to manage and prevent malnutrition and obesity.

Strengthen nutrition-specific, nutrition-sensitive, and enabling interventions especially at the local level

LGUs, in coordination with the DOH and National Nutrition Council (NNC), will ensure that appropriate nutrition and health-related interventions and services will be given during the first 1,000 days of life, which includes pregnancy and the infant's first two years of life. This is the so-called window of opportunity to influence the mental, productive, and health capacities of young children and to break the intergenerational cycle of malnutrition. This includes the provision of interventions to mothers and their children under *Kalusugan*

at *Nutrisyon ng Magnanay* Act (RA 11148), also popularly known as First 1000 Days Law.

Implementation of nutrition-specific interventions shall be fortified, such as the Infant and Young Child Feeding, Philippine Integrated Management of Acute Malnutrition, National Dietary Supplementation Program,²⁵ National Nutrition Promotion Program for Behavior Change, Micronutrient Supplementation,²⁶ Mandatory Food Fortification, Nutrition in Emergencies, and Overweight and Obesity Management and Prevention Program. To the extent possible, food requirements of feeding programs and relief operations shall be sourced from farmers and fisherfolk groups and cooperatives, which will also provide farmers and fisherfolk with assured markets (See Chapter 5).

Improve nutrition governance especially in local government units

Convergence of interventions, through horizontal and vertical coordination, will maximize the returns to investments in nutrition. Hence, nutrition governance will be improved by strengthening barangay nutrition scholar programs, establishing LGU nutrition offices, enhancing the functionality of all local nutrition committees and capacities of local nutrition workers, and strengthening the coordination system between the national and local government through the NNC.

Legislative Agenda

Table 3.1.1 presents the priority bills for the 19th Congress to ensure food security and proper nutrition.

Table 3.1.1 Legislative Agenda to Ensure Food Security and Proper Nutrition

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Enactment of Urban Agriculture Law	The proposed law aims to promote urban agriculture and vertical farming in the country's metropolitan areas as an instrument to contribute to attaining food security. Under this proposal, the use of available government- and privately-owned land resources in urban areas suitable for growing crops and raising poultry, livestock, and aquaculture will be promoted for agriculture purposes.	DA, DILG, DepEd, LGUs, and state universities and colleges
Food Waste Management Policy	This policy seeks to address the growing food waste problem in the country by adopting and institutionalizing mechanisms that will promote, facilitate, and ensure food waste reduction across different sectors of society (e.g., households, food establishments, food distributors, and supermarkets). This will include the establishment of (a) food donation and distribution platforms and networks such as food banks and community pantries; and (b) community composting that may be linked with initiatives on developing green urban spaces, including urban agriculture sites.	National Nutrition Council (NNC), Department of Environment and Natural Resources, DSWD, DepEd, Department of Health (DOH), DA, DTI, Department of Tourism, Department of Energy (DOE), DILG, and LGUs
Amendment of Presidential Decree 1569 or Strengthening Barangay Nutrition Scholars (BNS)	The amendment will upgrade the qualification standards, incentives, and benefits, and ensure the security of tenure of BNS. This is essential in the continuing capacity building and sustained delivery of quality frontline nutrition services to the community. Further, this will ensure that trained and experienced BNS are carried over by succeeding political administrations.	DILG, LGUs, DOH, NNC
Establishment of LGU nutrition offices	The presence of a Nutrition Office with adequate and competent staff complement will ensure that local governments have nutrition focal persons on the ground for nutrition programs to be properly implemented and able to benefit the targeted beneficiaries, especially the vulnerable and high-risk groups.	DILG, LGUs, DOH, NNC
Anti-Unhealthy Foods in Schools Act	This proposed law prohibits selling, promoting, marketing, or advertising unhealthy foods or junk foods and sugary drinks within 100 meters of school premises in all public and private preparatory, elementary, and junior and senior high schools. This will help prevent overweight and obesity among school children.	DOH, NNC, DepEd, DILG, LGUs
Amendment of RA 8976 or Food Fortification Law	The proposed amendment aims to resolve gaps and inconsistencies of RA 8976 with RA 11037 (Child Nutrition Act), RA 10611 (Food Safety Act of 2013), and RA 8172 (Act for Salt Iodization Nationwide). In particular, the amendment will focus on the coverage of mandatory fortification for rice, authorizing the NNC Governing Board to add and remove food for fortification and other provisions that need updating. This proposed legislative measure will also amend RA 8172 to enhance support for the local salt industry.	DOH, NNC, Food and Drug Administration, DTI, Department of Science and Technology–Food and Nutrition Research Institute, DA, and Land Bank of the Philippines

Results Matrix

Table 3.1.2 presents the indicators and targets to ensure food security and proper nutrition.

Table 3.1.2 Results Matrix: Ensure Food Security and Proper Nutrition

INDICATOR	BASELINE (YTD 2022)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Intermediate Goal: Develop and Protect Capabilities of Individuals and Families										
Chapter Outcome: Reduce Vulnerabilities and Protect Purchasing Power										
Subchapter 3.1: Ensure Food Security and Proper Nutrition										
Philippine food security index score increased	59.3	Increasing							Global Food Security Index Report	NEDA Board, National NNC Governing Board, and other rural development agencies (e.g., Department of Agrarian Reform and Department of Environment and Natural Resources)
Outcome 1: Sufficient and stable supply of food commodities attained										
Food inflation rate kept stable* [%]	5.7 (Jan-Nov)	2.5-4.5	2-4	2-4	2-4	2-4	2-4	2-4	Inflation Report	NEDA Board
Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded										
Subsistence incidence among population reduced** [%]	5.9 (2021)	4.5-5.5	N/A	3.5-4.5	N/A	3.0-4.0	2.5-3.5	2.5-3.5	Poverty Statistics Report	NEDA Board
Prevalence of food insecurity in the population [%] decreased										
a. Severe food insecurity	2.0 (2021)	0	0	0	0	0	0	0	Expanded National Nutrition Survey (ENNS)	NNC Governing Board
b. Moderate to severe food insecurity	33.4 (2021)	31.7	30.1	28.5	27.1	25.7	24.4	24.4		
Outcome 3: Nutrition across all ages improved										
Proportion of households meeting 100% recommended energy intake increased [%]	21.8 (2018-2019)	26.6	27.8	29.0	30.2	31.4	32.6	32.6	ENNS	NNC Governing Board
Prevalence of stunting among children under five years of age decreased [%]	26.7 (2021)	25.2	23.8	22.3	20.8	19.4	17.9	17.9	ENNS	NNC Governing Board
Prevalence of malnutrition for children under five years (wasting) decreased [%]	5.5 (2021)	5.3	5.1	4.9	4.7	4.5	4.3	4.3	ENNS	NNC Governing Board

* Based on Chapter 1 Targets.

** N/A for non-Family Income and Expenditure Survey years.

Subchapter 3.2 Strengthen Social Protection

By 2028, the country aims to have a transformative social protection system that helps Filipinos manage risks and addresses structural vulnerabilities and social inequities. The universality of a social protection system is realized when everyone has access to its programs in times of need. Through encouraging multi-stakeholder collaboration, these initiatives will enable Filipinos to continually transform their lives by reducing the adverse impact of shocks, protecting them from various risks, building their capacities and promoting socioeconomic participation. In the next five years, the Plan seeks to further strengthen and rationalize the social protection system such that Filipinos are able to access programs covering all types of risks in their lifetime.

Assessment and Challenges

Strides in social protection. Social protection (SP) in the country has gone a long way since it was officially defined by the Social Development Committee in 2007. In the same year, an operational framework was also approved to guide the implementation of SP programs; and the *Pantawid Pamilyang Pilipino* Program (4Ps) was piloted and rolled out nationwide, becoming the largest conditional cash transfer program in the country. In tandem with 4Ps, a National Household Targeting System for Poverty Reduction or the *Listahanan* was implemented in 2009 to replace patchy and often politicized mechanisms in selecting the beneficiaries of various programs. Pending the results of *Listahanan* 3 (the third iteration of the list of 4Ps beneficiaries), the government still uses the *Listahanan* 2 developed in 2015. This prevents concerned agencies from including new qualified beneficiaries in their means-targeted programs, resulting in inequities in the provision of needed support. More recently, significant legislations that expand social protection coverage were passed such as the Universal Health Care Act, 4Ps Act, Community-Based Monitoring System Act,

and Philippine Identification System (PhilSys) Act. SP programs were also initiated to help the affected individuals and sectors cushion the adverse impact of key policy reforms such as the Tax Reform for Acceleration and Inclusion Law and the Rice Tariffication Law. Moreover, national consultations were held to determine social protection floors for health, children, working adults, and the elderly.

Social protection during the pandemic. SP programs helped mitigate the impact of the COVID-19 pandemic. Specifically, the Social Amelioration Program (SAP) prevented about four million Filipinos from falling into poverty.²⁷ A World Bank estimate suggests that the poverty rate would have been almost 2 percentage points higher in 2020 in the absence of government assistance.²⁸ However, the weaknesses of the SP system were revealed during the pandemic. Since there was no single database of beneficiaries then, the DSWD, DILG and LGUs had to rely on different beneficiary targeting protocols. In particular, the DSWD used its own lists for the 4Ps and social pension, livelihood assistance grants, other social assistance packages, and list of overseas

workers from the Overseas Workers Welfare Administration (OWWA) in the Department of Labor and Employment (DOLE).²⁹ Without a comprehensive digital ID system in place, beneficiary enrolment was done with little deduplication or eligibility verification against government databases. Most processes were carried out manually, especially those that involve application for programs, beneficiary enrolment, and cash transfer payments.³⁰ The delivery of assistance was further delayed due to major logistical issues exacerbated by mobility and geographical constraints.

Low social protection expenditure and coverage. Government spending on SP programs as percentage of gross domestic product (GDP) in 2021 was at 2.7 percent. The country's government expenditures on SP have recorded an upward trend in recent

years, but this still lags behind other developing countries.³¹ The most recent Social Protection Index (SPI) Report of the Asian Development Bank (ADB) in 2019 reveals that the country's population-weighted expenditure on SP (2.9% of GDP) falls below the average weighted SPI of 5.3 percent for Asia and 3.0 percent for Southeast Asia. The Philippines surpassed only Indonesia (2.1%) among its neighbors, while the rest ranked higher—Malaysia (4.2%), Thailand (4.1%), and Vietnam (6.3%). Moreover, the World Social Protection Report 2020–22 of the International Labour Organization shows that the country's SP expenditure (2.6% of GDP) is lower than the Asia-Pacific average and that of Malaysia, Thailand, or Vietnam. In terms of coverage, the Philippines also remains below the region's average and that for Thailand and Vietnam (*See Table 3.2.1*).

Table 3.2.1 Social Protection Coverage and Expenditure in Selected Countries

Country	SP Coverage of Population (%)	SP Expenditure Excluding Health as Share of GDP (%)
Philippines	36.7	2.6
Indonesia	27.8	1.3
Malaysia	27.3	4.2
Thailand	68	3.0
Vietnam	38.8	4.3
Asia and Pacific Average	44.1	7.5

SP = social protection.

Source: International Labour Organization. 2021. *World Social Protection Report 2020–22*. Geneva.

There is a need to continue addressing recurrent and new risks facing vulnerable sectors and poor households. Several marginalized and vulnerable sectors need greater access to a variety of SP programs. While the Philippine SP system has programs that can address various risks, access to these programs is largely uneven. Data from the merged Labor Force Survey–Annual Poverty

Indicator Survey (LFS–APIS) show that households in the bottom 40 percent of the income distribution consistently registered lower SP coverage in 2017, 2019, and 2020 (without the SAP grants) than for all households (*See Table 3.2.2*). Their coverage only increased in 2020 when the SAP grants were added.³²

Table 3.2.2 Estimate of Social Protection Coverage among Households in the Philippines, 2017, 2019, and 2020

Households	2017 [%]	2019 [%]	2020 (without SAP, %)	2020 (with SAP, %)
Bottom 40%	57.29	61.79	66.09	91.05
All Households	65.78	72.85	73.14	90.69

SAP = Social Amelioration Program.

Sources: NEDA Social Development Services estimates; Philippine Statistics Authority. Various years. LFP-APIS. Quezon City.

There are population groups that would need special SP assistance because of their special conditions or circumstances. Owing to their limited mobility, some persons with disabilities need government cash support for their various expenses. The direct and indirect costs of disability are diverse due to a range of functional difficulties and health conditions among persons with disabilities. These costs will also be contingent on the level of accessibility and inclusiveness of the physical environment. Effective SP must also account for this diversity.³³

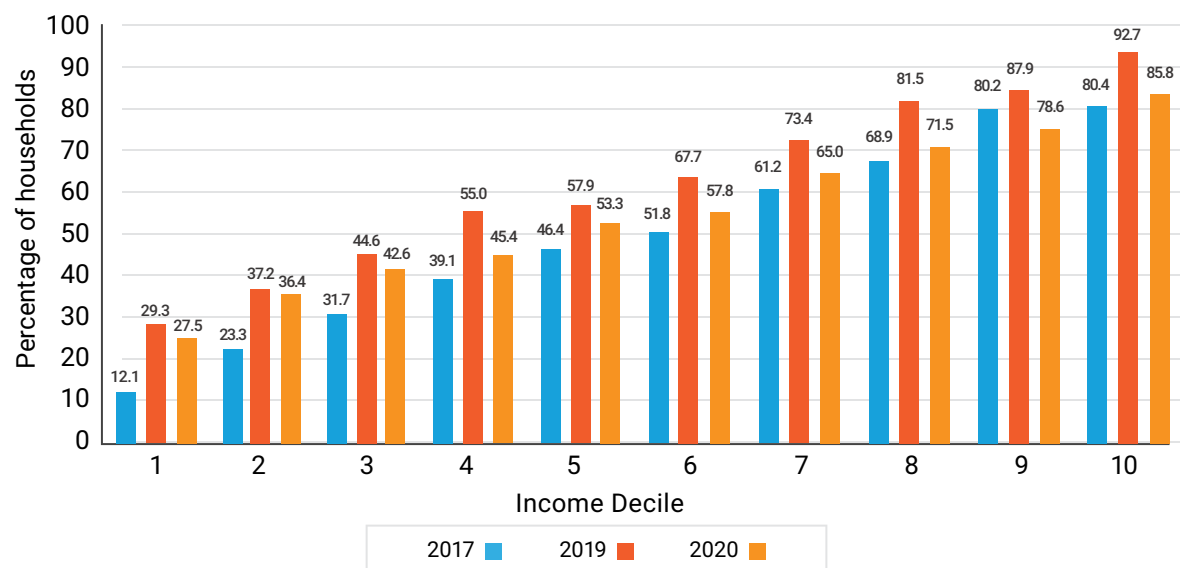
Also in need of special SP are migrant Filipinos. According to the Department of Foreign Affairs, only 88.9 percent of overseas Filipinos are legally documented, which include temporary or resident-seeking migrants. They need to have proper visas and permits for them to be covered by SP programs

either in the Philippines or in their host countries.

Modified SP programs are also needed by indigenous peoples and children who confront continuing political and governance concerns. Child labor, children in street situations, children in conflict situations, and children in conflict with the law, are only some of the social injustices that promotive and transformative SP programs need to address.

While social insurance covers all risks, coverage is uneven due to low awareness and high participation cost. The merged LFS-APIS data (*See Figure 3.2.1*) show that there is consistently less coverage among households from the bottom 40 percent while more than half of households from the sixth to tenth deciles have higher coverage.³⁴

Figure 3.2.1 Households with at Least One Member Covered by Social Security System, Government Service Insurance System, Private Life Insurance, and/or Health Maintenance Organization per Income Decile (%)



Note: Programs and/or facilities considered for 2017, 2019, and 2020: Government Service Insurance System (GSIS), Social Security System (SSS), Private Insurance, 4Ps, Social Pension Program for Indigent Senior Citizens, Sustainable Livelihood Program. For 2019 and 2020 only: Health Maintenance Organization (HMO), Unconditional Cash Transfer Program, Philippine Charity Sweepstakes Office, Individual Medical Assistance Program, Emergency Shelter Assistance. For 2019 only: *Pantawid Pasada*. For 2020 only: DSWD SAP, *Tulong Panghanapbuhay Sa Ating* Disadvantaged/Displaced Workers Program #Barangay Ko Bahay Ko, DA Rice Farmer Financial Assistance.

Source: 2017, 2019, and 2020 merged data from Philippine Statistics Authority. Various years. LFP-APIS. Quezon City.

The country continues to confront various natural, health, climate, and human-induced hazards. According to the National Disaster Risk Reduction and Management Council (NDRRMC), the disasters in the Philippines recorded 0.446 deaths, 0.024 missing persons; and 4,558.95 directly affected persons per 100,000 of the population in 2021. With an index score of 46.82, the Philippines has the

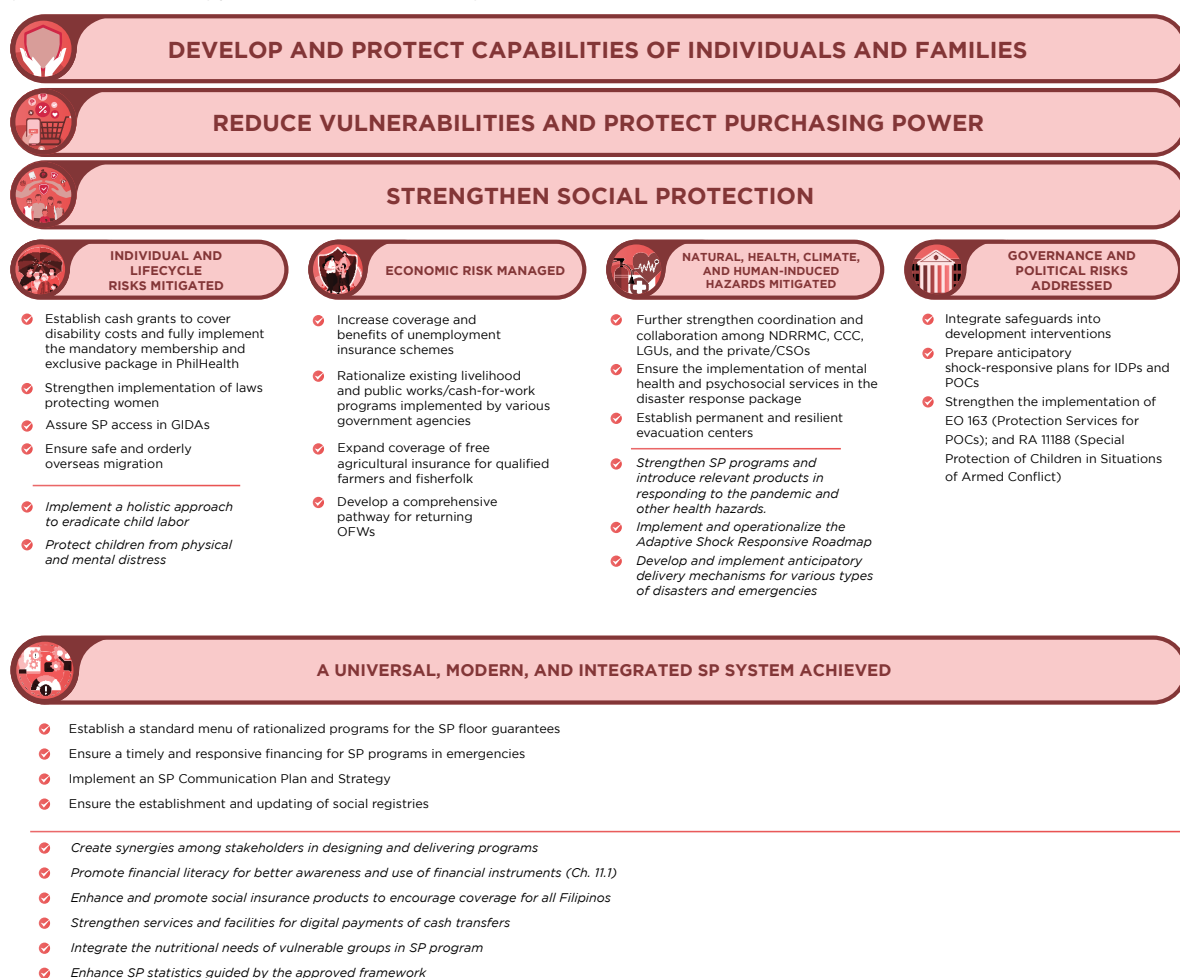
highest disaster risk among 193 countries covered in the World Risk Report 2022. There are also new risks brought about by geopolitical conflicts, technological disruptions from the Fourth Industrial Revolution, and emerging concerns due to changing climate patterns that are rendering SP programs even more relevant.

Strategy Framework

The PDP 2023–2028 aims for the country’s economic transformation toward a prosperous, inclusive, and resilient society. To this end, implementing a rationalized and integrated social protection system will be a key strategy (See *Figure 3.2.2*). Such

a system will enable Filipinos to manage individual or life cycle risks, as well as those arising from economic uncertainties, natural or human-induced hazards, or political circumstances.

Figure 3.2.2 Strategy Framework to Strengthen Social Protection



Strategies

To build the resiliency and adaptive capacity of the population, the government aims to provide a universal and integrated SP system, which can manage various present and future risks and shocks confronting Filipinos and re-engineered to link and enhance existing SP systems. Part of the rationalized SP system are

specific strategies that will protect vulnerable groups from covariate and idiosyncratic risks. Additional detailed plans responding to economic risks, natural, health, climate- and human-induced hazards, and governance and political risks are also laid out.

Outcome 1: A universal, modern, and integrated social protection system achieved

Establish a standard menu of rationalized programs for the social protection floor guarantees

Current SP programs shall be reviewed for possible overlaps, duplications, gaps, and relevance, given the limited fiscal resources and expanding needs for social protection. For the same reasons, the possibilities for rationalizing, merging, or reorganizing some SP programs shall also be explored. The proposed package of programs for each SP floor guarantee will improve coordination among agencies and maximize impact for beneficiaries. Programs that are selected in the package shall be strengthened at each stage—from targeting, to enrolment, to delivery. Innovative programs such as anticipatory and adaptive (shock-responsive) programs shall also be encouraged and mainstreamed. An important component of this strategy is the institutionalization of monitoring and evaluation of SP programs.

Among the programs that shall be reviewed are those on emergency cash assistance, livelihood, and social insurance. For example, there is scope for rationalizing the mandatory contributory programs for Overseas Filipino Workers (OFW) (i.e., study the overlap in the pension program of the Social Security System [SSS] and the programs of OWWA).

Ensure a timely response and adequate financing for social protection programs in emergencies

The government shall mobilize more resources for SP programs through closer

coordination with the private and civil society sectors. This is to ensure that there is adequate financing for the SP responses during emergencies. With sufficient resources, the timely responses of SP programs can be achieved. Improvements in the procedures for fund releases during these times shall also be implemented.

Implement a Social Protection Communication Plan and Strategy

Limited and faulty information on SP and the role it plays in the country's development remains a challenge for both service providers and the public. In addition, many citizens may still not be aware of the range of SP programs that they can access. There is a need to widen information dissemination of these programs and the procedures for their availment.

Ensure the establishment and updating of social registries

Concerned agencies shall establish and update social registries for vulnerable groups. To avoid gaps or overlaps, the registries of various government agencies and the national ID system will be harmonized. This initiative will facilitate targeting, authentication, registration, and enlistment into SP programs. Some registries shall also be linked with the database of specific locations that will emanate from the community-based monitoring system for the delivery of benefits. Designing new programs will also be facilitated given these coordinated efforts.

Create synergies among stakeholders in designing and delivering programs

Social protection is best pursued as a multi-stakeholder agenda to reach more people and increase impact. Thus, it requires collaboration and coordination in the program design and delivery among players across various sectors. National government agencies are not alone in delivering SP programs; often their initiatives are augmented by and undertaken in tandem with LGUs, which usually innovate their own program deliveries.³⁵ During the pandemic, the private and civil society sectors have piloted “community pantries” and “soup kitchens” that provided food for the hungry and capital for small restaurants.³⁶ The national government shall encourage and promote similar initiatives to reach more people in need. Through this whole-of-society approach, more sectors can be inspired to pool their resources for the greater public good.

Promote financial literacy for better awareness and use of financial instruments

According to the United Nation’s Financing for Sustainable Development Report 2021, nearly all (94%) of adults in developed countries and less than two-thirds (63%) of the same in developing countries have bank accounts. In 2021, the Bangko Sentral ng Pilipinas reported that more than 36 million Filipinos (almost half of all adults) did not have a bank account, thus missing out on the benefits of having one, such as the fast, convenient, and secure receipt of digital cash transfers from various SP programs. Aside

from having a bank account, the people’s awareness of financial instruments, such as savings and insurance, could widen their options for protecting themselves against adverse shocks and other risks. National and local governments, in partnership with the private and civil society sectors, shall ramp up efforts toward financial literacy (*See Subchapter 11.1*).

Enhance and promote social insurance products to encourage coverage of all Filipinos

Aside from conducting financial literacy programs, the introduction of innovative insurance products can be done through public-private-civil society sector partnerships (e.g., Card-Pioneer Crop Insurance for Farmers in partnership with the Philippine Crop Insurance Corporation). Such products should be affordable and have flexible payment schemes to cater to low-income households. There is also a need to ensure physical and digital accessibility of service providers.

Strengthen services and facilities for digital payments of cash transfers

With the advances in and adoption of digitalization technologies, digital payment platforms will be increasingly used for cash transfers. SP programs that share their digital platforms will result in greater efficiency and wider options for their beneficiaries. For example, when development partners utilized the 4Ps payment platform during emergency responses, they were able to reduce their administrative and transaction costs significantly.

Integrate the nutritional needs of vulnerable groups in social protection programs

Nutritional concerns shall be considered in the design of SP programs and policies. The government shall ensure that food provided to victims of disasters and beneficiaries of supplemental and school feeding programs

are healthy, nutritious, and appropriate for their physical conditions and life stages.

Enhance social protection statistics guided by the approved framework

With an approved framework as guide, SP statistical indicators shall be enhanced. These indicators are critical for monitoring and evaluation of programs and evidence-based policy making in the sector.

Outcome 2: Individual and lifecycle risks mitigated

Establish cash grants to cover disability costs and fully implement the mandatory membership and exclusive package in the social health insurance program (PhilHealth)

The government shall provide disability support allowance to persons with disability to enable them to defray part of the costs incurred due to their special conditions. To help them further, they will be extended mandatory membership coverage and appropriate PhilHealth benefit packages per RA 11228.

Strengthen implementation of laws protecting women

There is a need to strengthen the implementation of laws that protect women, including Anti-Violence Against Women and Their Children Act of 2004, Safe Spaces Act, Anti-Trafficking in Persons Act of 2003, Anti-Mail Order Spouse Act, and the Domestic Workers Act or *Batas Kasambahay*. Wider and more effective dissemination in various media of women's rights, gender-based violence laws, and the available

programs and facilities for women victims shall be undertaken. Both national- and local-level campaigns shall be organized to encourage women victims of violence to seek help from appropriate authorities and private organizations. Investigation and prosecutorial processes, prosecution, and case management processes, including those for heinous crimes against women, shall be streamlined.

Assure access to social protection programs in geographically isolated and disadvantaged areas

The national government, in coordination with the LGUs, shall intensify the provision of SP programs in geographically isolated and disadvantaged areas (GIDA). This will also entail the registration of indigenous peoples in GIDAs in the PhilSys. The convergent delivery of services by all concerned agencies (e.g., basic infrastructure by the Department of Public Works and Highways [DPWH] and Department of Transportation) shall be undertaken (*See Chapter 12*). The government shall likewise tap NGOs and other civil society sectors that target people in GIDAs.

Ensure safe and orderly overseas migration

The government shall ensure that Filipinos going overseas, whether as temporary migrant workers or seeking permanent residency in host countries, will have proper and legal documentation. This will be possible through closer coordination specifically among DOLE, Department of Foreign Affairs, Department of Migrant Workers (DMW), OWWA, and the Commission on Filipinos Overseas. The government shall also strengthen the enforcement of bilateral and regional agreements through better arrangements with host countries.

Implement a holistic approach to eradicate child labor

A holistic and multi-stakeholder approach shall be implemented for key programs addressing child labor in the country; these are expected to address the economic, social, and psychological aspects of child labor. These programs will focus on current issues such as children in the informal economy and child labor in its worst forms, including online sexual abuse and exploitation

of children. These initiatives entail the strengthening of coordinative mechanisms and the provision of adequate resources to address the concerns of affected families. These will also include the organization of referral pathways and strategic helpdesks all over the country.

Protect children from physical and mental distress

Issues of street children, estimated at 369,242,³⁷ will be addressed through the Philippine National Multi-Sectoral Plan for Children in Street Situation 2021–2025 launched by the Council for the Welfare of Children and its partners in 2021. RA 11188 was also passed to respond to the needs of children in situations of armed conflict, and shall be continued. Nutrition programs implemented nationwide shall also be sustained to reduce the stunting and wasting of children. Mental health and psychosocial services shall also be provided to children, especially those who are left behind by OFW parents, those in situations of armed conflict, and in conflict with the law, as well as those who have experienced trauma during disasters.

Outcome 3: Economic risks managed

Increase coverage and benefits of unemployment insurance schemes

The current programs by SSS and GSIS shall be reviewed, and alternative schemes to increase coverage and benefits shall also be proposed. Implementation shall follow once financial feasibility of the selected option is confirmed.

Rationalize existing livelihood and public works/cash for work programs implemented by various government agencies

Given the variety of livelihood and public works and cash-for-work programs delivered by both national agencies (e.g., DSWD, DOLE, DPWH, and DA)

and local governments, basic guidelines and standards shall be set by a committee to be composed of all agencies that have such programs. The committee shall also rationalize these programs by determining who among them will remain as implementers.

Expand coverage of free agricultural insurance for qualified farmers and fisherfolk

The government, through the DA, is reviewing and updating the Registry System for Basic Sectors in Agriculture to come up with a clean list of beneficiaries for free insurance to be delivered by the Philippine Crop Insurance Corporation. Expansion of

coverage shall also be facilitated through an updated list and agricultural insurance products shall be enhanced (*See Chapter 5*).

Develop a comprehensive pathway for returning OFWs

The government shall review and reorganize the various programs available for OFWs into a coherent package. The intent is to chart the different options and opportunities available to them to resettle, retire, or rejoin the labor sector as workers or entrepreneurs upon their return to the country. The DMW shall create a “one-stop shop” that will guide returning OFWs in their choice.

Outcome 4: Natural, health, climate, and other human-induced hazards mitigated

Further strengthen the coordination and collaboration among NDRRMC, Climate Change Commission, local government units, and the private and/or civil society sector

The government shall tighten emergency response by optimizing synergies of the various programs of key stakeholders. Common programs in the interconnected fields of sustainability, climate change, and disaster risk reduction and management shall be determined. This will encompass synchronizing such programs for prevention, mitigation, rehabilitation, and recovery.

Ensure the implementation of mental health and psychosocial services in the disaster response package

Learning from the country’s experiences in disasters like super typhoons Yolanda and Odette, the government shall ensure the provision of gender-sensitive and child-friendly mental health and psychosocial services to victims of disasters.

Establish permanent and resilient evacuation centers

To minimize the use of classrooms as evacuation centers during calamities, appropriate facilities shall be built to shelter the affected families. Aside from being permanent and typhoon- and earthquake-resilient, the evacuation centers shall be designed to cater to the well-being of

children, women, persons with disability, and the elderly.

Strengthen social protection programs and introduce relevant products in responding to the pandemic and other health hazards

Learning from the lessons during the pandemic, the government, in partnership with the private sector, shall strengthen the implementation of SP programs in responding to a health shock or crisis, including the introduction and production of necessary health-related products like protective personal equipment and vaccines that will be critical in the response. This will entail the coordination and collaboration of line agencies, including the DOH, DSWD, and DTI.

Implement and operationalize the Adaptive Shock Responsive Roadmap

The Adaptive Shock Responsive Roadmap has been adopted by the NDRRMC through Resolution No. 7, series of 2021. It aims to strengthen coordination mechanisms with inter-governmental agencies, raise

the capacities of concerned institutions, and implement pilot testing of integrated SP approaches from regular and ancillary programs and services in selected areas around the country.

Develop and implement anticipatory delivery mechanisms for various types of disasters and emergencies

While the country is regularly confronted with disasters and emergencies, new technologies for better forecasting have also been developed. As an example, the National Economic and Development Authority (NEDA) uses Geographic Information Systems in estimating the impact of location characteristics, and finds that landslide-prone areas are correlated with lower household incomes, while moderate flooding risks are associated with higher household incomes.³⁸ Using early warning mechanisms, the government shall implement anticipatory mechanisms and shock-responsive social protection programs to address emergencies. Such efforts can reduce shocks to household incomes and casualties (e.g., deaths and missing persons) due to disasters.

Outcome 5: Governance and political risks addressed

Integrate safeguards into development interventions

It is inevitable that some development projects and reform policies will result in the displacement of or negative outcomes for some sectors in society. Thus, the government shall continue to ensure built-in safety nets with adequate financing in such projects to

compensate for or mitigate the impacts of such projects and policies on affected sectors.

Prepare anticipatory shock-responsive plans for internally displaced persons and persons of concern

The government will provide anticipatory programs that will address the needs of

internally displaced persons (IDP) and persons of concern (POC) especially in situations of violence and conflicts. These will include establishing a dynamic registry, strengthening early warning and delivery systems, and building local capacities of affected areas. The Bangsamoro Autonomous Region in Muslim Mindanao has piloted such programs and these can be replicated in areas with similar situations.

Strengthen the implementation of Executive Order No. 163, series of 2022 (Protection Services for POCs) and RA 11188 (Special Protection of Children in Situations of Armed Conflict)

The government shall increase efforts to provide the necessary human and financial resources in the implementation of the new executive order and law.

Legislative Agenda

Table 3.2.3 presents the priority bills for the 19th Congress to strengthen social protection.

Table 3.2.3 Legislative Agenda to Strengthen Social Protection

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Achieve a Universal, Modern, and Integrated Social Protection (SP) System		
Universal and Integrated SP System	The need for a legal framework that will rationalize SP programs toward an integrated system where there is: • Recognition of SP as a basic right provided by the state; • Institutionalization of SP floor; • Establishment of effective coordination structures; • Establishment and updating of social registries; • Enhancement of digital payment platforms; and • Sustainable financing <i>(See Subchapter 11.1)</i> and partnerships with the private and civil society sectors	DSWD and NEDA
Mitigate Individual and Lifecycle Risks		
Unified System of Separation, Retirement, and Pension	This bill seeks to provide an equitable and sustainable pension system for uniformed personnel. It also intends to address the weakness in their current pension system such as automatic indexation, funding sources, and the need to adjust the pensionable age, among others.	Department of Finance
Disability Support Allowance	The bill seeks to grant a cash subsidy to supplement incomes of households with persons with disability.	National Council on Disability Affairs
Expansion of Unemployment Insurance	This will expand the coverage and benefits of unemployment insurance under the Social Security System (SSS) and Government Service Insurance System (GSIS).	SSS, GSIS, Department of Labor and Employment
Mitigate Natural, Health, Climate, and other Human-Induced Hazards		
Evacuation Center Act	This will establish permanent and typhoon-resilient evacuation centers with necessary facilities to avoid the practice of using classrooms during calamities. These centers will also take into consideration in their design the welfare of children, women, persons with disability, and the elderly.	National Disaster Risk Reduction and Management Council

Results Matrix

Table 3.2.4 presents the indicators and targets for strengthening social protection.

Table 3.2.4 Results Matrix: Strengthening Social Protection

Indicator	Baseline (Year)	Annual Plan Targets						Means of Verification	Responsible Agency/ Inter-Agency Body
		2023	2024	2025	2026	2027	2028		
Intermediate Goal: Develop and Protect Capabilities of Individuals and Families									
Chapter Outcome: Reduce Vulnerabilities and Protect Purchasing Power									
Subchapter 3.2: Strengthen Social Protection									
Percentage of families covered with social insurance (%)	83.8 (2020)	100	100	100	100	100	100	Annual Poverty Indicators Survey	SSS, GSIS, PhilHealth, Philippine Crop Insurance Corporation
Percentage of poor households with members 18 years old and below that are 4Ps beneficiaries (%)	64.52 (2019) <i>Listahanan 2</i>	67.5	71.0	74.5	78	81.5	85.0	<i>Listahanan</i> Latest Standardized Targeting System	Department of Social Welfare and Development (DSWD)
Percentage of senior citizens who receive pension (%)	60.27 (2021)	62.98	63.74	64.20	65.41	65.84	66.53	SSS, GSIS, DSWD, Philippine National Police (PNP) Pensioner Online Accounting System admin data and Philippine Statistics Authority population projection	SSS, GSIS, DSWD, National Commission of Senior Citizens, PNP, Armed Forces of the Philippines
Percentage of documented Overseas Filipinos to total Overseas Filipinos (%)	88.9 (2021)	Increasing						Department of Foreign Affairs report	Department of Foreign Affairs, Department of Migrant Workers, Overseas Workers Welfare Administration, Commission on Filipinos Overseas
Percentage of economically active population contributing to SSS (%)	37 (2021)	39-40	40-41	40-41	41-42	41-42	42-43	SSS admin data	SSS
Total expenditures on social protection programs as percentage of gross domestic product* (%)	2.7 (2021)	3.13	3.55	3.98	4.49	4.83	5.25*	Department of Budget and Management data	National Economic and Development Authority Social Development Committee

*Average spending of middle-income countries on SP excluding health (Source: ILO, World Social Protection Report 2020-22)

- ¹ Food security index scores are classified as: (a) very good: 80–100; (b) good: 70–79.9; (c) moderate: 55–69.9; (d) weak: 40–54.9; and (e) very weak: 0–39.9. The index is constructed from 28 unique indicators that cover the four dimensions of food security (e.g., change in average food cost, access to agricultural inputs, volatility of agricultural production, dietary and diversity, nutritional standards, and exposure to risks). The 2022 Global Food Security Index Report was released in September 2022.
- ² Scores ranged from 53.1 to 57.6.
- ³ Scores ranged from 60.1 to 73.1.
- ⁴ Based on the report from the PSA, the volume of production for the following commodities contracted in the first three quarters of 2022 relative to the same period of 2021: palay at –0.2 percent, sugarcane at –20.8 percent, tomato at –4.5 percent, cabbage at –4.2 percent, calamansi at –4.1 percent, mango at –3.9 percent, banana at –0.9 percent, cassava at –0.3 percent, coffee at –4.5 percent, bangus at –13.3 percent, and galunggong at –3.2 percent, among others.
- ⁵ The decline in the production of sugarcane is attributed to the lingering effects of Typhoon Odette in December 2021, which affected new plantings and damaged the standing crop. Losses brought about by calamities (e.g., pest infestation, volcanic eruption, and typhoons such as the Tropical Cyclone Karding and Severe Tropical Storm Paeng) as of November 2022 had reached 533,178 metric tons (MT) for palay and 333,085 MT for high-value crops.
- ⁶ Subcluster of Health under the NDRRMC. This is composed of partner agencies from government, the United Nations, and NGOs, which guides the implementation and monitoring of programmatic measures to reduce nutrition-related mortality and morbidity because of emergencies (like COVID-19) and impact of disasters on public health, economy, and social aspects.
- ⁷ Created in January 2020, through Executive Order No. 101, with the objective of ensuring that government policies, initiatives, and projects on attaining zero hunger shall be coordinated, responsive, and effective.
- ⁸ A multi-sectoral movement founded to help eradicate hunger and malnutrition in the Philippines by 2030. It is the collective effort of the government, NGOs, the academe, and the private sector to address the root of the nation's concerns on hunger—striving to improve food production and distribution, to repurpose food surplus to curb malnutrition, and to reduce hunger incidences caused by crises.
- ⁹ It was implemented in 2020 to 2021 with the following measures: (a) provision of cash and food subsidy to marginalized farmers and fisherfolk, (b) KADIWA ni Ani at Kita, and (c) urban agriculture and backyard gardening, among others. In 2022, the DA launched Plant, Plant, Plant Program 2, which comprises the following programs: (a) provision of fertilizer subsidy, (b) urban and peri-urban agriculture, (c) local feeds production, (d) aquaculture and mariculture fisheries, and (e) food mobilization.
- ¹⁰ Includes (a) DA's Fuel Discount for Farmers and Fisherfolk Program; and (b) DSWD's Targeted Cash Transfer Program and Assistance to Individuals in Crisis Situation. An Inter-Agency Committee—chaired by the DOF and co-chaired by the NEDA with the DSWD, DBM, BTr, and Land Bank of the Philippines (LANDBANK) as members—oversees the implementation of the Targeted Cash Transfer Program.
- ¹¹ Enacted in 2018 with the aim to institutionalize the National Feeding Program to combat hunger and undernutrition among Filipino children.
- ¹² Including the earmarked reserves of the ASEAN Plus Three Emergency Rice Reserve.
- ¹³ ABEMIS of the Bureau of Agricultural and Fisheries Engineering contains geotagged data on machineries and equipment provided, postharvest and logistics facilities established, and farm-to-market roads completed.
- ¹⁴ Daily price updates of various agricultural and basic commodities in major markets in the National Capital Region.
- ¹⁵ The Online Price Monitoring System of the DTI where consumers can check the prevailing prices of necessities and prime commodities that DTI is monitoring.
- ¹⁶ The LPCCs report to the National Price Coordinating Council (NPCC), which is chaired by the DTI. The LPCCs are composed of the governor or mayor of a specific province or municipality as the chairman and the DTI provincial director as the vice-chairman. Members include representatives from DA, DOH, DENR, DOTr, and NEDA; as well as consumers; agricultural producers; and representatives from the manufacturing, retail, and labor sectors.
- ¹⁷ A program and tool by the National Nutrition Council (NNC), which aims to identify causes of malnutrition and vulnerable people.
- ¹⁸ The Integrated Food Security Phase Classification or IPC is a set of tools and procedures that classify the nature and severity of food insecurity into five phases (minimal, stressed, crisis, emergency, famine); and chronic food insecurity into four levels (low chronic, moderate chronic, high chronic, very high chronic).
- ¹⁹ The DOH, through the Food and Drug Administration (FDA), establishes standards for processed food, drugs, and cosmetics.
- ²⁰ The DA's Bureau of Agriculture and Fisheries Standards develops standards for agriculture and agriculture-related products including fruits and vegetables and grains. The Bureau of Animal Industry, National Dairy Authority, National Meat Inspection Service, Bureau of Fisheries and Aquatic Resources, and Bureau of Plant Industry enforce food safety standards and regulations on food derived from animals, fresh fish and seafood, and plant foods.
- ²¹ The DTI's Bureau of Philippine Standards formulates standards for food and other categories (e.g., building, construction, and transport products). It is mandated to develop, implement, and coordinate standardization activities in the country and works with DOH and DA on this area.
- ²² *Pinggang Pinoy* is a visual food guide that uses a familiar food plate model to convey the right food group proportions on a per-meal basis to meet adults' or a particular group of individuals' energy and nutrient needs.
- ²³ Vitamin A-infused rice received approval for commercial propagation in July 2021. As of September 2022, the DA and Philippine Rice Research Institute (DA-PhilRice), in collaboration with the International Rice Research Institute, has commenced handing over the Golden Rice seeds to DA-PhilRice branch stations, partner agencies, seed growers, and farmers for planting in 38.45 hectares in the target sites as part of its deployment.
- ²⁴ The triple burden of malnutrition refers to undernutrition, micronutrient deficiencies, and overweight.
- ²⁵ Milk feeding program to community and school-based children, nourishment of pregnant women (e.g., Tutok Kainan), and day care and school children supplementation program, among others.
- ²⁶ Micronutrient supplementation for all under-five and school children, including pregnant and lactating women, among others.
- ²⁷ Albert, J.R., M. Abrigo, F. Quimba, and J. Vizmanos. 2020. "Poverty, the Middle Class, and Income Distribution amid COVID-19." Discussion Paper Series No. 2020-22. Quezon City: Philippine Institute for Development Studies (PIDS).
- ²⁸ Belghith (2021) cited in Cho, Y. and D. Johnson. 2022. COVID-19 and Social Assistance in the Philippines: Lessons for Future Resilience. Washington, DC: World Bank. See also Belghith, N. 2021. "Poverty and Distributional Impacts of COVID-19 Crisis." Washington, DC: World Bank. Mimeo.
- ²⁹ Gudmalin, C., L. Calina, J. Balbosa, J. Mangahas, and M. Samoja. 2021. Protecting the Poor and the Vulnerable Against the Pandemic. Tokyo: ADB Institute.
- ³⁰ Cho, Y. and D. Johnson. 2022. COVID-19 and Social Assistance in the Philippines: Lessons for Future Resilience. Washington, DC: World Bank.
- ³¹ Sicut, C.J. and M.A. Mariano. 2021. A Public Expenditure Review of Social Protection Programs in the Philippines. Quezon City: PIDS.
- ³² Social Development Services. n.d. "Policy Brief on Modernizing Social Protection." Pasig City: NEDA.
- ³³ United Nations Partnership on the Rights of Persons with Disabilities. 2020. Considering the Disability-related Extra Costs of Social Protection. <https://www.social-protection.org/gimi/RessourcePDF.action?id=56925>.
- ³⁴ Social Development Services. n.d. "Policy Brief on Modernizing Social Protection." Pasig City: NEDA.

- ³⁵ Some Galing Pook awardees are evidence of this—Cagayan de Oro City’s enrollment strategy for health insurance, the targeting mechanism of the municipality of Siayan in Zamboanga del Norte, and Tagum City’s public education and employment service office.
- ³⁶ Project Karinderya was initiated by 18 foundations and NGOs.
- ³⁷ This number comes from a Social Weather Stations–Lifebank Foundation Project in 2019 estimating the number of streetchildren in the country.
- ³⁸ Social Development Services. n.d. “Policy Brief on Modernizing Social Protection.” Pasig City: NEDA.

04

**Increase Income-earning
Ability**



Increase Income-earning Ability

Increasing the income-earning ability of Filipinos involves developing the workforce and increasing their employability in the market, ensuring that skills are aligned not just with the current in-demand requirements but also with critical and emerging skills. Effective and efficient employment facilitation processes will also enable faster and more strategic job search. A vibrant social partnership, based on shared responsibility for achieving a responsive, fair, and efficient labor market, will also be crucial. By 2028, Filipinos will have enhanced income-earning ability that can better support their aspirations to have a stable and comfortable lifestyle, secure in the knowledge that they have enough for their daily needs and unexpected expenses.

This chapter presents the challenges in increasing income-earning ability and the outcomes to be pursued to address these challenges during the Plan period. These outcomes are as follows: (a) employability increased; (b) access to employment opportunities expanded; and (c) shared labor market governance achieved.

Assessment and Challenges

The Philippines' labor market from 2010 to 2019 was vibrant, leveraging on advances in policy execution. However, the coronavirus disease (COVID-19) pandemic reversed its gains. In 2010–2019, net employment generation (+7.9 million) outpaced the increase in labor force (+6.8 million), raising real wages and productivity. In 2020, as the pandemic stalled economic activities, unemployment rose to a high of 10.3 percent, leading to an additional 2.2 million workers unemployed. In response, the government initiated the Philippine Program for Recovery with Equity and Solidarity and National Employment Recovery Strategy, which provided health, mobility, and financial interventions to firms and disadvantaged households. It served as vital platforms for subsequent initiatives.¹

The labor market shows signs of recovery, but the quality of jobs remains a concern.

In 2021, the labor force participation rate (LFPR) increased to 61.4 percent after dipping to 59.5 percent in 2020. The LFPR improved further to 63.3 percent in 2022.² The unemployment rate eased to 8.0 percent in 2021, decreasing further to 5.4 percent in 2022. At the same time, the number of wage and salary workers has also been increasing, growing by 7.6 percent (+2.0 million) and constituting 63.2 percent of total employment in 2022. However, the proportion of vulnerable employment (i.e., self-employed and unpaid family workers) to total employment remains high at 34.1 percent in 2022. Moreover, underemployment persists, remaining elevated at 14.2 percent in 2022 despite the improvement from 17.6 percent in 2021 and 16.2 percent in 2020.

Skills mismatch remains a concern despite the convergence of demand and supply structures. The skills demand associated with the country's economic structure and the skills supply reflecting the educational attainment of the workforce are slowly becoming better aligned. In recent years, with rapid employment growth in high-skilled service industries, manufacturing, and construction, the oversupply of high-skilled workers at the aggregate level was reduced. Nevertheless, a mismatch remains as the education and training systems have yet to align with the skills demanded in the labor market.

Employment continues to be disrupted through the compounded effects of automation and climate change, rendering certain jobs and roles obsolete. The labor market faces megatrends such as the Fourth Industrial Revolution, climate change, and the lingering COVID-19 pandemic. All the megatrends have varying skill implications for the Filipino workforce. Year-to-date 2022 data from the Labor Force Survey (LFS) show that 28.5 percent of employed workers are in elementary occupations, which are at greater risks of automation and digitalization.

Although youth employability has improved, full-cycle employment interventions still need to be fully integrated. The COVID-19 crisis has resulted in multiple shocks for the youth—including disruptions in their education and training, employment, and earnings, and increased job search constraints. These shocks mark

today's youth as a “lockdown generation” and underscore the possibility that the pandemic could weaken future labor market prospects of the younger workforce.

As more return to school, the youth not in education, employment, or training (NEET) rate shows signs of easing at 13.1 percent year-to-date from 18.5 percent in 2020 and 16.6 percent in 2021. The youth unemployment rate also eased but remains elevated at 12.6 percent from a high of 21.5 percent in 2020 and 16.6 percent in 2021. The youth continue to face challenging employment prospects, resulting in persistent inactivity rates in education, training, and employment.³

Emerging digital careers pose unique demands and challenges, especially in the fast-growing platform economy. Recent international assessments, such as the World Digital Competitiveness Ranking 2022, paint a weak country profile in terms of digital competitiveness and digital skills.⁴ The Philippines lags behind its regional peers in terms of foundational digital skills.⁵ Technological change continues to modify the task content of jobs, leading to nonstandard work arrangements or increased demand for managerial, technical, and digital skills and qualifications. The pandemic also marked a boom in the gig economy due to the shift to digital platforms and increased reliance on gig workers to home-deliver necessities to consumers. The gig economy offers job flexibility that is more appealing and increasingly becoming necessary to workers.

Strategy Framework

Figure 4.1 Strategy Framework to Increase Income-earning Ability



Strategies

The strategy framework (See Figure 4.1) highlights the importance of educational qualifications, training credentials, skills, and competencies that enhance employability. It also emphasizes the need

to strengthen interventions that improve access to employment opportunities. Lastly, it underlines the need to improve labor market governance, with an emphasis on collaboration and shared responsibility.

Outcome 1: Employability increased

In light of the current and emerging challenges in the labor market, the government will further strengthen its efforts to raise the quality of human resources and

ensure that the current and future workforce can adapt to the changing demands of the labor market. These will be achieved through the following strategies:

Align development objectives for basic, technical and vocational education and training (TVET), and higher education based on labor market requirements

Achieving curricular alignment informed by labor market trends and complex transformations in strategic sectors, can foster better learning outcomes and better school-to-work transitions. Skill formation is linked to a life-cycle process, not a static, one-shot endeavor involving many factors that pertain to labor market conditions and policies, home and school environments, parental education, investment propensity, household resources, and constraints, to name a few (See *Subchapter 2.2*). Hence, a whole-of-society approach is needed to enable Filipinos to possess competencies and qualifications, including green competencies that enhance their capacity to achieve desired employment and mobility outcomes and better respond to economic opportunities.⁶

Update contents of training standards, modules, and curricula for human capital development based on emerging, in-demand, and hard-to-fill occupations in identified key employment generators

In developing training modules, the government will consider the transferability of skills. Common competencies in training regulations⁷ shall be upgraded, reflecting economic transformation. In other countries, occupational profiles already reflect interdisciplinary competencies (See *Subchapter 2.2*).

A comprehensive assessment of key TVET programs, credentialing mechanisms, and company-based training shall be undertaken by key agencies to ascertain program effectiveness and inform quality assurance

mechanisms. Skills standards, competency assessments, and certification shall be benchmarked with international standards. The government shall improve the criteria for admitting private technical vocational institutions (TVI) to ensure that new programs match the complexities of sectoral economic transformation. Human resource development and planning improvements shall be implemented to keep up with the demand for quality instruction. The feasibility of establishing a market of competencies to address emerging skills needs in the short term shall be explored (See *Subchapter 2.2*).

Develop modern and responsive TVET, apprenticeships, and higher education aligned with emerging trends or demands in the labor market

Technical and vocational education and training shall focus on modalities emphasizing cost-effectiveness, incentive compatibility, and employability. The government shall explore ways to incentivize the participation of industry and private companies in TVET programs, particularly enterprise-based training (EBT). Moreover, the government shall explore cost-sharing mechanisms between private firms and current and/or potential employees when designing training contracts. The government shall pursue the development of forward-looking systems that anticipate emerging skills and educational qualifications and complement industry efforts to inform training regulation development (See *Subchapter 2.2*).

The government shall conduct policy reviews of enterprise-based modalities. In addition, the government shall advocate for amendments to existing apprenticeship law,

which modernizes applicable provisions of the Labor Code to enhance employability.

Increase investments in TVET human resources, higher education, digitalization initiatives, and innovation facilities

Modernizing TVET facilities and enhancing educational qualifications, competencies, and skills are necessary to respond to the emergence of new competencies and skills demands due to economic and technological transformations (*See Subchapter 2.2*).

The establishment of TVET Innovation Centers has already started in some parts of the country. Regional TVET Innovation Centers will generate benefit streams for regional economies. They can complement the delivery of area-based-demand driven TVET programs, synergizing with countryside digital learning initiatives by the Department of Information and Communications Technology. The government shall promote the role of community training and employment coordinators (CTEC) in monitoring and addressing local skills needs. The government shall also institutionalize CTEC to support devolution strategies of the Technical Education and Skills Development Authority (TESDA).

The government shall enhance the quality of TVET human resources by improving qualification and competency requirements and updating training requirements. Improvements in human capital profiles can be achieved through increased utilization of scholarship funds intended for upskilling and reskilling.

Develop and promote a national policy for lifelong learning

Lifelong learning enables all citizens to adapt to social and technological changes. With present vulnerabilities and uncertainties of the future, lifelong learning programs need to be informed of emerging trends, flexible yet connected, certifiable to standards, and industry-related (*See Subchapter 2.2*).

The life-long learning and skills ecosystem hinges on operationalizing the Philippine Qualifications Framework (PQF). Therefore, the government will strengthen the PQF National Coordinating Committee and its governance structure, establish the PQF Secretariat, enable budgetary support mechanisms for institutionalized activities, implement pilot projects, develop monitoring and evaluation mechanisms, and make necessary revisions to the PQF.⁸ The national government shall also conduct studies to measure qualification progression contributions to income-earning ability.⁹

The government shall sustain efforts to develop a master plan for institutionalizing lifelong learning beyond formal education.¹⁰ It shall encourage local government units (LGU) to plan and integrate lifelong learning programs to transform their jurisdictions into learning communities.¹¹ One important aspect of this initiative is that by institutionalizing governance mechanisms and awareness campaigns that advance lifelong learning initiatives, LGUs can promote inclusive learning in the workplace and foster a culture of learning among its constituents.

Increase awareness of the Philippine Qualifications Framework and Philippines Skills Framework

Employers may proactively convey how changing workplace requirements should be integrated into academic curricula and training regulations. Employers should utilize the PQF Registry of Qualifications to better plan staffing requirements and understand how to design jobs. Incorporating PQF and Philippines Skills Framework (PSF) provisions and standards is needed to ensure industrial transformation that is sustained by responsive human capital and skills development strategies. Employers, industry organizations, and educational institutions may engage in skills-occupations mapping to remediate skills inadequacies and foster job mobility.

Establish skills assessment mechanisms and certification programs to recognize prior learning

Recognition of all types of learning and an individual's knowledge, skills, and experience can provide an opportunity for people to acquire qualifications or credits without going through a formal education or training program.¹² The key characteristics of micro-credentials include limited time engagement, which is potentially integral to formal qualifications, stackable, flexible, and coming in digital form. The government shall study the establishment of a national micro-credentials marketplace as part of emerging initiatives to promote lifelong learning (*See Subchapter 2.2*).

Online learning has become one of the dominant ways to achieve competencies, so a system must leverage available technologies that facilitate digital accreditation. Blockchain technology can be used to safeguard the integrity of earned digital certificates or

badges. Coordination with micro-credential providers including companies, industry associations, online learning platforms, non-government organizations, and international organizations is also seen as imperative, together with the eventual integration of such micro-credentials in the PQF and PSF. A competency-based system will be developed through which workers and labor entrants are awarded micro-credential via training or recognition of prior learning.

Strengthen collaboration with industry boards and industry associations in TVET

Achieving lifelong learning and skills development objectives across industries can be facilitated by industry boards and industry associations. This can encourage more industry involvement in providing high-quality TVET and shaping globally oriented human resources.

Taking off from experiences in establishing tourism and construction industry boards, the national government shall organize industry boards¹³ in key or strategic sectors identified by the National Technical Education and Skills Development Plan and the PSF Initiative. It shall capacitate industry boards in skills anticipation, certification design, and training regulation formulation. Industry boards and associations shall also work to establish professional standards for emerging occupations.

Align professional standards and licensure examinations with international standards

The labor mobility of professionals has been driven by robust demand for talent overseas on account of skill-biased technological change. The government

shall continue improving professional standards in all regulated professions and ensure that licensure examinations are aligned with international standards. The government shall maximize the recognition of Philippine professions by benchmarking with international standards and improving the quality of education, training, and skills development (See Subchapter 2.2).

Strengthen public-private partnership on TVET

While the government formulates policies that govern TVET programs and prescribe acceptable qualities of TVI, greater participation of private TVI is needed to enhance the quality and effectiveness of curricular delivery. Stronger partnerships between high-quality, better-capacitated, and well-staffed TVI and the government may be formed and sustained with the right policies and incentive systems. Private TVI may form networks within select curricular areas to

promote program efficiency and relevance, improve quality access, share information about curricular design, and develop lifelong learning processes. With government direction and guidance, key industry players may form centers of training excellence to help adapt to changing industry conditions and address emerging skills needs.

Intensify participation in youth employability programs

Educational institutions shall proactively seek effective interventions or programs that promote employability, particularly those in senior high school. Establishing partnerships between local state universities and colleges, local universities and colleges, high schools, and TESDA can improve the effectiveness of area-based skills interventions. Moreover, the private sector can help design curricula, institutionalize feedback mechanisms, and provide orientations on recruitment strategies.

Outcome 2: Access to employment opportunities expanded

Ensuring that employment opportunities are made available and accessible to all workforce members is critical to the objective of increasing income-earning ability. This shall be achieved through the following strategies:

Integrate and strengthen all employment facilitation services, including career development support

With technical assistance from the Department of Labor and Employment (DOLE), the Public Employment Service Offices (PESOs) can potentially transition to offering a full range of employment, career

counseling, and training services for specific in-demand skills through a partnership with TESDA and educational institutions. Moreover, the government shall integrate all employment program monitoring systems, career development support, and labor market information systems in the PhilJobNet to provide a complete employment journey for target clients. Returning Overseas Filipinos will also have access to these services, facilitating their integration back to the domestic economy.

The PESOs can facilitate worker mobility and inform national interventions.

Strengthening linkages among PESO centers can create a hub of information exchange on best practices in employment facilitation. Information from a PESO network can be fed into a system capable of processing inputs for generating labor market intelligence, allowing national policymakers to rapidly assess local conditions during periods of national emergency.¹⁴ Labor mobility can also be enhanced by creating a PESO portal, highlighting the ability of PESOs to facilitate labor reallocation across regions.

The government shall ensure that PESOs can deliver vital services mandated by local ordinances and national laws. In addition to their employment facilitation or job brokering function, PESOs implement key legislative initiatives and programs such as the First-Time Jobseekers Assistance Act¹⁵ and JobStart Philippines.¹⁶

Maximize the utilization of public employment service offices

Continued business engagement remains critical for improving the performance of PESOs. To ensure the maintenance, expansion, and promotion of PESO services, increased allocation of local budgets may be necessary. Moreover, better utilization of PESOs would result in improved facilitation efficiency and visibility. To respond more effectively, LGUs can consider investing in digital platforms that automatically update the state of local labor markets and highlight job trends. Similar platforms can also be made more responsive to the needs of PESO constituents by facilitating registration, access, and application.

Strengthen technical capacity to develop dynamic and responsive labor market information systems

Investing in dynamic labor market information systems (LMIS) will result in efficient information flow, better skills anticipation, and competency forecasts. Timely delivery of labor market information services requires forward-looking information systems. In addition, the government can leverage digital technology by mapping changing skills and qualifications, as well as identifying pathways to improving competencies through a framework for classifying similar jobs or occupations. Such mapping could enhance job mobility.

The PhilJobNet is envisioned as a one-stop-shop for labor market information, allowing employers to post vacancies, and workers to search for jobs. As the premier source of labor market information, the PhilJobNet shall evolve into a real-time system that interconnects local labor market information networks.

Provide updated labor market information to PhilJobNet

Unregistered employers can consider enlisting as part of PhilJobNet to avail of the services, such that labor search costs can be reduced and staffing needs can be addressed. Moreover, the participation of employers can contribute to local development by enriching labor market intelligence. Linking to PhilJobNet improves the data quality and ensures proper characterization of local labor market conditions. Industry associations can also explore ways to reliably and securely link systems that continuously provide updates.

Anticipate skills needs in priority sectors

With digital and economic transformations in key industries underway, demand for updated and new technical regulations, job-aligned curricula, and training materials has increased. Identifying and anticipating skills needed for priority sectors of the economy shall precede training decisions so that skills required are relevant for the labor market. For example, to align with the agricultural sector transformation, the government will anticipate and address the implications from mechanization, diversification, bio-based inputs production, and waste management. As the transformation in the industry intensifies, demand for social (collaboration and teamwork); cognitive (strategic problem solving, agility, and adaptability); and specialized skills (data analysis, content creation, and storytelling) will be high. The reinvigoration of services will also increase demand for a myriad of cognitive, social, technical, transversal, management, specialized, and other emerging skills or competencies. In the high-technology sector, upskilling and reskilling initiatives can focus on advanced manufacturing, robotics, artificial intelligence, the Internet of Things, and blockchain.

Share and disseminate information on emerging, critical, and in-demand skills

As technology transforms the workplace, the government's social partners shall update key stakeholders. For example, investing in private labor market assessment tools and information systems can be helpful for firms to anticipate and relay emerging skills requirements, inform educational, training, and skills policies, and enhance market interventions, including in terms

of timeliness. Moreover, employers, worker associations, and industry groups can consider participating proactively in sectoral bodies to facilitate the exchange of ideas and enhance communication flow.

Intensify employment programs for the youth, marginalized, disadvantaged, and vulnerable sectors

TVET can be promoted to address the high incidence of youth NEET. Forming tight linkages between educational institutions, skills development authority, and PESOs can mitigate search frictions and mismatches, as information on active labor market programs can be efficiently cascaded to education providers. For example, the Special Program for Employment of Students can be reviewed to rationalize the targeting and selection of grantees, and to align program outcomes with lifelong learning objectives. In addition, the JobStart Philippines program shall be intensified to accommodate more participants from disadvantaged, marginalized, and vulnerable groups. The Career Development Support Program, which aims to provide career support to individuals, makes use of timely and relevant information on the dynamics of labor markets to address gaps in employability dimensions (i.e., personal and environmental factors, job search skills, skills gaps).¹⁷

Develop programs and policies that address all forms of labor market discrimination in work, education, and training

The government shall conduct impact assessments of policies, laws, and institutions designed to promote equality. Besides employment facilitation, policies shall be aimed at labor market issues such as

gender, context-specific barriers, such as transportation constraints, security, technological capacities, and discrimination.

The government shall explore the development of a framework that can progressively eliminate discrimination between full-time and part-time workers. Pathways shall also be considered for workers transitioning from part-time to full-time status or vice-versa.

Provide emergency employment and training support to displaced workers due to human-induced disasters and natural calamities

Active labor market programs, such as emergency employment and training support, are needed to build and enhance

resilience of displaced workers. Two notable active labor market interventions include the provision of emergency employment for displaced workers (*Tulong Panghanapbuhay sa Ating* Disadvantaged/Displaced Workers or TUPAD) and the Training for Work Scholarship Program. DOLE and TESDA continue to roll out employment and national certification skills training packages to calamity-prone areas to ensure social safety net and employment opportunities for affected residents.¹⁸ Further, in connection with the implementation of livelihood training programs, DOLE and TESDA shall study the convergence of their livelihood training programs and community-based training programs, respectively, to avoid duplication.

Outcome 3: Shared labor market governance achieved

Attaining the objective of increasing income-earning ability is a shared responsibility among the government and social partners (i.e., private sector, civil society organizations, academe, workers organizations, and other stakeholders). This will be achieved through the following strategies:

Harmonize skills development programs in the government

Multiple skills development programs underscore the importance of designing cost-effective and optimal interventions. The creation of an inventory of all training programs shall pave the way toward the convergence of programs with similar objectives; thus, maximizing the impact of these programs on intended stakeholders. Impact evaluation studies to determine the

degree of program effectiveness and identify areas of reform shall be conducted.

Strengthen linkages and collaboration among government and industry associations, enterprises, and social partners to emphasize shared responsibility in promoting and implementing employment policies and strategies

Sustaining an education, training, and lifelong learning ecosystem hinges on the dynamic interaction among social partners. The government shall sustain and strengthen partnerships with industry associations, workers' organizations, and other institutions to improve feedback mechanisms, promote innovative practices, complement efforts to operationalize the PQF and PSF Initiative, improve skills anticipation and certification, and deliver in-factory consultations and

practical workplace training. Part of the modes will include TESDA linkages with higher education institutions for courses to be offered in summer, wherein graduates will not just receive a baccalaureate degree but also a National Certificate, which in turn enhances their skills and employability, thereby enhancing their income-earning ability.

Advocate and strengthen tripartite and bipartite social dialogue

Transitioning from routine-biased to skill-biased technological change has considerable implications for working conditions, job tasks, and responsibilities. With its social partners, the government shall update the social dialogue plan to emphasize the role of megatrends such as digitalization, automation, and climate change, including how they affect the firm organization, skill composition, qualifications, working conditions, health, and safety.

Tripartite sector skills bodies are important mechanisms for matching the sector demand for skills training, anticipating the future labor market, and addressing the adverse effects of digitalization, climate change, and globalization. To make LMIS more dynamic and forward-looking, the government shall institutionalize systematic stakeholder engagement with social partners to focus on skills anticipation systems and policy development.¹⁹

Design mechanisms to ensure inclusive participation and equitable access to education and skills development programs

Sustaining an education, lifelong learning, and skills ecosystem require responsive and innovative policies and mechanisms to

oversee programs and anticipate problems or supply bottlenecks. The government shall remain proactive in formulating innovative and effective interventions that enhance income-generating ability throughout the worker's life cycle, especially those of the vulnerable groups and communities. Thus, assessing the capacity of labor administration to maintain such an ecosystem shall be prioritized. The government shall evaluate the mandate of the skills development authority given an environment continuously shaped by climate change, automation, and increased digitalization.

Ensure effective and efficient use of existing tripartite wage and productivity mechanisms

The minimum wage shall be used to protect the lowest and most vulnerable wage earners from poverty. Adjustments above the minimum wage shall be based on enterprise performance and labor productivity. In this regard, the government shall continue to provide technical assistance to workers and enterprises in designing and implementing productivity-based incentive schemes to increasingly link workers' compensation and labor productivity.

Mainstream gender and green competencies

Climate change affects the future world of work and greening the economy will inevitably create new jobs that can abolish other jobs. Therefore, the government shall intensify creating a database of green jobs, implement the Green Jobs Human Resource Development Plan, and intensify the integration and mainstreaming of green competencies in TVET and education

programs. Furthermore, to achieve consistency, the government shall revisit the PQF for proper integration of environmental sustainability and green qualifications as an objective.

Key stakeholders shall ensure stability in the macroeconomy, adequacy of investments in green sectors, feasibility of creating green ecozones, and sustainability of human capital investments. Because of job dynamics in identified green sectors, adequate levels of social protection shall be in place to address the just transition of unskilled workers. As economies become more involved in greening processes and structures, those who belong to brown occupations may need assistance transitioning to other occupations.

While the country's female LFPR has been slowly improving from the previous years, there is still a need to intensify efforts, such as addressing gender bias and gender role stereotypes in basic and higher education materials, promoting entrepreneurship, and advancing economic opportunities for women, through harnessing digital technologies.

[Integrate lifelong learning processes in human resource development programs](#)

Employers are enjoined to recognize prior learning outcomes obtained in micro-formal or formal training and provide relevant training to employees. Integrating lifelong learning processes ensure that both employers and employees benefit from

learning dividends in the form of better corporate performance, productive employee engagement, and enhanced well-being.

[Create awareness of TVET programs implemented by the government](#)

The TVI can formulate marketing strategies to promote jobs that only TVET programs render achievable. For example, within TVI networks, participants may need to organize skills fairs or competitions, showcasing technical capabilities and other attributes. Moreover, TVI can create digital platforms that popularize TVET programs, focusing on sustaining the economy's ability to cater to emerging skills. More importantly, TVET programs shall be projected as vital initiatives for advancing the country's economic interests and development.

[Actively participate in government-industry associations promoting and implementing employment and skills development policies and strategies](#)

Social partners can participate in capacity-building programs sponsored by the government. Such programs help develop skills needed for sustaining engagement in social dialogues and solving problems. Social partners shall also be independently able to undertake comprehensive sector assessment and understand the implications of megatrends such as automation, climate change, and the ongoing pandemic on industry or sector outcomes.

Legislative Agenda

Table 4.1 presents the priority bills for the 19th Congress to increase income-earning ability.

Table 4.1 Legislative Agenda to Increase Income-Earning Ability

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Revised National Apprenticeship Program; Enterprise-Based Education and Training to Employment Act	Harmonize the existing enterprise-based training (EBT) modalities and expand the provision of training programs being implemented within companies which can be a mix of workplace training and classroom-based learning. Institute further reforms on the apprenticeship program to make them more attractive to both the enterprises and the prospective apprentices, promoting skills acquisition and youth employment.	Technical Education and Skills Development Authority (TESDA)
<i>Jobs Creation Strategy Bill</i>	Create an Inter-Agency Council for Jobs and Investments co-headed by the Department of Trade and Industry, Department of Labor and Employment (DOLE), and TESDA, with representatives from employers' organizations and labor groups; and establish working groups that will focus on developing employment recovery and job creation in specific industries and emerging sectors, such as but not limited, to construction, tourism, agriculture, information technology and business process management, and manufacturing.	DOLE
Lifelong Learning Development Bill	Develop a Lifelong Learning Development Framework through the Philippine Qualifications Framework-National Coordinating Council (PQF-NCC). The PQF-NCC shall determine and set standards for developing action components and desirable success measures for promoting lifelong learning in cities, municipalities, and educational institutions.	DOLE
Enterprise Productivity Act (Amendments to Productivity Incentives Act)	Fortify the intentions of the "Productivity Incentive Act of 1990" by promoting inclusive and sustainable work productivity programs. The Act aims to reinforce labor productivity by: (a) establishing a Productivity Incentives Committee; (b) adopting productivity incentive programs; (c) granting productivity incentives to employees; and (d) providing a tax incentive to business establishments for granting incentives to employees.	DOLE

Results Matrix

Table 4.2 presents the indicators and targets to increase income-earning ability.

Table 4.2 Results Matrix: Increase the Income-Earning Ability

INDICATOR	BASELINE	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2026	2028		
Intermediate goal: Income-earning ability increased									
Outcome 1: Employability Increased									
Proportion of employed college graduates in elementary occupations (%) decreased	2.7 [2020]	1.50-1.73	1.50-1.73	1.50-1.73	1.50-1.73	1.50-1.73	1.50-1.73	Labor Force Survey (LFS)	Social Development Committee (SDC)
Percentage of youth not in employment, education, or training (%) reduced	12.6 (average for Jan, Apr, Jul, Oct, 2022)	12.8-14.8	12.5-14.5	12.2-14.2	11.9-13.9	11.6-13.6	11.3-13.3	LFS	SDC
Technical Education and Skills Development Authority (TESDA) certification rate in priority sectors (%) increased	92 [2021]	92	92.5	93	93.5	94	94.5	TESDA Data	TESDA

INDICATOR	BASELINE	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2026	2028		
Employment rate of TVET graduates ^a (%) increased	93.4 (average for Jan, Apr, Jul, Oct, 2022)	94-96	94-96	95-96	95-96	95-96	95-96	LFS	SDC
Proportion of employment in middle- and high-skilled occupations (%) ^b increased	71.4 (average for Jan, Apr, Jul, Oct, 2022)	72.3	73.0	73.8	74.53	75.3	76.1	LFS	SDC
Number of training regulations, curricula, and courses with green core competencies ^c increased	81 (2021)	89	98	108	119	131	144	TESDA	TESDA
Outcome 2: Access to Employment Opportunities Expanded									
Female labor force participation rate (%) increased	51.7 (average for Jan, Apr, Jul, Oct, 2022)	51.0-53.0	51.5-53.5	52.0-54.0	52.0-54.0	52.0-54.0	52.0-54.0	LFS	SDC
Placement rate (%) of public employment service offices increased	91 (Sep. 2022)	91	91	91.2	91.3	91.4	91.5	DOLE data	DOLE
Percentage of educated ^d unemployed to total unemployed (%) reduced	38.0 (average for Jan, Apr, Jul, Oct, 2022)	35-37	35-37	35-37	30-35	30-35	30-35	LFS	SDC
Outcome 3: Shared Labor Market Governance Achieved									
Percentage of total number of establishments (%) provided with technical assistance that installed or enhanced productivity performance-based incentive schemes	12 (2021)	10-12	10-12	12-15	12-15	15-17	15-17	DOLE data	DOLE
Percentage of trained micro, small, and medium enterprises (%) that implemented productivity improvement program	69 (2022)	69-70	69-70	70-75	70-75	70-75	70-75	DOLE data	DOLE

^a Baseline figure is computed using the identified post-secondary graduates from the LFS.

^b Excluding elementary and armed forces occupations based on the definition of International Labour Organization. ILOStat Variable Levels. <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ilo.org%2Filo-stat-files%2Fisco%2Fnewdocs-08-2021%2FISCO-08%2FISCO-08%252088%2520EN%2520Skills%2520.xlsx&wdOrigin=BROWSELINK>

^c Number of training regulations and competency standards with green competencies, including newly developed and reviewed.

^d Includes those with college education (undergraduates and graduates).

- ¹ In 2022, Senator Joel Villanueva proposed Senate Bill 129 (19th Congress) known as the Trabaho Para sa Lahat Bill. This Senate Bill institutionalizes the National Employment Action Plan, which is an offshoot of the NERS.
- ² Fiscal year 2022 figures are based on the quarterly LFS result, i.e., January, April, and July 2022.
- ³ Orbeta et al. (2021) "Who Are the Youth NEET in the Philippines Today?" Discussion Paper Series No. 2021-21. Quezon City: Philippine Institute for Development Studies.
- ⁴ The Philippines (rank: 56) lags behind Indonesia (51) and Thailand (40). See IMD World Competitiveness Center. (2022) World Digital Competitiveness Ranking. <https://www.imd.org/centers/world-competitiveness-center/rankings/world-digital-competitiveness/>.
- ⁵ See pages 14–15 in Department of Information and Communications Technology. Connect, Harness, Innovate, and Protect Implementation Plan. Quezon City.
- ⁶ Based on the definition of employability in Chapter 2 of International Labour Organization (ILO). 2021. Shaping Skills and Lifelong Learning for the Future. Geneva.
- ⁷ Training regulations serve as the bases for developing competency-based curricula and instructional materials as well as competency assessment tools. They define the competency standards for national qualifications.
- ⁸ The World Bank. (2021) A Review of the Philippine Qualifications Framework: Toward Improved Skills Recognition and Mobility. Washington, DC. <https://openknowledge.worldbank.org/entities/publication/40da4689-9f8a-58b6-bac0-5005d6fe03b9>.
- ⁹ Daquio. (2021) Differentiation of Pay Scales Across Levels of TVET Qualifications in the Construction Industry.
- ¹⁰ One of the main objectives of Senate Bill No. 129 is establishing learning cities and municipalities.
- ¹¹ This strategy is similar to Germany's Learning Regions Promotion of Networks, which later became the Learning in Place program. Both programs are designed to transform cities and/or regions into learning cities and/or regions.
- ¹² ILO. (2018) Recognition of Prior Learning (RPL): Learning Package. Geneva.
- ¹³ Technical Education and Skills Development Authority. (2021) Implementing Guidelines for Pilot Implementation on the Establishment of Industry Boards. TESDA Circular No. 017, s. 2021. Taguig.
- ¹⁴ This is one of the objectives of the proposed Senate Bill No. 49 authored by Senator Jinggoy Ejercito Estrada.
- ¹⁵ The First Time Jobseekers Assistance Act seeks to help first-time jobseekers secure pre-employment documents that will lessen their financial burden in obtaining said documents.
- ¹⁶ JobStart Philippines is designed to provide opportunities to at-risk youth, who are provided with life skills training, career guidance and coaching, technical internships, and training with private sector employers.
- ¹⁷ ILO and European Training Foundation. (2021). Koeltz and Torres. 2016; and Fasrul and Torres. 2021
- ¹⁸ See Department of Labor and Employment–Technical Education and Skills Development Authority. DOLE-TESDA Joint Memorandum Circular No. 001-2022.
- ¹⁹ See Chapter 4 of ILO. (2021). Shaping Skills and Lifelong Learning for the Future. Geneva.

PART III

**Transform
Production
Sectors to
Generate More
Quality Jobs
and Competitive
Products**

05

Modernize Agriculture and Agribusiness



Modernize Agriculture and Agribusiness

Recognizing that the agriculture, forestry, and fisheries (AFF) sector is part of a bigger agri-food system, the Plan will be guided by transformative ideas, which will involve (a) addressing the systemic ills of AFF through a whole-of-value-chain approach that considers AFF production as tightly linked to processing, marketing, consumption, and waste management; (b) restoring the local food culture toward improving agri-food system resiliency, empowering local farmers, and linking AFF production to consumer nutrition and health of the environment; and (c) opening up more opportunities in the blue economy to leverage and optimize the country's vast coastal and marine resources and maritime domain.

In the next six years, sound agricultural development through holistic agri-food system measures espoused in the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP) 2021-2030 will be pursued, with the ultimate objective of raising the level of income of primary producers (i.e., farmers and fisherfolk) beyond the poverty threshold.

This chapter presents the challenges facing agriculture and agribusiness, and the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) efficiency of agriculture, forestry, and fisheries production enhanced; (b) access to markets and agriculture-, forestry-, and fisheries-based enterprises expanded; (c) resilience of agriculture, forestry, and fisheries value chains improved; and (d) agricultural institutions strengthened.

Assessment and Challenges

The existing agri-food system has been dysfunctional in serving its basic roles in (a) generating decent income for the sector's stakeholders, particularly primary producers; (b) ensuring sustainable use of natural resources; and (c) providing for the health and nutrition of consumers and nurturing the local food culture (*See Subchapter 3.1*).

While the country has made some progress in reducing poverty prior to the pandemic, primary producers remain to be the poorest among the basic sectors.¹ The previous gains may be further eroded as the sector bears the brunt of multidimensional shocks arising from natural and biological hazards (e.g., pandemic, Avian Influenza [AI], and African Swine Fever

[ASF]) and global economic headwinds. These may also further weaken the sector's poor economic performance in the previous Plan period. As of the third quarter of 2022, AFF only grew by 0.8 percent.

The sector's sustainability is also threatened by unsustainable farming and fishing practices that deplete the resource base (terrestrial, coastal, and marine) and exacerbate pollution, amidst a changing climate (*See Chapters 2.3 and 15*). The AFF production relies on natural capital as inputs, especially land and water resources; at the same time, it contributes to its degradation. For instance, agricultural run-off continues to be one of the major non-point sources of water pollution.² The country's land degradation

hotspots cover 1,910,478 hectares (ha), resulting from unsustainable farming practices that affect soil quality, among other factors. Further, the agri-food system is one of the major sources of greenhouse gas emissions, contributing to global warming. Meanwhile, the inability of the agri-food system in meeting the country's nutritional requirements emanates from a lack of scientific knowledge about human nutrition. The result is an unsustainable consumer behavior that has high preference for consuming low nutritional value commodities and imported products.

These challenges contribute to the following inefficiencies along various segments of the value chain, which continue to hamper the potential of the country's agriculture and agribusiness sector:

- **Low farm/labor productivity.** The Philippines is still considered to have a low level of mechanization at 1.23 horsepower (hp)/ha for all crops.³ While there have been some improvements in the level of mechanization for rice—from 2.31 hp/ha in 2011 to 3.77 hp/ha in 2019—the country still lags behind our Asian neighbors.⁴ This indicates that primary production is still greatly dependent on manual labor, which is inextricably linked to poor adoption of modern agricultural and fishery technologies and limited extension services. In addition, the low share of AFF research, development, and extension (RDE) programs in the budget of the Department of Agriculture (DA) undermines the significance of developing technologies and disseminating sustainable farm and fishery management practices.
- **Low access to credit and insurance, particularly among smallholder primary producers, due to challenges emanating from both the supply and demand side.** Supply-side challenges on formal credit for the sector include: (a) limited physical network of banks and other formal lenders in rural areas; (b) perceived high risks in agriculture due to lack of familiarity or understanding of agricultural markets and borrowers as well as frequent occurrence of extreme weather events; (c) inadequate institutional capacity of lenders which limits assessment of the sector's projects for financing and designing of suitable loan products. On the other hand, demand-side constraints include: (a) high borrowing costs due to distance from bank; (b) weak financial literacy among borrowers; (c) inability to prepare financing proposals and documentation requirements; and (d) lack of collateral, especially for the agrarian reform beneficiaries (ARB) still under collective Certificate of Land Ownership Award (CLOA). Moreover, agricultural insurance provision is limited, mainly due to the minimal participation of private insurance companies and the low awareness of primary producers on the available risk insurance products and the benefits of availing them.
- **Unsustainable farming practices and underutilized agro-forestry and blue economy potential.** Land-based agriculture is still largely characterized by monoculture and low adoption of improved technology. Most of the country's agricultural land areas are devoted to the production of traditional crops, such as *palay* (32%), coconut (24.3%), and corn (17.1%).⁵ Meanwhile, subsistence farming and poor market access in upland areas hinder the country's agro-forestry output. With respect to coastal and marine resources,

illegal, unreported, and unregulated fishing continues to be a challenge. Moreover, designated mariculture parks offering opportunities for greater fisheries production remain underutilized.⁶

- **Weak export performance.** The value of AFF exports declined by 13.9 percent in September 2022 compared to the same period in the previous year. The lack of diversity in the country's AFF exports, which comprise mostly raw materials and semi-processed products, makes it susceptible to disruptive changes in the market and price volatility.
- **Weak investments in the AFF sector.** Total investments in the AFF sector contracted by an average of six percent annually from 2017 to 2022. This stems from the prevailing challenges in the sector which erodes investor confidence. These include high logistics cost, lack of scale of local raw material suppliers, and low conformance of primary producers to local and international standards. Further, the incomplete land ownership transfer—with a significant balance of lands under collective ownership—adds to the perceived risks of the private sector in investing in agriculture.
- **Inadequate infrastructure.** Investments on public goods for the AFF sector have been inadequate or have not been rationalized, which aggravate the challenges related to high logistics and marketing costs and huge postharvest losses. Moreover, irrigation investments were mainly focused on areas geared toward rice-based production systems. There has been low support for small-scale irrigation needed in high-value crops (HVC) production.⁷ Further, many existing irrigation systems require rehabilitation or restoration to improve

efficiency and retrofitting to ensure climate resiliency (*See Chapter 15*).

- **Fragmentation of agricultural lands.** While the total number of farms increased by two-thirds, the average farm size fell from 3 ha in 1980 to 0.9 ha in 2012 due to the redistribution of lands under the Comprehensive Agrarian Reform Program (CARP) and transactions/activities involving non-CARP lands (particularly, the sale of these lands), among other factors.⁸ Property rights still needs to be settled, with almost half of the ARBs still covered by collective ownership certificates. Insecure property rights contributed to limited on-farm investments and farmers' access to support services.
- **High vulnerability to multidimensional shocks.** The geographical location and physical environment of the Philippines make it susceptible to typhoons, earthquakes, and volcanic eruptions, among others, causing huge damage and losses to the agriculture sector. Rising temperature also threatens the AFF sector due to its effect on the physiology and reproduction of pests. In recent years, the sector has also been greatly affected by the disruptions in supply chains due to the (a) imposition of community quarantines to limit the spread of COVID-19; (b) ongoing conflict between Russia and Ukraine which has raised prices of fuel, feeds, and fertilizers, driving inflation in our key food commodities (*See Chapters 3.1 and 15*); and (c) other shocks emanating from domestic armed conflict and territorial disputes (*See Chapter 13.1*).

Weak governance and convergence among agricultural institutions/rural development agencies further aggravate these challenges.

The implementation of policies, programs, and projects has been complex and difficult considering the large DA bureaucracy.⁹ Limited convergence with other government agencies—including the Department of Agrarian Reform (DAR), Department of Environment and Natural Resources (DENR), Department of the Interior and Local Government (DILG), Department of Trade and Industry (DTI), and Department of Science and Technology (DOST)—led to a fragmented and unresponsive approach toward agricultural development. Exacerbating these issues is the inadequate interface between DA and local government units (LGU), which affected the implementation of devolved agricultural functions, including support and extension services, infrastructure support, and regulatory mechanisms (e.g., registration of fishing boats). Also, the inadequate and outdated data (e.g., mechanization, investments in AFF, and catch per unit effort) and limited interoperability of management information systems hamper evidence-based planning and programming, thereby affecting our ability to bring about transformative changes in the sector.

Nevertheless, policy reforms have been enacted to make the sector more resilient and

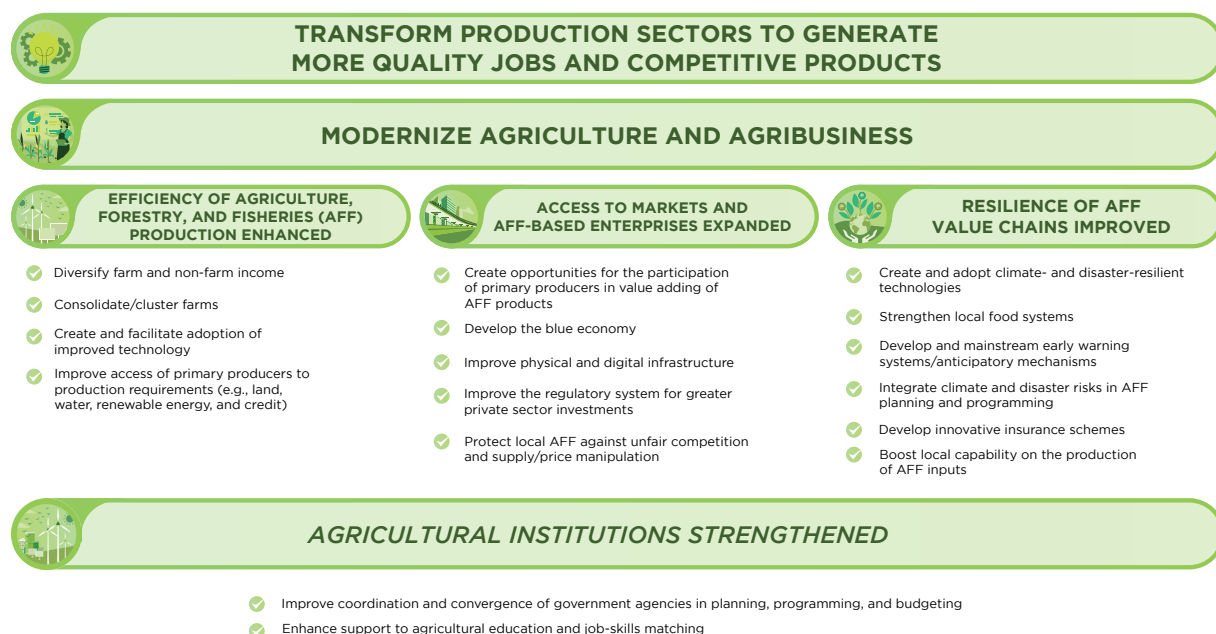
competitive both in the country and abroad. These include the (a) Rice Tariffication Law (RA 11203); (b) Coconut Farmers and Industry Trust Fund Act (RA 11524); (c) *Sagip Saka* Act (RA 11321); (d) Free Irrigation Service Act (RA 10969); (e) Sugarcane Industry Development Act (RA 10659); (f) Agriculture, Fisheries, and Rural Development Financing Enhancement Act (RA 11901); (g) Agricultural and Fishery Mechanization Law (RA 10601); and (h) Agricultural Free Patent Reform Act (RA 11231). Moving forward, the DA's programs and projects will build on the holistic approach to AFF development as embodied in the NAFMIP and other road maps for the major AFF sectors (e.g., National Irrigation Master Plan). The DA also established fisheries management areas and developed the Integrated Marine Environment Monitoring System to ensure that fisheries production is within ecological limits. Further, the rise of digital technology facilitated greater access of farmers to financial services as well as markets for inputs and products. This Plan will build on these positive developments to formulate strategies to address the dysfunctionalities of the existing agri-food system.

Strategy Framework

The Plan pursues a whole-of-society approach in modernizing agriculture and agribusiness, emphasizing the crucial role of both the government and private sector in enhancing the efficiency of AFF production, expanding access to markets and

AFF-based enterprises, and improving the resilience of AFF value chains. This will be complemented with strategies to strengthen agricultural institutions that will enable the modernization of the country's agriculture and agribusiness.

Figure 5.1 Strategy Framework to Modernize Agriculture and Agribusiness



Strategies

Outcome 1: Efficiency of AFF production enhanced

Diversification of income sources will be intensified, economies of scale through farm consolidation and clustering will be pursued, and innovative technologies will be adopted to enhance efficiency of resource use and improve the sector's productivity.

Diversify farm and non-farm income

Diversification opens possibilities for integration and intensification. This will help in ensuring the efficient use of land, water, capital, and human resources, thereby increasing farm income, creating more full-time jobs, and generating higher wages. This will involve diversifying commodities and production activities to include value-adding and other sources of farm and non-farm incomes. This entails the (a) operationalization of various integrated farming systems and commodity

system-based planning approach in the production of food and non-food commodities, value-adding, and other segments of the value chain; (b) cascading AFF planning tools at the regional and provincial levels; and (c) scaling-up value chain analyses to guide and ensure strategic interventions.

Consolidate/cluster farms

This strategy involves contiguous farming and operational consolidation of farms, labor, and other inputs, and thereby take advantage of economies of scale in production. Farm consolidation will facilitate greater adoption of efficient mechanization practices. Buying inputs in bulk and consolidating produce will improve the market power of smallholder primary producers, leading to lower input prices and higher profits. Labor consolidation builds

on the traditional *bayanihan* practice in the country. To achieve these, the government will: (a) strengthen support for bridging institutions, such as cooperatives and farmers associations, as channels for technology diffusion; and (b) institutionalize at the level of smallholder primary producers the implementation of farm and fisheries consolidation and clustering in the programs and projects of rural development agencies. The DA and DAR will also continue to promote private sector engagement with smallholder primary producers through agribusiness venture agreements and sugar block farms, among other modalities.

Create and facilitate adoption of improved technology

Modernization is geared toward shifting the source of productivity from natural resources to knowledge (technology). The adoption of modern production technologies responsive to the needs of primary producers shall be scaled up (*See Chapter 8*) to reduce the threat of diseases, increase sustainability and yield, and reduce the overall cost of operation. Such technologies will include location-specific, sensor-based, and precision agriculture to optimize the use of production inputs in a sustainable manner; smart greenhouses; and controlled environment agricultural techniques. Thus, public-private partnerships will be deepened to address the weak spot—the “last mile” of technology delivery—by increasing investments in RDE for biological, physical, and digital technologies, establishing more innovation hubs and demonstration sites, and strengthening the Province-led Agriculture and Fisheries Extension System (PAFES).

Improve access of primary producers to production requirements

For land resources, digital technologies will be harnessed to hasten the titling of collectively-owned land and supports programs for sustainable use of forestlands (e.g., through agro-forestry) and ancestral lands. At the same time, the protection of indigenous peoples’ (IP) rights, knowledge, and practices shall be ensured. In terms of improving and protecting access to water resources, the following are prioritized: (a) investing in climate-smart irrigation technologies (e.g., solar-powered irrigation systems, drip irrigation, and water-efficient varieties of crops); (b) climate retrofitting of existing irrigation and drainage systems; (c) designing and managing flexible and durable irrigation systems for different farming systems; (d) incentivizing rainwater harvesting; (e) recycling domestic water for irrigation purposes at household and community levels; and (f) fully operationalizing the fisheries management areas (FMA), especially the convening of FMA management bodies and developing and implementing the fisheries management plans. Simultaneously, there will be greater utilization and composting of farm and non-farm wastes and biological materials, such as palm sap, wood waste, and Napier grass, as energy and fertilizer sources.

Moreover, the sector’s access to capital will be further increased by (a) expanding the coverage of innovative financing schemes and processes for smallholder primary producers (e.g., crowdsourcing, digital banking, and DA-Agricultural Credit Policy Council’s credit programs);¹⁰ (b) increasing the physical network of banks and financial institutions in rural areas; (c) facilitating data sharing among banks and formal financial institutions to gain granular knowledge of the financial services needs of the sector; and

(d) intensifying agricultural guarantee services and establishing more credit surety funds to mitigate risks faced by financial institutions

in extending unsecured loans to farmers and fisherfolk.

Outcome 2: Access to markets and AFF-based enterprises expanded

Create opportunities for the participation of primary producers in value-adding of AFF products

The primary producers will be assisted to deviate from traditional volume-oriented and single-commodity approach and practices which limit the output of farms. To this end, value-adding activities of primary producers will be intensified by (a) piloting toll-based processing facilities and investing in these through build-operate-transfer schemes; (b) developing domestic industries to use local materials for packaging (e.g., bamboo, seaweeds) and to fabricate farm and processing machinery and equipment; (c) expanding business partnerships between the private sector and primary producers (e.g., small brother-big brother arrangements, block farms, private sector-led contract growing); and (d) strengthening the capacity of smallholder primary producers to process raw materials, understand markets, and ensure that food safety and quality standards are met. To expand opportunities for upland communities, agroforestry and the establishment of commercial forest plantations will be intensified. Commercial forest plantations within integrated forest management agreements, community-based forest management agreements, and applicable areas in ancestral domains will be developed based on comparative advantage and ecosystem-based management approaches (*See Chapter 15*). These activities will also expand livelihood and entrepreneurial opportunities that can be made available and accessible for vulnerable groups—

particularly women, IPs, and the youth—and increase their participation along the value chains.

Develop the blue economy

Recognizing the country's geography, history, and culture, which suggest that more of the nation's wealth rests on its coastal and marine resources, DA, DTI, DENR, DOST, and other relevant agencies, will emphasize and allocate the needed resources to harness the full potential of the blue economy (*See Chapter 15*). This will be attained through: (a) full implementation of FMA plans and establishment of reference points and harvest control rules and measures for priority fish species; (b) promotion of viable livelihood options for coastal communities to address the seasonality of fisheries, including adaptive, integrated, and multi-species aquaculture, engagement in agri-tourism activities, and other supplemental livelihood programs for fisherfolk and coastal communities (e.g., salt production); (c) establishment of electronic catch documentation and traceability for sustainable fisheries (e.g., tuna); (d) upgrading of Technology Outreach Stations and National Technology Centers and greater investments in hatcheries, mariculture parks, and feed mills; (f) addressing the lack of modern ship and port facilities and other barriers to efficient inter-island transport and shipping (*See Chapter 12*); and (g) adoption of measures to secure the access of local fisherfolk to the country's fishing grounds (*See Chapter 13.1*).

Improve physical and digital infrastructure

Physical and digital infrastructures (See Chapter 12) have the demonstrated ability to improve the efficiency of the agri-food system while reducing its adverse impact on the environment. The government will rationalize investments in AFF infrastructure through the use of planning tools and information systems, such as the Agricultural and Biosystems Engineering Management Information System and Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure (GEOAGRI) Portal.¹¹ These are geared toward (a) building more and improving the interconnectedness of multimodal transport and logistics, especially those required for perishable products; (b) upgrading processing, postharvest, and storage facilities with emphasis on cold chain technology, including the operationalization of community fish landing centers across the country; (c) establishing sustainable infrastructures, such as green ports; (d) integrating and improving the interoperability of AFF information systems to harness the Fourth Industrial Revolution technologies (e.g., big data, block chain, and Internet of Things); and (e) promoting and strengthening the capacity of farmers and fisherfolk to use mobile- and web-based platforms for marketing, payment, and product delivery (e.g., Co-opBiz,¹² e-KADIWA, GCash).

The DA will also strengthen priority AFF digitalization projects, including the National Farmers and Fisherfolk Registry System (NFFRS)¹³ and the Agribusiness Portal,¹⁴ among others.

Improve the regulatory system for greater private sector investments

A regulatory system necessary to modernize the agri-food system should put in place enabling policies and institutions conducive for private sector investments (See Chapters 10 to 14). Relevant government agencies, together with the private sector, shall focus on (a) adopting global standards for product safety and quality and business practices; (b) facilitating the entry of foreign investment and talents; and (c) promoting partnerships between foreign and domestic investors. Supporting these interventions is the strengthened implementation of Ease of Doing Business and Efficient Government Service Delivery Act (RA 11032) (See Chapter 10).

Protect local AFF against unfair competition and supply/price manipulation

The government will strictly enforce measures intended to minimize or stop illegal and unfair practices that disincentivize local farmers and investors such as smuggling, hoarding, dumping, and other forms of unfair practices (See Subchapter 3.1).

Outcome 3: Resilience of AFF value chains improved

Create and adopt climate- and disaster-resilient technologies

To minimize the impact of climate change and disasters, more investments for RDE on climate-resilient technologies and nature-based solutions will be pursued (See Chapter 15),

including but not limited to improved varieties and breeds of plants and animals, water-saving irrigation systems, soil erosion control technologies, and controlled environment crop production systems. Alternate wetting and drying method and the use of decentralized renewable energy in AFF production (e.g.,

solar, biological, and wind) shall also be intensified.

Strengthen local food systems

Local food systems are shaped by geography, ecology, and culture. They are composed of diverse species of plants, animals, and microbes that are uniquely adapted to the local environment and have been found, through constant trial and error, to be optimal for the nutrition and health of consumers. Local food systems are then least vulnerable to international supply chain disruptions and, in the face of imperfect scientific knowledge about human nutrition, provide some guarantee of a match with the biological needs of the local population. Thus, investing in local food systems will help ensure food security by reducing food costs, shortening food miles, creating local employment, and fostering pride in the country's food heritage. In addition, RDE on indigenous species and varieties of plants and breeds of animals and promoting traditional food culture through active advocacy and formal and informal education shall be prioritized. The government will also institute policies to encourage investments in growing, processing, marketing (domestic and international), and consuming nutritious and safe local dishes (*See Subchapter 3.1*).

Develop and mainstream early warning systems/anticipatory mechanisms

Systems for prediction of disasters involve hazard estimation and weather forecasting (*See Chapter 15*). Some existing technologies have achieved a level of granularity in terms of spatial information needed in a highly diverse Philippine geography. Thus, the government will further invest and continue the localization and deployment of these technologies to guide primary producers in making decisions

(e.g., time and place of planting/fishing). To ensure risk-informed management of multidimensional shocks, the government will (a) mainstream the use of technologies (e.g., remote sensing) to predict supply chain disruptions; (b) adopt site-specific, timely, and simplified climate outlook (e.g., La Niña and El Niño updates) and weather forecasts that can be easily and readily adopted by primary producers; (c) improve biosecurity measures and strengthen facilities/efforts to prevent and control outbreaks of transboundary plant and animal diseases (e.g., ASF, AI, and banana fusarium wilt); and (d) accelerate the development of vaccines to control livestock and poultry diseases.

Integrate climate and disaster risks in AFF planning and programming

The DA will integrate the results of the Climate Risk and Vulnerability Assessment in agri-fishery plans and programs and intensify the use of tools, such as Sustainable Land Management, Expanded Vulnerability and Suitability Assessment and Value Chain Analyses for commodity prioritization. Further, the DA, in partnership with relevant agencies (e.g., DOST, Climate Change Commission, National Disaster Risk Reduction and Management Council), will train planners on the use of available tools for integration of climate and disaster risks (e.g., hazard maps) in AFF plans, programs, and projects. Local climate change trends and projections will also be considered in the construction of disaster- and climate-resilient farm structures and retrofitting of existing ones (e.g., small-scale irrigation systems).

Develop innovative insurance schemes

With the need to mitigate losses and ensure speedy recovery from natural and economic shocks as well as outbreak of pests and diseases,

the Philippine Crop Insurance Corporation (PCIC) will implement index- and weather-based insurance schemes to provide adequate and timely compensation to primary producers. Greater digitalization of insurance programs will also be pursued for faster transactions and provision of indemnity payments.

Boost local capability on the production of AFF inputs

The ongoing Russia-Ukraine conflict highlighted the risk of dependence on international trade for AFF inputs. Increased prices of fertilizers, fuel, and other inputs have

driven food inflation and low production. Investments in the domestic production of AFF inputs will be intensified along with creating local business opportunities for the sector to lessen dependence on foreign sources and reduce supply chain disruptions. This covers the local development of seeds, propagating materials, tools, and machinery, as well as bio-based fertilizers, pesticides, and packaging materials for manufacturing industries (See Chapter 6). The DA will also ensure sufficient buffer stocks of seeds and other planting materials to mitigate the impacts of global economic shocks.

Outcome 4: Agricultural institutions strengthened

Improve coordination and convergence of government agencies in planning, programming, and budgeting

This focuses on (a) restructuring and reorganizing DA to enable a more efficient implementation of AFF plans and programs at the national and local levels; (b) filling the gaps in services (e.g., “last mile” delivery of extension services); (c) reinvigorating the National Convergence Initiative and including the DTI in its composition; (d) streamlining public RDE support system and addressing duplications among relevant agencies; (e) rationalizing land administration and management functions; and (f) completing and regular updating of registry and information systems to provide reliable data sources that will assist the government in identifying investment gaps and making sound and data-driven decisions.

Agricultural cooperatives will also be strengthened by enhancing the coordination mechanisms between the DA and Cooperative Development Authority, with the DA assuming a greater role in steering the needed

development interventions to organize smallholder farmers and link them with investors. This strategy also ensures horizontal and vertical coordination and multi-sectoral approach in the delivery of devolved extension services, given the Supreme Court ruling on the *Mandanas-Garcia* case. This covers capacity and competency-enhancing interventions for the national and local agriculture extension workers and collaborative training engagements with other stakeholders (e.g., private sector and academe). This further covers the completion of the Technical Education and Skills Development Authority’s (TESDA) skills needs assessment to guide training and other capacity building activities for primary producers.

To hasten the land titling process, the following will be pursued: (a) finalization of the Joint Administrative Order (JAO) between DAR and National Commission on Indigenous Peoples on the parcelization of collective CLOA in ancestral domain; and (b) implementation of the JAO between DAR and Land Registration Authority on the processing period for the

generation, issuance, and registration of computerized CLOA titles.

Enhance support to agricultural education and job-skills matching

This strategy includes (a) improving the responsiveness of job and skills matching programs through the participation of industry in formulating curricula in agri-fishery schools; (b) redeveloping education and training services by adopting needs-based capacity development programs for small farmers and fisherfolk and micro, small, and medium enterprises;

and (c) capacitating schools for teaching modern agri-fishery in the context of agri-food systems, with focus on innovations for best and modern techniques and applications as well as commercialization of modern farming and fishing technologies (*See Subchapter 2.2*). Moreover, to help in improving the quality of life of primary producers, the government will pilot-test flexible work arrangements to ease labor regulations, especially in rural areas. This will further enable primary producers to get additional sources of income from other sectors.

Legislative Agenda

Table 5.1.1 presents the priority bills for the 19th Congress to modernize agriculture and agribusiness.

Table 5.1.1 Legislative Agenda to Modernize Agriculture and Agribusiness

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
National Land Use Act	This is to establish a national land use framework that will (a) define the indicative priorities for land utilization and allocation across residential, infrastructure, agricultural, and protective uses; (b) integrate efforts, monitor developments related to land use; and (c) evolve policies, regulations, and directions of land use planning processes.	Department of Environment and Natural Resources (DENR), Department of Agrarian Reform (DAR), Department of Trade and Industry (DTI), Department of Public Works and Highways (DPWH), Department of Transportation, Department of Tourism, Department of the Interior and Local Government (DILG), Department of Justice, Department of Energy, Department of Human Settlements and Urban Development, local government units (LGU)
Consolidating land administration and management functions	This will improve land administration and management services for agricultural and non-agricultural lands. This will also contribute to fast-tracking the distribution of individual titles under the Comprehensive Agrarian Reform Program (CARP).	DAR, DENR, Land Registration Authority
Increasing Idle Land Tax	This is to promote the productive use of idle lands, even if temporary, but without prejudice to the rights of owners to security of tenure.	Department of Finance (DOF), DILG, LGUs
Soil and Water Conservation Act	This aims to promote the adoption and implementation of Sustainable Land Management programs, projects, and activities for further prevention of land degradation through various soil and water conservation technologies and approaches, including rainwater harvesting.	Department of Agriculture (DA)
New Agrarian Emancipation Act	This aims to free Agrarian Reform Beneficiaries from the debt burden through the condonation of unpaid principal amortization payments for the lands awarded under CARP.	DAR
Farm-to-Market Road Development and Acceleration	This seeks to institutionalize the Farm-to-Market Road Development Program and funding commitment. This is to improve the Philippine barangay road network to serve the needs of the Philippine Food Systems transformation <i>(See Chapter 12)</i> .	DA, DPWH
Strengthening the agricultural extension system	This aims to provide additional funding for provincial LGUs to incentivize them in investing in and/or improving the provincial agri-fishery extension system. This builds on the draft Executive Order institutionalizing the Province-led Agriculture and Fisheries Extension Systems and mandating its implementation across all provinces.	DA, LGUs
Amendments to the Landbank of the Philippines (LANDBANK) Charter	This aims to increase the authorized capital of the bank for better funding assistance in government programs for primary producers. This will also enable LANDBANK to operate as a government financial institution responsible for broad-based agricultural and rural development as well as financial inclusion.	LANDBANK
Livestock, Poultry, and Dairy (LPD) Development and Competitiveness Act	The proposed law aims to (a) improve the availability and affordability of nutritious and safe LPD products; (b) pursue better government response to pests and diseases; and (c) increase the incomes of LPD and corn farmers.	DA, DILG, LGUs
Amendment of the Rice and Corn Law (Presidential Decree [PD] No. 194)	There is a need to amend PD 194, which places a time limit for foreign companies to operate as 100% foreign-owned entities, to attract foreign investments in the agriculture sector.	DA, DTI
Amendment of Section 61 of the Fisheries Code of 1998 (RA 8550)	The proposed law aims to improve efficiency and transparency in the trade of fishery products that would reduce trade costs and enable the timely importation of fish to augment domestic production in cases of supply deficiency.	DA
Strengthening the Philippine Crop Insurance Corporation (PCIC)	This aims to strengthen and expand the agricultural insurance provision by the PCIC to protect farmers and fisherfolk from losses and damage brought about by natural calamities.	DOF, PCIC, DA
Young Farmers and Fisherfolk Challenge Act	This aims to (a) encourage the youth to pursue a career or engage in activities related to agriculture; (b) ensure participation of young farmers and fisherfolk in policy formulation and program implementation relative to the agriculture sector; and (c) provide institutional support for agribusiness and agri-entrepreneurship initiatives of the youth to realize fully their role as agents and partners for development.	DA, DTI, DepEd, Department of Science and Technology, Commission on Higher Education, DAR, Technical Education and Skills Development Authority, DILG, Department of Information and Communications Technology, DENR, National Youth Commission, LGUs

Results Matrix

Table 5.1.2 presents the indicators and targets during the Plan period to modernize agriculture and agribusiness.

Table 5.1.2 Results Matrix: Modernize Agriculture and Agribusiness

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Chapter Outcome: Agriculture and Agribusiness Modernized									
Growth in average family income of Skilled Agricultural Workers or Farm Laborers and Fisherfolk* (%)	27.1** (2015-2018)	-	-	20.0-30.0	-	20.0-30.0	-	Family Income and Expenditure Survey (FIES)	DA, DAR, LGUs
Growth in agriculture, forestry, and fisheries (AFF) gross value added (GVA) increased (% in constant prices)	0.8 (Q1-Q3 2022)	1.8-3.3	1.8-3.3	1.8-3.3	1.8-3.3	1.8-3.3	1.8-3.3	Philippine Statistics Authority (PSA) Macroeconomic Accounts	DA, LGUs
Ratio of high-value crops (HVC) GVA to Total AFF GVA increased (%)	21.0 (2021)	21.3	21.7	22.0	22.4	22.8	23.1	PSA Openstat	DA
Level of mechanization improved									
Rice (hp/ha)	3.77 (2019)	-	-	4.2	-	-	4.6	DA-Philippine Center for Postharvest Development and Mechanization	DA
Outcome 1: Efficiency of AFF production enhanced									
Growth in AFF labor productivity increased (%)	-8.7 (2021)	2.3-5.5	2.3-5.5	2.3-5.5	2.3-5.5	2.3-5.5	2.3-5.5	PSA Labor Statistics	DA, DAR, LGUs
Outcome 2: Access to Markets and AFF-based Enterprises Expanded									
Growth in the total value of approved investments in agribusiness increased (% in real terms)	-24.0 (2021)	10.0	10.0	10.0	10.0	10.0	10.0	PSA Openstat	Investment Promotion Agencies
Growth in the value of agriculture and fisheries exports increased (% free on board value)	-13.9 (Sep 2022)	6.4	6.4	6.4	6.4	6.4	6.4	PSA Trade Statistics	DA, Department of Trade and Industry
Outcome 3: Resilience of AFF Value Chains Improved									
Proportion of primary producers covered by agricultural insurance to total number of primary producers registered in the Registry System for Basic Sectors in Agriculture increased (%)	33.4 (2021)	37.6	38.9	45.7	48.1	50.8	53.3	PCIC	PCIC

* Income of families whose household head is engaged as Skilled Agricultural Workers or Farm Laborers and Fishermen

** Baseline and targets will be updated upon the release of the official 2021 data from the FIES in the 1st quarter of 2023

- ¹ Based on the data from the PSA, poverty incidence among farmers has decreased from 40.8 percent (2015) to 31.6 percent (2018). It has decreased among fisherfolk from 36.9 to 26.2 percent in the same period.
- ² NEDA. (2021). Socioeconomic Report.
- ³ Based on the latest data reported by DA-PhilMech
- ⁴ Data from the 2019 study of the Bureau of Agricultural Research and University of the Philippines Los Baños as reported by DA-PhilMech and Bureau of Agriculture and Fisheries Engineering
- ⁵ Based on the PSA OpenSTAT 2021 data.
- ⁶ The DA-Bureau of Fisheries and Aquatic Resources reported that there are 67 operational mariculture parks, 48 of which are non-operational.
- ⁷ From 2014-2022, only about PHP1.2 billion was funded out of the PHP3 billion proposed budget of the High Value Crops Development Program for small-scale irrigation.
- ⁸ World Bank. (2021). Realizing Scale in Smallholder-Based Agriculture: Policy Options for the Philippines.
- ⁹ It comprises eight bureaus, eight attached agencies, eight attached corporations, and 16 regional offices. Several attached agencies and corporations are created for a particular commodity (e.g., National Food Authority, Sugar Regulatory Administration, and Philippine Coconut Authority).
- ¹⁰ Production Loan Easy Access, Survival and Recovery Loan, Kapital Access for Young Agripreneurs, and Agri-Negosyo Loan Program, among others.
- ¹¹ GEOAGRI is an interactive web mapping application that displays information on Farm-to-Market Road (FMR) projects.
- ¹² Co-opBiz is an online platform for transaction and delivery of agricultural products of cooperatives; e-Kadiwa is an online marketing platform that directly links producers and agripreneurs to consumers, wherein agricultural produce can be bought simply using a mobile phone or computer and can be paid via cash-on-delivery or bank transfer.
- ¹³ The NFFRS is the flagship digitalization project of the DA. It is an online application used to update the Registry System for Basic Sectors in Agriculture. It aims to be a reliable source of data and information to be used as basis/ reference in the implementation of various AFF programs as well as the formulation and evaluation of policies.
- ¹⁴ The online Agribusiness Portal is composed of the *e-Kadiwa* platform (e-commerce), Price Monitoring System (Bantay-Presyo App), Commodity Trade Volume Watch System, and the Farmers and Fisherfolk Enterprise Development Information System.

06

Revitalize Industry



Revitalize Industry

To generate more quality jobs and competitive products, the industry sector will be revitalized by expanding the domestic market and supplier base, moving up the value chain, and enhancing linkages across sectors. Moreover, to drive industrialization forward, accessibility, particularly of micro, small, and medium enterprises, to a dynamic science, technology, and innovation ecosystem will be ensured.

This chapter presents the challenges to revitalizing industry and the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) domestic market production and supplier base expanded; (b) moving-up the value chain achieved; (c) competitiveness improved; (d) dynamic industry ecosystem created; and (e) inter-sectoral linkages enhanced.

Assessment and Challenges

Before the coronavirus disease (COVID-19) pandemic, the Philippines had a growing industry despite structural weaknesses.

Despite difficulty in attracting foreign direct investments (FDI), restrictions to foreign equity and the lack of advanced science, technology, and engineering skills, industry showed a strong performance from 2010 to 2019, growing at an average of 6.4 percent annually. This growth was driven by robust growth in construction (10.0%); electricity, steam, water, and waste management (5.7%); and manufacturing (5.6%) over the same period.

COVID-19 reversed industry performance.

The imposed lockdowns have wiped away the gains from previous years, resulting in the contraction of the industry sector (–13.1%) with construction (–25.5%) and mining and quarrying (–18.6%) reporting double-digit declines.

Yet, we have seen some bright spots in the midst of the pandemic. Pharmaceutical manufacturers have shown resilience, growing at 5.8 percent in 2019-2020 despite

the lockdowns. Electricity, steam, water, and waste management sector also showed a minimal decline of 0.4 percent in 2019-2020 despite prolonged periods of community quarantine.

Businesses have turned to digital tools, especially for marketing and payments during the pandemic, evidenced by the significant growth in e-commerce. Driven by strict lockdowns as well as a tipping point in the adoption of certain digital services, the Philippines' 2021 Gross Market Value (GMV) reached a total of USD17 billion—a notable 93 percent year-on-year (y-o-y) surge. This steep increase is underpinned by a 132 percent growth in e-commerce. In addition, 39 percent of digital merchants believe that they would not have survived the pandemic if not for digital platforms. Digital merchants are reported to have used an average of two digital platforms in that year.¹

In the first half of 2022, economic recovery has become more broad-based as many industry subsectors have surpassed pre-pandemic performance. Electricity,

steam, water, and waste management (9.9%) have exceeded pre-pandemic growth. For the manufacturing sector: wood, bamboo cane, and rattan (31.3%); chemicals (29.1%); paper (19.2%); furniture (13.3%); electronics (8.9%); food products (4.9%); and fabricated metals (4.2%) have all reported production expansions higher than their 2019 figures.

Recovery can also be seen in the rebound of employment generation. Employment generated in the industry sector totaled 446,000 in January–May 2022, indicating a high likelihood that the full-year 2022 target of 200,000 will be surpassed given sustained economic growth momentum. Manufacturing contributed about 52 percent to employment generation in industry, followed by construction at 41 percent.

Looking forward to the next 5 years, challenges to industry development remain but also opportunities abound.

Philippine manufacturing continues to have low technology utilization with most companies² still transitioning from Industry 2.0 to Industry 3.0.³ In addition, micro, small, and medium enterprises (MSME) in manufacturing have, at most, low technological readiness for the Fourth Industrial Revolution or Industry 4.0. Most MSMEs admitted that they are not yet ready for revolutionary changes in their organizations, citing top barriers to technology utilization such as the high cost of technologies, lack of infrastructure, absence of skilled employees, and lack of management knowledge.⁴

Still, certain industry sectors are already considering adopting modern technologies. Food manufacturers are exploring the applications of artificial intelligence (AI), the Internet of Things (IoT), and synthetic

biology (plant-based alternatives for meat products). The Semiconductor and Electronics Industries in the Philippines Foundation, Inc. is also optimistic about the opportunities that will be provided by emerging technologies, such as metaverse, automotive AI, advanced driver assistance systems, and augmented reality.⁵

Rapid global inflation is clouding the outlook for sustained manufacturing growth. The Philippine manufacturing sector is projected to take a hit from high global inflation mainly brought about by the prolonged Russia–Ukraine conflict. While domestic demand may have continued to sustain the domestic manufacturing sectors, the rising import cost of inputs and fuel prices, and the slowing down of manufacturing activity in major economies⁶ may be a drag on the domestic manufacturing sector. The Purchasing Manager's Index (PMI), declining from 54.1 in May 2022 to 52.6 in October 2022, has already shown indications of slowing manufacturing activity.

The constraint placed by international sanctions on Russian export of cobalt, a key input in the production of batteries, provides opportunities for the Philippine mining and manufacturing industries. The Philippines and Russia have roughly similar amounts of cobalt reserves and fall within the top six country sources of cobalt, after Australia, Cuba, the Democratic Republic of Congo, and Indonesia. Although the Philippines produces nickel-cobalt mixed with sulphide, the opportunity to add value and produce nickel sulphate (needed by lithium ion battery producers) in the Philippines has yet to be taken. Prolonged sanctions on Russian cobalt will likely increase investors' interest in the Philippines.⁷

Competitive cost of labor, but lack of skilled workers. The Philippines industry can continue to benefit from the competitive labor cost of the country, as the average engineer's monthly salary in manufacturing is the lowest vis-à-vis Malaysia, Thailand, Vietnam, and Indonesia.⁸ However, in order for Philippine firms to adopt new

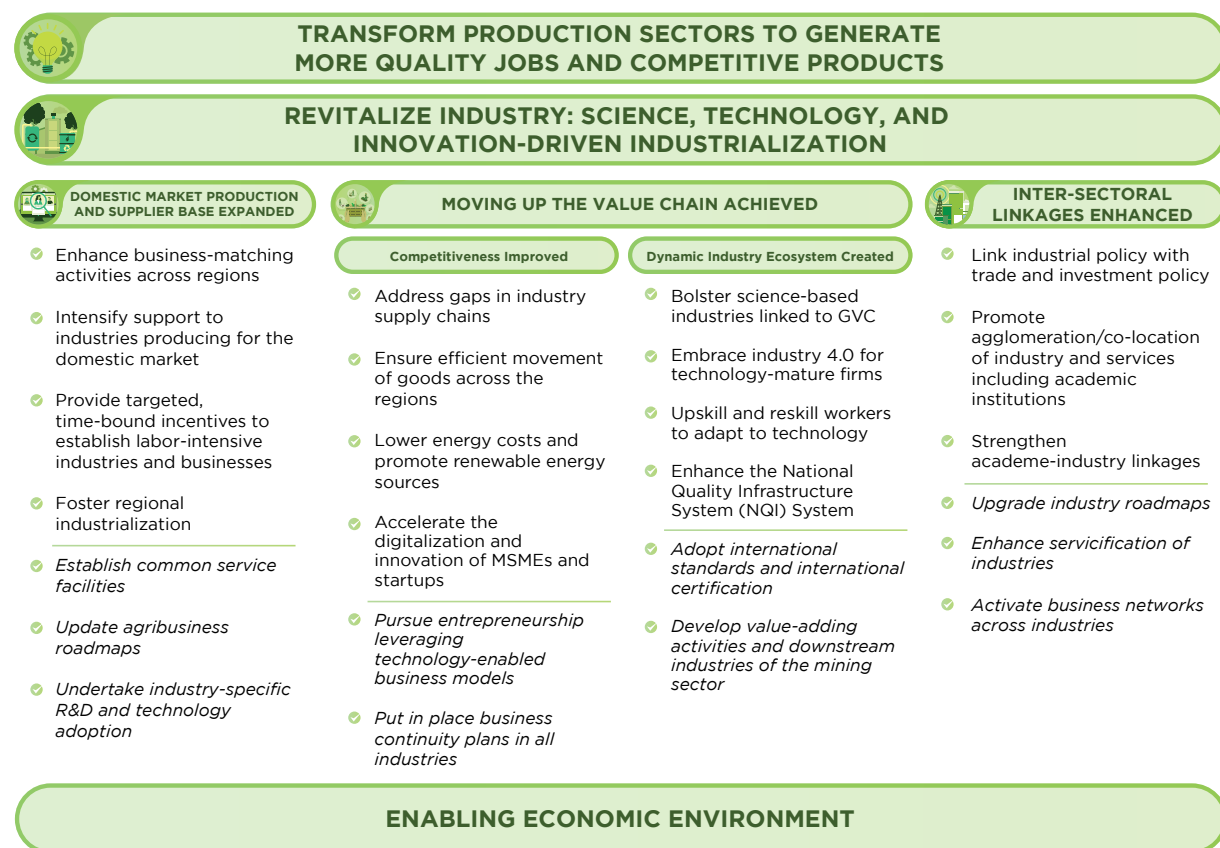
technologies to become more competitive, it is critical to expand their absorptive capacity, which requires developing the appropriate management skills and hiring more technical staff. The availability of scientists and engineers in the country, however, is scored at only 3.8 (out of 7).⁹

Strategy Framework

To generate more quality jobs and competitive products, the industry sector will be revitalized through expanding the domestic market and supplier base, moving up the value chain, and enhancing linkages across sectors (See Figure 6.1). Moving up the value chain can be achieved by improving the

competitiveness of industries and by creating a dynamic industry ecosystem. A dynamic industry ecosystem will enable better access of firms, particularly MSMEs, to science, technology, and innovation, which are key drivers of industrialization.

Figure 6.1 Strategy Framework to Revitalize Industry



Strategies

Outcome 1: Domestic market production and supplier base expanded

An integrated industrial policy approach to expand domestic production and supplier base is critical to achieving inclusive and sustainable growth. This entails enhancing business-matching activities across the regions, intensifying support to industries producing for the domestic market, providing targeted and time-bound incentives to establish labor-intensive industries and businesses, and fostering regional industrialization. These strategies will induce the private sector to work with government in establishing common service facilities, in updating and implementing agribusiness roadmaps, and in undertaking industry-specific research and development (R&D) and technology adoption.

Enhance business-matching activities across regions

Scale up domestic investment promotion and business-matching activities at the local level. Because of the large coverage of the *Negosyo* Centers and the variety of services they can provide, the Department of Trade and Industry's (DTI) *Negosyo* Centers located all over the country will be the avenues for business-matching activities, which would link MSMEs to large enterprises in the regions. The database of *Negosyo* Centers can also serve as a means for clustering MSMEs to build scale and meet the demands of large enterprises.

Map out value chains across sectors. Government will facilitate the linking of the upstream segments to the downstream segments through capacity development and assistance to meet technical requirements. The experience of the Supplier Development Program of the DTI and BOI in assessing the presence and capabilities of local parts suppliers for automotive, aerospace, and electronics sectors can provide insights for the effective implementation of this strategy.

Intensify support to industries producing for the domestic market

Provide assistance to expand market share. Manufacturers producing for the domestic market are faced with competition from lower-priced imports that tend to flood the Philippine market and encroach on domestic market shares. To address this, the government hosts provincial and national trade fairs for domestic manufacturers and food processors. Specifically, the One Town, One Product (OTOP) shows, and Go Lokal! concept stores in major malls provide marketing assistance to industries that are producing for the domestic market. To be on par with foreign competitors, businesses are equipped with knowledge, and the right tools to ensure quality and safe production through the Shared Services Facilities (SSF) program, which will be expanded to allow more access points particularly for areas outside the National Capital Region.

Support affordable production for construction. Small-scale real estate developers should consider efforts that are aimed at consolidating their demand for construction materials, especially sustainable construction materials. Such arrangements can help developers overcome the disadvantages posed by the inherent fragmentation and geographical dispersion of housing projects. Furthermore, they benefit from the resulting reduced transport costs, and suppliers' wholesale prices. Demand consolidation will continue to be pursued by the Board of Investment, which has been active in arranging reverse trade agreements among buyers and sellers in the industry, wherein buyers present their needs for certain materials, and arrange for preferential pricing from interested suppliers.

Provide targeted, time-bound incentives to establish labor-intensive industries and businesses

Support for construction and housing will be sustained through fiscal and non-fiscal incentives directed toward housing production confronted with deficits. This includes supporting socialized urban, economic and low-cost housing; developing and implementing information technology (IT) systems that support general operations from amortization collection and marketing; developing globally accepted housing industry standards; and standardizing building components.

Support for health and life science (HLS) will specifically target manufacturing of essential products like personal protective equipment (PPE), surgical masks, and

medical testing kits, among others, for the domestic economy. This includes loans for equipment needed in manufacturing hospital-grade PPEs and medical supplies. Technical assistance will also be provided to companies to meet the standards of hospitals. Government support will also be provided for the streamlining of complex rules and regulations affecting business operations of HLS manufacturers.

Agribusiness includes manufacturers of condiments, cacao processing, coffee, mango, pili, dried fruit, banana, and rubber, among others. Through the Strategic Investment Priority Plan (SIPP), fiscal and non-fiscal support will be provided to food processors to enable them to compete against imports from neighbors in the Association of Southeast Asian Nations (ASEAN). SSFs for agribusiness will likewise be expanded and upgraded.

For automotive manufacturing, government support to programs and measures such as the Electric Vehicle Incentive Strategy, which is similar to the Comprehensive Automotive Resurgence Strategy program, will be expanded. These programs help increase the domestic market base. In turn, these industries attain economies of scale, realize their export potentials, and deepen their participation in global value chains. Furthermore, incentives to be given must be well-targeted, performance-based, transparent, and time-bound.

Foster regional industrialization

The government will promote and support regional and urban centers specializing in industries where they are most competitive,

recognizing the value of the industries in the regions as producers for the local market, and addressing regional growth and development disparities in the country. These can be done by upgrading the OTOP, developing knowledge hubs in each region, and developing platforms that support an innovative culture.

Upgrade the One Town, One Product. The DTI will partner with the National Academy of Science and Technology and the Philippine American Academy of Science and Engineering to improve further the OTOP. DTI regional offices will work with their respective Regional Development Councils (RDC) to advance the implementation of production-based regional development.

Develop knowledge hubs in each region. Through close collaboration among the Commission on Higher Education (CHED), Department of Science and Technology (DOST), and DTI, at least one state university or college in each region will be selected to serve as the knowledge hub in the region. The chosen university will perform R&D work for enterprises, and train entrepreneurs and enterprise employees, among others. Within the medium term, the state universities and colleges (SUC) in a specific region will be clustered or amalgamated to form a regional university that will serve as a component of the region's inclusive innovation centers (IIC).

Develop platforms to support innovative culture. IICs will be expanded to serve as platforms to promote an innovation culture, accelerate the commercialization of R&D outputs in the regions, equip universities to carry out research relevant to industries, and adopt technology solutions to create

intellectual property. In 2019, regional inclusive innovation centers (RIICs) were established in Cebu, Davao, Legaspi, and Cagayan de Oro. More RIICs were added in 2021 to 2022 covering Zamboanga, Batangas, Tuguegarao, Central Luzon, Iligan, Leyte, and Cordillera Autonomous Region. These innovation centers will continue to provide design thinking workshops, and serve as venues for networking and engaging with the academe, industry, and other ecosystem players.

Establish common service facilities

Common service facilities for storage and logistics, such as handling and cold storage services, will be established to help ease the burden of high storage and logistics costs borne by MSMEs. Another service facility that can be provided to MSMEs is the open-access do-it-yourself maker space called Fablabs, which will allow MSMEs to explore the use of digital fabrication. Meanwhile, digital training centers will provide support to MSMEs interested in exploring the use of digital technology. These facilities will be pursued together with the private sector, which will house the facilities and manage access to eligible MSMEs.

Update agribusiness roadmaps

The agribusiness and/or commodity industry roadmaps will be upgraded to consider the evolving domestic and international environment. The roadmaps will be aligned with the updated Philippine commodity industry roadmaps released by the Department of Agriculture (DA), as these pertain to the upstream sectors of the food processors and food manufacturers (*See Chapter 5*).

Undertake industry-specific R&D and technology adoption

Support will be provided to the industries' R&D needs to enhance technology adoption and stimulate productivity growth. For instance, the food manufacturing industry makes use of R&D solutions to develop innovative and environmentally-sustainable packing materials, canning techniques, and identification of ingredients with

high nutritive value. For the construction companies, R&D solutions include green architecture, additive manufacturing, and safer local construction materials which eventually lead to the expansion and upgrading of construction materials suppliers. The Science for Change Program (S4CP) of the DOST will be expanded to support the industries in their R&D needs (*See Chapter 8*).

Outcome 2: Moving up the value chain achieved

Moving up the value chain is a mechanism for businesses to increase economic activity, become more productive, and provide more jobs. This can be achieved by improving the competitiveness of businesses, particularly MSMEs, and by creating a dynamic industry ecosystem.

Competitiveness improved

Address gaps in industry supply chains

The implementation of the manufacturing roadmap will be intensified to address value chain gaps in industry. Over the medium term, the use of sustainable raw materials (along with parts and components) and intermediate products, and the linking of manufacturing with knowledge-intensive services will be encouraged. Specifically, the DTI, in coordination with the DOST, will facilitate the establishment of supply hubs for raw and natural materials in furniture manufacturing. Meanwhile, the DTI and the Mines and Geosciences Bureau will undertake programs to enhance the integration of the iron and steel industry with mining, to include increasing the supply

of iron ore and coal. On the part of the DA and Department of Energy (DOE), seedling development for high-yield coconuts and other energy crops will be pursued to increase feedstock. This includes the mapping of suitable areas for feedstock production for the biofuels industry.

Ensure efficient movement of goods across the regions

Improving the logistics, transport, and delivery services of the country will ensure that the parts and components manufacturers, and raw materials processors located in various regions of the country will be able to supply their products to the next stage of the value chain at minimal cost. Strategies for improving logistics, transport, and delivery services are discussed in Chapter 7.

Lower energy costs and promote renewable energy sources

Reducing energy costs will be a vital thrust for a revitalized industry and expanded frontiers. This will significantly provide support to the other production sectors

of the economy, and tremendously result in positive externalities. To realize these, the implementing rules and regulations of the Renewable Energy Act of 2008 will be amended. The DOE, in accordance with existing laws, will provide the legal and regulatory policy environment to ensure that power-generating provinces are given preferential treatment in availing lower power costs for its constituents, and a continuous 24/7 supply of power. Likewise, the amendments to the Electric Power Industry Reform Act (EPIRA) will be pushed (See Chapter 12).

Accelerate the digitalization and innovation of MSMEs and startups

With more than 95 percent of establishments in the Philippines being MSMEs, targeted support to MSMEs will be provided to ensure that they remain competitive as they face the challenges of the new normal. The strategies that would be adopted to support MSMEs and startups include the following.

Business mentoring and entrepreneurship training to help establish more MSMEs.

The DTI will administer enabling programs to help would-be entrepreneurs establish their businesses. Continuing programs of the DTI such as *Negosyo* Center Seminars, the SME Roving Academy, and the Kapatid Mentor ME would further help infuse an entrepreneurial mindset. The *Negosyo* Centers are also venues for teaching basic entrepreneurship skills, such as: the basic rules for spotting market opportunities; finding product positioning and differentiation; product development;

market development and basic business finance; and plan preparation.

Link MSMEs with startups and multinational corporations or companies.

To accelerate innovation and digital transformation, the DTI will link MSMEs with startups through the continued implementation of the Innovative Start Up Act, particularly those that could help improve MSMEs' digital transformation. Tie-ups between MSMEs and large domestic enterprises and multinationals will be strengthened, to facilitate the transfer of know-how, the upgrading of products and processes conforming to international standards or best practices, and the upscaling of MSMEs. Similarly, MSMEs and startups will be linked for funding and innovation partnership opportunities.

Intensify support for the digital transformation of MSMEs, and the growth and development of startups.

The evolving demand for new and high-quality products and services requires support for MSMEs' adoption of digitalization, technology, and automation, leading to higher productivity and greater innovation. The DTI, in collaboration with the Department of Information and Communications Technology and private sector partners, will provide a digital platform for MSMEs and startups.

To strengthen digital transformation, the DTI will implement the following strategies: (a) craft and implement programs to build the startup ecosystem

(with a common understanding of the startup journey and ecosystem development among government agencies toward the alignment and harmonization of startup policies and programs); (b) provide strong focus on promoting innovation and entrepreneurship; (c) create a more enabling business environment for MSMEs startups; and (d) allow more foreign participation.

To address the limited financial resources for the digital transformation of MSMEs,¹⁰ access to finance will be expanded by improving the credit information, collateral registry, and insolvency regime. Government will improve credit reporting systems by enabling the digitalization of MSME data and expanding the movable collateral registry (*See Subchapter 11.1*). The implementation of a central bank risk database will enable de-risking lending to MSMEs. Strengthening key agencies' capacity for implementation of the insolvency regime should also be pursued.

Conduct extensive innovation pitching for MSMEs and startups. The DTI, through partnerships with industry associations, will create opportunities for MSMEs and startups to convert their ideas into breakthrough innovations. An example of such activity is the open pitching competition for startups in Western Visayas conducted by the Philippine Software Industry Association.¹¹

Pursue entrepreneurship leveraging technology-enabled business models

Entrepreneurs exploring the use of new technology and technology enabled-business models will require a high degree of regulatory flexibility, market openness, and a competitive environment. The DTI will institutionalize a regulatory sandbox that will provide an environment with sufficient checks from the government to ensure consumer protection (*See Chapter 10*). Furthermore, the government will provide a supportive policy environment for entrepreneurs and startups through the exploration of various modes of development finance or blended finance (*See Subchapter 11.1*) to encourage business activities of targeted beneficiaries, specifically women, youth, and persons with disabilities.

Put in place business continuity plans in all industries

Enterprises can improve competitiveness by becoming more resilient to risks and vulnerabilities. The National Wages and Productivity Commission and other relevant agencies will provide capacity building through its Productivity Toolbox, which in turn will aid in the preparation of business continuity plans and strengthen their entrepreneurial capabilities. The government, through capacity building and technical assistance, will help equip enterprises with skills to improve their ability to tap alternative suppliers, and beef up inventory capacity to insulate against vulnerabilities.

Dynamic industry ecosystem created

Bolster science-based industries linked to global value chain

The adoption of new technologies is a way to strengthen innovation through the creation of new products and services in the market, resulting in more quality jobs, higher incomes, emergence of new industries, and promotion of environmental goods. Through science-based industries—industries linked to science, technology, and innovation—a strong domestic base of knowledge production and technology generation is made available. These present opportunities for the development of new industries and knowledge intensification of existing industries. They also provide complexity, agglomeration, networking, clustering, and externalities that eventually result in industrial negentropy. To bolster science-based industries, the following strategies shall be implemented:

Intensify the clustering of existing knowledge-and-technology intensive industries (KTI).¹² The implementation of the DTI's Industrialization Plan 2022–2028 will ensure that the public sector will work together with the existing companies and business groups operating in high- and medium- knowledge and technology industries. This will strengthen industry clusters that will generate increased demand for knowledge and technology-intensive applications and high-skilled labor.

Intensify the promotion of the Strategic Investment Priority Plan. The BOI and

other investment promotion agencies will continue aggressively promoting the SIPP. The SIPP aims to attract investments for technology-driven industrial production capabilities aimed at structural transformation. It serves as a catalyst and engine for industrial development and transformation to produce more diversified, competitive, complex, and sophisticated products. Depending on the location, tier,¹³ and market orientation, eligible activities of Philippine businesses may qualify for fiscal and non-fiscal measures.

Execute the Harmonized National Research and Development Agenda (HNRDA) 2022–2028 with its Industry, Energy and Emerging Technologies roadmaps.¹⁴ The DOST, in partnership with DTI, will hasten the implementation of the HNRDA 2022–2028. The HNRDA guides the research program of the country to ensure that the results of science, technology, and innovation will support the achievement of national goals. Under the latest HNRDA, the industrial applications cover additive manufacturing; advanced materials; materials for energy; nanotechnology; optics and photonics; electronics; information and communications technology; Industry 4.0; quantum technology; construction; AI; space technology applications; transportation; energy and utilities; unmanned vehicle systems; food; metal and engineering; mining and minerals; and processing (agro-industrial, natural products, textiles, and chemical and biological manufacturing).

The HNRDA 2022–2028 will also establish avenues for engagement between the public and private sector toward a strong collaboration in emerging knowledge- and technology-intensive industries (EKTI). The DOST and DTI will facilitate public–private collaborations on EKTIs that have high potential to adopt research results and commercialized applications. These encompass (a) additive manufacturing; (b) AI industry; (c) sustainable energy industry; (d) advance materials and precision industry; (e) smart mining (green metals); (f) advance aerospace & space technology; (g) supply chain provenance (an offshoot of blockchain technology); (h) creative industries in manufacturing; (i) advance agro-manufacturing industry (with focus on food); (j) cyber-physical security industry; (k) circular commodity industries (basic chemical, basic polymer, basic pesticides, fertilizer, pesticide, manufacturing); and (l) health care manufacturing industry (with biotechnology).

Sustain the Science for Change Program. The DOST, with the science–technology–innovation (STI) ecosystem, will sustain the momentum of the S4CP. The S4CP has four components, namely: Niche Centers in the Regions for R&D (NICER) Program, Collaborative R&D to Leverage Philippine Economy (CRADLE) Program, Business Innovation through S&T (BIST), and R&D Leadership (RDLead) Program. It has created opportunities in advancing science, technology, and innovation in the country

for capacity building of R&D institutions, and improving industrial competitiveness.

Accelerate the implementation of the ecozone transformation roadmap. The Philippine Economic Zone Authority (PEZA) will expedite the implementation of the ecozone transformation roadmap.¹⁵ The roadmap expands the different types of Special Economic Zone registrable under PEZA to include new models incorporating townships, such as the Agro-Forestry Ecozone; Aquamarine Park; Defense Industrial Complex; Halal Hub; Island City Ecozone; and the Knowledge, Innovation, Science and Technology Park (KIST Park), among others. The creation of ecozones will be within the existing investment promotion agencies to maximize investments and promote industrial dispersion especially outside metropolitan areas. Further, the ecozones will be integrated into the local economy by relaxing the requirements, facilitating the free flow of parts, components, and other inputs, and increasing open trade between zone locators and firms outside the zones.¹⁶

Implement the priority global value chains (GVC)-oriented industry clusters. Given the changes in consumer trends, and the acceleration of the adoption of new technologies during the pandemic, the DTI, in collaboration with other government agencies, will implement the following four industry clusters seen as potential sources of growth in the country: (a) Industrial, Manufacturing and Transport (IMT); (b) Technology,

Media, and Telecommunication (TMT); (c) Health and Life Science (HLS); and (d) Modern Basic Needs (MBN), Resilient Economy. The first three clusters are currently undergoing global reconfiguration and provide an opportunity for the Philippines to upgrade, diversify, and reposition its global value chain participation.

The IMT cluster's three subsectors (aerospace, automotive, and semiconductors) provide upgrading opportunities in the Philippines.

An opportunity for the Philippines lies in upgrading its participation in the electronics, and electrical parts & components GVCs. This is a common thread among these three IMT subsectors, by attracting more FDIs in design capacity to capture more value added, and expand the manufacturing sector.

Digitalization of services in the TMT cluster is also reshaping opportunities for the Philippines.

The key trend for the business process outsourcing (BPO) sector moving forward is the switch from cost-saving to value-adding activities. The next decade will also witness the BPO segment as a cross-cutting contributor to the competitiveness and efficiency of other GVCs that they are supporting. AI-based cloud analytics and enterprise resource planning will continue to expand, along with the normalization of the work from home arrangement. The 82 percent share of Philippine BPOs and shared services centers in the global

market will be leveraged by targeted policies to increase the country's participation in the TMT GVC cluster.

With a health crisis at the root of the current global economic distress, the HLS cluster plays a strategic role in opening income-generating opportunities for the country. The development of the IMT and TMT clusters will facilitate the emergence of an HLS cluster in the Philippines. Specifically, the IMT cluster (through electronics parts and components) will develop further the medical device sector, while the TMT cluster (through the health care IT services) will advance the health care service sector. Moreover, the pharmaceutical sector will attract leading multinational companies while promoting the domestic suppliers' network. In addition, Big Data and analytical needs associated with health care represent additional growth opportunities for the BPO and IT outsourcing sectors.

Meanwhile, the MBN cluster addresses the need to pursue food security and modernize the agricultural and fishing sector. This, along with other goals such as quality education, clean water & sanitation, and affordable & clean energy, offers opportunities for new investments to support the country's economic recovery and long-term sustainable and inclusive growth.

Embrace Industry 4.0 for technology-mature firms

Industry 4.0 has been creating new industries and disrupting business models at an accelerated pace. New technologies arising from industry 4.0 will spur the development of new production techniques and business models that will transform global production systems, create new and more distributed supply chains, and trigger selective reshoring and nearshoring, thus requiring new skills and capabilities at each GVC stage. The DTI's strategies to take advantage of these new technologies to support the innovation capacity and competitiveness of Philippine businesses include the following:

Implement Industry 4.0 roadmaps.

The DTI and DOST have formulated Fourth Industrial Revolution (4IR or Industry 4.0) roadmaps, outlining overall strategies for the necessary facilities and services, human resources, R&D technologies, and science and technology policies. One example of such 4IR roadmaps that could be implemented is the AI Roadmap. It provides for the establishment of the Center for AI R&D. AI adaption will enable the country to tap vast opportunities to help maintain the regional and global competitiveness of industries, prepare the future workforce for the jobs of the future, and attract AI R&D of multinational and big tech companies to locate in the Philippines. The Center is envisioned to be a public-private partnership to serve as a hub for data scientists and researchers in performing collaborative AI R&D, provide consultancy services, create AI

tech products, and conduct data literacy programs. The Center will focus on key areas utilizing AI such as precision farming, smart manufacturing, healthcare services, AI-powered BPO, smart cities, and resilient technology.

Build Industry 4.0 facilities. An Industry 4.0 pilot factory will serve as a platform for a collaborative learning environment to teach and demonstrate Industry 4.0 management and production technologies like advanced robotics, automation, IoT, and smart manufacturing, especially for large enterprises, MSMEs, researchers, and universities. DTI is also working with DOST in establishing Industry 4.0 facilities, including the Advanced Manufacturing Center ; and the Advanced Mechatronics, Robotics, and Industrial Automation Laboratory.

Assist firms in implementing digital readiness. Through the Smart Industry Readiness Index¹⁷ project, the government will support firms and industries that are shifting to new technologies by providing deeper awareness and understanding of digital transformation, assisting firms in their technology readiness assessment and guiding firms in crafting their firm-level Industry 4.0 roadmaps.

Provide soft loans or technical assistance. Support measures like soft loans, subsidies, and technical assistance programs will help firms increase their resilience, enabling them to become more adaptive to production shocks or supply systems changes through the adoption

of advanced technology and automated processes.

Create the Industry 4.0 Sandbox. The Industry 4.0 Sandbox will be equipped with advanced manufacturing modules and technology for R&D and prototyping activities. Through the Industry 4.0 sandbox, Philippine manufacturers will be able to experiment with Industry 4.0 solutions in settings that mimic a fully supported production environment without restrictions nor interruptions to daily operations.

Upskill and reskill workers to adapt to technology

While many jobs will be lost as a result of automation and advancements in digital technology, new jobs will also emerge that will increase workers' productivity. Tapping these benefits will require increasing investments in skills development, along with greater efforts by companies to upskill or reskill their workforce to perform new and higher order roles complementary with machines. Current systems of learning and job fitness do not provide the agility that lifelong learners will require; hence, the need to shift to a skills-based system that can provide more efficient mechanisms. The academe-industry collaboration will also serve as a main avenue to improve skills development (*See Chapter 4 for a more detailed discussion on reskilling*).

Outcome 3: Inter-sectoral linkages enhanced

Revitalizing industry through science, technology, and innovation industrialization will require enhancement of several linkages

Enhance the National Quality Infrastructure (NQI) System

There is a need to address the fragmented nature of the country's NQI system, which limits the capacity of local manufacturers to comply with global technical regulations and standards. To address this, the passage of the NQI law will be pursued. The law is expected to harmonize the country's standards, technical regulations, metrology, accreditation, and conformity assessment procedures, packaging, and labeling to be at par with international standards.

Adopt international standards and international certification

Information campaigns targeting MSMEs will be launched to promote the benefits of accreditation and conformance to international standards. Specific attention will be given to essential sectors such as health care and food processing, which will support the economy during times of crises.

Develop value-adding activities and downstream industries of the mining sector

The mineral resources of the country will be primarily used for industrial value-addition. In particular, mineral ores are highly preferred to be processed domestically for downstream industries (*See Chapter 15*).

across sectors. Industries need to increase their linkages with agriculture and services sectors. Manufacturers need to expand

domestic linkages while exploring further participation in the global value chains. The link between trade and industrial policy will also be strengthened. Finally, the policy implementers need to work together to ensure a business environment that revitalizes industry.

Link industrial policy with trade and investment policy

Trade strategies that support industrial development include pursuing high-impact Free Trade Agreements (FTA) and arrangements to create the enabling environment for facilitating investments from target-source countries, like the United States and South Korea, in terms of capital and technology. The Regional Comprehensive Economic Partnership (RCEP) Agreement and the Philippines–South Korea FTA are trade agreements that will be signed and fully implemented. These will provide an overall framework for the entry of investors in areas such as electric vehicles, pharmaceuticals, electronics, and agro-processing.

The Philippine government will also actively participate in the negotiations with the innovation- and technology-rich countries that will complement STI-driven strategy and, in parallel, aggressively attract investments from global companies in the TMT, IMT, and HLS clusters. Of particular interest are the semiconductor manufacturers who are currently diversifying production locations. Relatedly, to position the Philippines as a hub for knowledge and technology-intensive export industries, the Philippines will participate in negotiations

to come up with relevant disciplines on the digital economy and e-commerce.

Promote agglomeration or co-location of industry and services, including academic institutions

The skills and jobs needed by industries will be matched to those offered by the academic institutions by putting together in one location the industry, services, and academic institutions. Specific services such as R&D, business support, marketing, and financial services will be made available to support the operation of industries in the area. The KIST parks being implemented by PEZA will be expanded to pursue this strategy.

Strengthen academe–industry linkages

The experience of the University of the Philippines (UP) as an innovator and incubator of health devices and other innovations used by the UP Manila–Philippine General Hospital, especially during the onset of the COVID-19 pandemic, is evidence that in some areas our country has the capacity to answer domestic needs without having to rely on imports. The innovation was made possible by the UP Surgical Innovation and Biotechnology. The DTI and DOST will tap other SUCs and HEIs to host several programs, activities, and projects that help accelerate scientific advancements and technological developments in the form of technical services, industry assistance, collaborative research, and product design and development. These will be made possible through the help of industry partners, the government, and other funding agencies.

Box 6.1 Cluster-based Approach to Industrialization

The Philippines' post-COVID-19 recovery could benefit from the reconfiguration of its leading export sectors in four clusters. These are: Industrial, Manufacturing and Transport (IMT); Technology, Media, and Telecommunication (TMT); Health and Life Science (HLS); and Modern Basic Needs (MBN), Resilient Economy.

The IMT cluster provides the country with upgrading opportunities in aerospace, automotive, and semiconductors. The cluster covers the following: aerospace and maintenance, repair, and overhaul (MRO) including flight control actuation systems, servo actuators, servo valves, galley inserts, structures and equipment, seat parts, lavatories, interior fit-out, panel assembly, electronics, airframes and sub-assemblies, and MRO base and line maintenance, automotive including auto electronics, advanced driver assistance systems (ADAS) components, engineering services outsourcing, electric motor powertrains like battery, public utility vehicles, electric vehicles (EV) and EV parts, green metals value-adding and processing, semiconductor manufacturing services including wafer fabrication, integrated circuit design, R&D, and electronic manufacturing.

The TMT cluster will provide the Philippines opportunities from the digitalization of services (*See Chapter 7 for more details on the strategies related to services*). The TMT cluster covers the following: IT-BPM, hyperscaler data centers, creative industries, trans-shipment facility operations for global logistics, regional telecommunication infrastructure services, and digital economy; and new products, activities, or solutions using digital technologies like artificial intelligence, robotics, augmented reality, virtual reality, mixed reality, 5G connectivity, and Internet of Things in the following areas:

- Smart technology: applications in buildings, homes, factories, agriculture, cities, interconnected products and services, voice assistants embedded in TV sets, cars, home appliances, smart home devices, and home robots
- Resilient technology: disaster preparedness and mitigation, cyber security, and renewable energy
- Vehicle technology: self-driving cars, multimodal transportation, and EV
- Audio, video, and education technology
- E-gaming: console and personal computer gaming software, mobile gaming, immersive audio and advanced communication capabilities, cloud gaming platforms, and gaming accessories
- Metaverse: applications for gaming, entertainment, education, and marketing, among others

In the HLS cluster, the goal is to make the Philippines self-sufficient in pharmaceuticals (with companies like Lloyd Laboratories aiming the same goal), medical devices, healthcare services, digital health products and services such as personal health wellness technology products, therapeutic systems addressing chronic diseases, telemedicine solutions, and artificial intelligence (AI)-assisted diagnoses. The HLS cluster covers the following: life sciences and biotechnology sector, vaccines, pharmaceuticals, medical devices, health care services, digital health products and services such as personal health wellness technology products, smart watches, lighter health wearables, more precise sensors, therapeutic systems addressing chronic diseases, telemedicine solutions, and AI-assisted diagnoses.

The MBN cluster refers to modern basic needs, such as food, shelter, infrastructure, and education, along with activities that foster economic resilience. The cluster covers the following activities and sectors: food security, agro-industrial including coffee, cacao, coconut, fruits and nuts, tropical fibers, rubber and other high-value crops, fishing, blue economy, processed minerals, infrastructure, education, shelter, sanitation, textile, chemicals and plastics, and sectors that foster economic resilience such as energy efficiency, renewable energy, and goods that improve the quality of life while minimizing the use of resources and inputs.

Upgrade industry roadmaps

The DTI and DOST have produced industry roadmaps that outline the vision and targets for the industry and the necessary support needed to achieve these. However, the rapid development in technology, geopolitical uncertainties, and the challenges brought about by climate change require a reassessment of these roadmaps. Thus, the updating of industry roadmaps, with focus on innovation measures, and skills and competencies critical to the industries for 4IR technology adoption and sustainable manufacturing, will be undertaken by DTI and DOST. One example of the roadmap that can be updated is the pharmaceutical roadmap, which can be elevated into an HLS roadmap by: (a) incorporating plans for the institution of a knowledge center of excellence in collaboration with HEIs; (b) mapping the innovation ecosystem available to the cluster; and (c) enabling a superior environment afforded by, for example, a dedicated technology park or campus and venture capital provision.

Enhance servicification of industries

As servicification is a business decision and a response by manufacturers to market conditions, government will further strengthen the inter-industry demand between industry and service sectors to encourage more servicification. Developing product standards, protecting consumer preferences, reducing regulatory demands or requirements, enhancing export orientation and GVC participation, and utilizing government procurement are examples of demand-side strategies, which the government can implement.

The implementation of the SIPP provided under the Corporate Recovery and Tax Incentives for Enterprises Act will provide targeted and time-bound fiscal incentives to activities that will enhance manufacturers' in-house servicification. These include R&D and engineering services that will lead to better manufacturing processes, resulting in higher labor productivity. Productivity will also be improved even without adopting new technologies, by simply tweaking existing steps and removing unnecessary ones. Services providing expertise on organizational paradigms, such as lean manufacturing, could contribute to this endeavor. In addition, EKTIs will increase the interface of industry and services sectors due to the inherent synergistic processes between the two sectors. For instance, under advance materials and precision, a number of submanufacturing industries, such as petroleum manufacturing, chemical manufacturing, and metal manufacturing, are strongly linked to the services subsectors, encompassing wholesale trade, telecommunications, information and communication technology, real estate, and professional and technical services.

Activate business networks across industries

A more active interface and collaboration with the industry ecosystem will be established among these business networks. Manufacturing industry associations and cross-industry linkages will be strengthened and activated toward solving coordination problems to promote backward and forward linkages and economies of scale as well as facilitate information and resources sharing.

Legislative Agenda

Table 6.1 presents the priority bills for the 19th Congress to revitalize industry:

Table 6.1 Legislative Agenda to Revitalize Industry

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Ratification of the Regional Comprehensive Economic Partnership (RCEP)	Negotiations for RCEP started in November 2012 and concluded in November 2020 at the height of the COVID-19 pandemic. RCEP is a free trade agreement among 15 countries comprising the ASEAN-10 and Australia, China, Japan, South Korea, and New Zealand. Joining the RCEP can significantly enhance the market access of the Philippines.	Department of Trade and Industry (DTI)
National Quality Infrastructure	The bill intends to establish standardization, metrology, accreditation, and conformity assessment services necessary to provide acceptable evidence that products and services meet defined requirements, demanded either by authorities or the marketplace. Moreover, it seeks to hasten regulatory approvals for the release and sale of goods and services into the markets, and ascertain protection of consumers from trade malpractices and substandard or hazardous products.	DTI, Department of Science and Technology (DOST)
Amendment of the Philippine Qualifications Framework (Republic Act 10968)	The Philippine Qualifications Framework will be updated to incorporate the Philippine Skills Framework and will serve as a common reference that employers and workers share to ensure the match between jobs and skills.	DTI
Amendments to the Philippine Economic Zone Authority (PEZA) law	This entails updating of the 27-year-old PEZA law to adopt to the digitalization of the locators.	PEZA
Philippine Standardization Act of 2022	The proposed bill envisions to update RA 4109, which was enacted in 1964.	DTI
Internet Transactions Act	The bill seeks to establish an effective regulatory policy for commercial activities conducted through the internet or electronic means.	DTI
Enterprise Productivity Act	This aims to strengthen the productivity improvement and gainsharing between workers and enterprises.	DTI
Science and Technology Parks Act	This proposes the establishment of science and technology parks nationwide to largely promote the culture of competitiveness and innovation through the active promotion of investments from tech-based enterprises and knowledge-based institutions.	DOST

Results Matrix

Table 6.2 presents the indicators and targets under the Plan period to revitalize industry.

Table 6.2 Results Matrix: Revitalize Industry

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	END OF PLAN PERIOD		
Outcome 1: Domestic Market Production and Supplier Base Expanded										
Gross value-added (GVA) growth of modern basic needs (MBN) sectors increased [%] ^a	6.5 (Q1-Q3 2022)	7.0-8.0	8.0-9.0	9.0-10.0	10.0-11.0	11.0-12.0	11.0-12.0	11.0-12.0	National Income Accounts (NIA)	Department of Trade and Industry (DTI), Philippine Statistics Authority (PSA)
GVA growth of construction increased [%]	15.8 (Q1-Q3 2022)	16.0-17.0	16.0-17.0	16.0-17.0	16.0-17.0	17.0-18.0	17.0-18.0	17.0-18.0	NIA	DTI, PSA

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	END OF PLAN PERIOD		
Outcome 2: Moving Up the Value Chain Achieved										
Competitiveness improved										
Ranking in IMD World Competitiveness survey improved (Business efficiency Pillar)	39th of 63 [2022]	37	36	34	33	31	30	30	IMD	DTI
Firms offering formal training relative to the total number of firms increased (%) ^b	59.8 [2022]	62	64	67	70	72	75	75	Global Innovation Index	DTI, Department of Science and Technology (DOST), Technical Education and Skills Development Authority
Share of medium enterprises to total number of micro, small, and medium enterprises increased (%)	0.41 [2021]	0.42	0.44	0.45	0.47	0.48	0.50	0.50	Updating of the List of Establishments	DTI, PSA
Dynamic industry ecosystem created										
Number of scientists, engineers, and technicians employed in businesses increased (head count) ^c	24,887 [2018]	30,728	32,051	33,432	34,872	36,374	37,940	37,940	R&D Statistics	DOST, PSA
Labor productivity in industry increased [2018=100; PHP million/employed]	0.498 (Q1-Q3 2022)	0.72–0.73	0.73–0.75	0.75–0.77	0.76–0.79	0.78–0.81	0.80–0.83	0.80–0.83	NIA, Labor Force Survey (LFS)	DTI, PSA
Labor productivity in manufacturing increased [2018=100 ; PHP Mn/Employed] ^d	1.029 (Q1-Q3 2022)	1.048	1.072	1.096	1.120	1.144	1.169	1.169	NIA, LFS	DTI, PSA
Employment generated in industry increased ('000) ^e	446 (Q1-Q3 2022)	500–600	530–630	560–660	590–690	620–720	650–750	3,450–4,050	LFS	DTI, PSA
A. Employment generated in manufacturing increased ('000) ^e	231 (Q1-Q3 2022)	300-360	318-378	336-396	354-414	372-432	390-450	2,070-2,430	LFS	DTI, PSA
B. Employment generated in construction increased ('000)	184 (Q1-Q3 2022)	185-198	194-208	204-218	213-228	222-238	231-248	1,215-1,300	LFS	DTI, PSA
GVA growth rate of High knowledge-and-technology intensive industries (KTI) increased (%) ^f	2.65 (Q1-Q3 2022)	2.9-3.2	3.4-3.8	4.1-4.6	5.0-5.5	6.0-6.7	7.2-8.0	7.2-8.0	NIA	DTI, PSA
GVA growth rate of Medium KTI increased (%) ^g	11.52 (Q1-Q3 2022)	10.6-11.8	10.8-12.0	11.0-12.2	11.2-12.5	11.5-12.7	11.7-13.0	11.7-13.0	NIA	DTI, PSA

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	END OF PLAN PERIOD		
Digital transformation in companies improved (Score 0–10) ^h	5.73 (2022)	5.82	5.91	6.01	6.10	6.20	6.30	6.30	IMD World Competitiveness survey	DTI, Department of Information and Communications Technology (DICT), DOST
GVA growth rate of industry sector sustained (%) ⁱ	7.5 (Q1-Q3 2022)	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	NIA	DTI, PSA
GVA growth rate of manufacturing sector increased (%) ⁱ	5.3 (Q1-Q3 2022)	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	8.0–9.5	NIA	DTI, PSA
Percent of firms with product innovation increased (%) ^j	30.7 (2015)			35.0			50.0	50.0	SIA	DTI, DOST, Philippine Institute for Development Studies (PIDS)
Percent of firms that are innovation active increased (%) ^j	42.9 (2015)			48.0			51.0	51.0	SIA	DTI, PIDS, DOST
Share of high-tech exports to total exports increased (%)	63 (2020)	65.56	68.22	70.99	73.88	76.88	80.0	80.0	World Trade Organization	DTI
Firms adoption of e-commerce via the internet increased (%) ^k	Non-core: 17.7 Core: 22.2 (2017)		24.0		26.0		28.0	28.0	Survey on Information and Communication Technology	DTI, DICT, DOST, PSA
Regional inclusive innovation centers established	11 (2022)						≥1/ Region	≥17	DTI	DTI
Outcome 3: Inter-sectoral Linkages Enhanced										
Number of 6-digit exported products increased ^l	2,915 (2021)	3,073	3,239	3,415	3,600	3,795	4,000	4,000	Foreign Trade Statistics	DTI, PSA
Number of knowledge, innovation, science, and technology parks established	5 (2022)	≥1	≥1	≥1	≥1	≥1	≥1	≥1	Philippine Economic Zone Authority (PEZA) annual report	PEZA

^a This includes manufacture of food products, manufacture of beverages, manufacture of textiles, manufacture of wearing apparel, manufacture of leather and related products, including footwear, manufacture of wood, bamboo, cane, rattan articles and related products, manufacture of chemical and chemical products, manufacture of furniture.

^b Obtained from the Global Innovation Index. The term includes scientists and engineers.

^c Obtained from DOST Compendium of R&D Statistics. Per Philippine Statistics Authority, the term “Scientist” is generally synonymous with the definition of the term “Researcher” as defined in the Frascati Manual.

^d Targets obtained by straight line forecast using 2010–2019 data.

^e Employment generated refers to the additional employment from the preceding year. Data obtained from the Labor Force Survey. The DTI targets an employment generation between 3.45–4.05 million for the industry sector by the end of Plan period. Similarly, the employment generation for manufacturing by the end-of-plan period is between 2.07 and 2.43 million.

^f Includes the GVA for manufacture of basic pharmaceutical products and pharmaceutical preparations, manufacture of computer, electronic and optical products, and manufacture of transport equipment.

^g Includes the GVA for manufacture of chemical and chemical products, manufacture of electrical equipment, manufacture of machinery and equipment except electrical.

^h Based on the IMD World Competitiveness Executive Opinion Survey; targets are based on the scores of the best performer in the ASEAN.

ⁱ Industry and manufacturing growth rates based on Development Budget Coordination Committee projections.

^j Based on the PIDS Survey of Innovation Activities, 2015.

^k Based on the Survey of Information and Communication Technology, 2017.

^l Sourced from the International Trade Center Trademap.

- ¹ Google, Temasek, and Bain and Company. (2021). E-economy SEA 2021 Roaring 20s: The SEA Digital Decade. Retrieved from https://services.google.com/fh/files/misc/e_economy_sea_2021_report.pdf.
- ² Aldaba, R. (2022). Philippine Industrialization: Recovery and Growth Toward Shared Prosperity, Sustainable and Inclusive Economic Development. Paper presented at the UPSEAA Forum. October 07, 2022. Zoom meeting.
- ³ The First Industrial Revolution was driven by the introduction of steam power, which enabled steam-powered mechanization of weaving processes overtaking the use of traditional looms. The Second Industrial Revolution is characterized by the conveyor system transporting automobiles to fixed workstations. The Third Industrial Revolution enabled the automation of industrial processes using electronics and computers. Finally, the Fourth Industrial Revolution is driven by tools such as the Internet of Things, artificial intelligence, cloud computing, and digital platforms.
- ⁴ Aldaba, R. (2022). Philippine Industrialization: Recovery and Growth Toward Shared Prosperity, Sustainable and Inclusive Economic Development. Paper presented at the UPSEAA Forum. October 07, 2022. Zoom meeting.
- ⁵ BusinessWorld Online. (2022). Electronics Sector Sets 10% Growth Target for 2022. Retrieved from <https://www.bworldonline.com/top-stories/2022/01/28/426426/electronics-sector-sets-10-growth-target-for-2022/>.
- ⁶ October 2022 PMI figures for China (49.2), South Korea (48.2), Taiwan (41.5), and the Euro Area (46.4) have fallen below 50.0 signaling a contraction of manufacturing activity while the United States and Japan have PMIs that are dangerously close to a contraction at 50.4 and 50.7, respectively.
- ⁷ Arenas, G. and S. Coulibaly. (2022). A New Dawn for Global Value Chain Participation in the Philippines. International Development in Focus. Washington, DC: World Bank. doi:10.1596/978-1-4648-1848-6.
- ⁸ Based on a JETRO survey as cited by World Bank. 2020. Next Administration: A Reform Agenda for Manufacturing Development. Washington, DC.
- ⁹ World Economic Forum. (2018). Readiness for the Future of Production Report 2018. Retrieved from https://www.weforum.org/reports/readiness-for-the-future-of-production-report-2018/?DAG=3&gclid=CjwKCAiAnZCdBhBmEiwA8nDQxRpXRXLdZ8LOoErGGQx9q83bW3nONdsSuBkUFFDsXBYd4s-VeZ8nOxoCn4kQAvD_BwE.
- ¹⁰ Particular attention should also be given to improving access to finance of women-led MSMEs.
- ¹¹ Department of Trade and Industry (DTI). (2021). MSMEs Urged to Embrace Digitalization, Innovation. Philippine News Agency. Retrieved from <https://www.pna.gov.ph/articles/1149883>.
- ¹² Following the latest nomenclature of the OECD (Indicators 2020) across economies, high R&D-intensive industries include aircraft, computer, electronics, and optical products, pharmaceutical, and publishing including software. Medium R&D-intensive industries include chemicals (excluding pharmaceuticals), electric equipment, other machinery & equipment, and transportation equipment.
- ¹³ Tier 1 applies to job and value creation activities, value chain upgrading, and support sectors critical to industrial development. Tier 2 applies to activities critical to industrial development and import-substituting activities. Tier 3 applies to R&D and breakthroughs in science; health; and generation of new knowledge & IP, commercialization, and highly technical manufacturing.
- ¹⁴ Department of Science and Technology. (2022). Harmonized National Research and Development Agenda 2022–2028. Philippine News Agency. Retrieved from <https://www.pna.gov.ph/articles/1149883> https://www.dost.gov.ph/phocadownload/Downloads/Resources/Quick_Links/HNRDA_2022-2028.pdf.
- ¹⁵ Philippine Economic Zone Authority. (2022). Excellence and Innovation in Investment Promotion PEZA's Milestones at 27. <https://www.peza.gov.ph/press-releases/excellence-and-innovation-investment-promotion-peza%E2%80%99s-milestones-27>.
- ¹⁶ Aldaba, R. and A.D. Quejada. (2022). "FDI Spillover Effects: Evidence in the Philippines." ERIA Discussion Paper Series No. 437.
- ¹⁷ The Smart Industry Readiness Index, developed by the Singapore Economic Development Board, is a suite of frameworks and tools designed to help manufacturers start, scale, and sustain their manufacturing transformation journeys. It covers three major blocks: process, technology, and organization, each of which are comprised of pillars and dimensions to be evaluated to generate a holistic Industry 4.0-readiness assessment.

07

Reinvigorate Services



Reinvigorate Services

The services sector will shift from its current low productivity level to enable the Philippines to become a modern, productive, and resilient global leader providing higher value-adding and differentiated services. Market expansion and digital transformation will create the pathways for services firms to enhance their strong presence in markets, reach new market segments and buyer geographies, and pursue diversification. The sector will gain strength, speed, and size from the dynamic ecosystem of technology, talent and skills development, intellectual property rights protection, and competition for creativity and innovation. A strong public–private–social partnership will be nurtured to expand investments in the regions and enhance strategic inter-sectoral linkages for inclusive, resilient, and sustainable participation of the Philippines in global value chains that mark the Fourth Industrial Revolution.

This chapter presents the challenges in reinvigorating services and the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) market expansion achieved; (b) creativity and innovation in services value proposition strengthened; and (c) inter-sectoral linkages enhanced.

Assessment and Challenges

For the first three quarters of 2022, the services sector grew by 8.9 percent year-on-year. Other services activities recorded the highest growth at 33.2 percent, followed by accommodation and food service activities at 29.7 percent, and transportation and storage at 25.9 percent. The services sector remains the largest sector in the economy with a share of 60.9 percent in gross domestic product (GDP). The sector is still on track to achieving the target growth of 7.3 to 8.3 percent for the year. Increased economic activities and improved consumer and business confidence brought about by the easing of pandemic restrictions are expected to accelerate the sector's full recovery in 2022.

Beyond their direct contributions to growth in terms of generating jobs, export

revenues, and investments, services bind the value chain links across economic sectors. The share of services in GDP has increased over time, influenced by the rise in consumption of services by the production sectors (including services itself), from 35 percent in 2006¹ to 41 percent in 2018.² The embodied services (shares of services in total intermediate inputs) in manufacturing increased from 18 to 26 percent during the same period.³ However, the Philippines' manufacturing exports have weak linkages with modern services, such as business and financial services,⁴ research and development (R&D), and design during pre- and post-production stages.

While the services sector is the largest employer with an average of 57 percent share

in total employment from 2017 to 2021, it is still dominated by low-pay jobs concentrated in low-skills domestic services (i.e., retail trade, administrative and support services, arts, entertainment, and recreation, and other community and personal services) that accounts for more than half of the sector's gross value-added, and employs 69.4 percent of the total workforce in the services sector.

The overall labor productivity level of services sector in 2021 (PHP0.44 million at 2018 constant prices) is low and slower than the productivity of the industrial sector (PHP0.69 million at 2018 constant prices). From 2017 to 2021, employment in services grew by an average of 3.2 percent per year while productivity increased by 1.3 percent per year. In terms of labor productivity, the information and communication services grew the fastest (5.3%), followed by finance and insurance activities (4.7%), public administration and defense (3.7%), and education (3.3%). The sectors heavily linked to production experienced decline in productivity during the same period: wholesale and retail trade (-0.4%), transportation and storage (-1.3%), and professional and business services (-5.8%).

Key opportunities for job creation and increased participation in higher value-adding services include: (a) growth trajectory of the information technology and business process management (IT-BPM) sector (8% revenue growth per year in the next six years) to create one million direct and additional 1.1 million indirect jobs by 2028;⁵ (b) openness of Philippine tourism and potentials to surpass its 2019 record (12.9% share of GDP and 5.7 million employment);⁶ (c) economic reforms such as

the Amendments of the Public Services Act, Foreign Investment Act (FIA), and the Retail Trade Liberalization Act (RTLA) to catalyze investments and talents and skills transfer; (d) laws such as the Philippine Creative Industries Development Act (PCIDA), Innovation Act, Innovation Startup Act, and the Digital Competitiveness Act that will foster creative industries (7.9% of GDP in 2018)⁷ and science–technology–innovation (STI) driven industrialization; and (e) growth of the digital economy (9.6% of GDP in 2021)⁸ and use of automation and artificial intelligence (AI).

Apart from the overall low productivity of the sector, the disparity in performance of the services sector across Philippine regions also needs to be addressed to promote inclusive growth.⁹ The binding constraints to increasing productivity include high shipping and logistics cost, lack of access to reliable and advanced information and communications technology (ICT) infrastructure, lack of competition, lack of access to markets and capital, mismatch in skills and lack of skilled talent for niche job roles, and vulnerabilities of communities to the impact of climate change.¹⁰ Increasing international tourism expenditures and foreign direct investment will be greatly needed to match the expected rise in capital importation associated with upgrading the global value chain (GVC) in manufacturing. The economic reforms and their respective implementing rules and regulations will facilitate the flow of investments in the regions, modernize the services sector, accelerate the country's economic recovery from the coronavirus disease (COVID-19) pandemic, and promote inclusive growth.

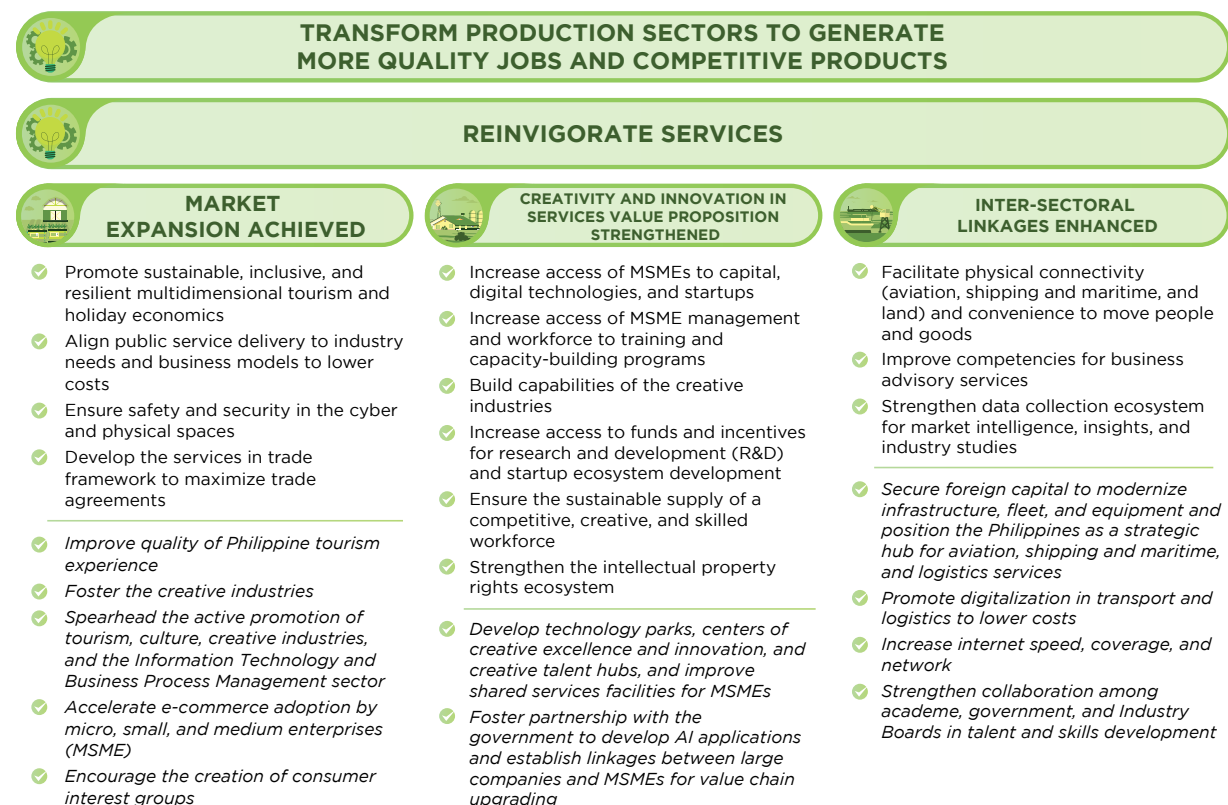
Strategy Framework

The main goal is to reinvigorate the services sector to generate more quality jobs and competitive products. During the Plan period, the government and private sector will strengthen their partnership to expand markets and achieve scale through aggressive marketing and promotions, trade, and global partnerships, and facilitate the use of digital technologies and processes to raise productivity in low-skills services. Building the capabilities of more companies is important to shift to higher value and differentiated services and high-skills jobs. To facilitate this upgrading, they need new technologies, skilled management and workforce, and a steady supply of talent. New technologies will allow them to reduce costs, create new services, and operate

with new and dynamic business models. The three elements of technology, training, and talent can build a more robust and dynamic ecosystem driven by creativity and innovation. Finally, investments to enhance inter-sectoral linkages, especially in liberalized sectors enabled by the amendments to the Public Services Act, FIA, and RTLA, present opportunities to magnify the spillover effects of technology, training, and market growth toward greater inclusion and overall transformation.

Three sector outcomes are envisioned: (a) market expansion achieved; (b) creativity and innovation in services value proposition strengthened; and (c) inter-sectoral linkages enhanced (See Figure 7.1).

Figure 7.1 Strategy Framework to Reinvigorate Services



Strategies

The following strategies will be implemented to achieve the sector and subsector outcomes and targets.

Outcome 1: Market expansion achieved

Promote sustainable, inclusive, and resilient multidimensional tourism and holiday economics

Diversify product portfolio through multidimensional tourism that offers a range of experiences by highlighting the strengths of the Filipino people, natural and cultural endowments in culture and heritage, arts, food and gastronomy (including Halal), nature-based farm tourism, cruises, film, medical, health and wellness, meetings, incentives, conventions, and exhibitions. The Department of Tourism (DOT) will accelerate the roll out of the product development manual and training modules for local government units (LGU) to increase the readiness of products and destinations for safe, smart, and sustainable tourism.

Increase participation in high-impact international events and dedicated investment missions to build on positive perceptions and success stories of destinations and people. Promote partnerships with the Department of Trade and Industry (DTI) and Department of Foreign Affairs in securing and disseminating market intelligence and in showcasing the assets of the Philippines in creative tourism.

Improve local tourism governance by transforming LGUs into destination management organizations with strong private sector partnership. The LGUs

will spearhead the development and implementation of their local tourism plans and institutionalization of tourism offices for sustainability. The LGUs, with assistance from the DOT and Tourism Infrastructure Enterprise Zone Authority, will prioritize the provision of destination infrastructure (e.g., water, sanitation, solid waste management, health care facilities, renewable energy, early warning systems) to increase the carrying and adaptive capacities of destinations against future crises and climate change impact.

Promote “holiday economics” and invest in year-round, domestic, multi-media campaign together with the LGUs, private sector, and educational institutions to encourage Filipinos to travel, promote pride of place and culture, and become ambassadors of Philippine tourism.

Improve the quality of the Philippine tourism experience

Promote national accreditation such as the progressive accreditation system and ANAHAW Philippine Sustainable Tourism Certification to build the confidence of markets and enterprises. Advocate enterprises to offer sustainable services as key differentiators of Philippine tourism using international standards for low-carbon emission tourism value chains.

Increase the capacity of the DOT regional offices and the LGUs to assist enterprises' complete accreditation. The initiative aims to increase the number of enterprises that embrace quality standards in facilities and services for the benefit of tourists and enterprise owners.

Strengthen transfer of knowledge and practices in promoting Filipino cultural values as a competitive advantage in human capital development and in achieving sustainable tourism. In partnership with the DOT, the private sector will promote partnerships between large enterprises and micro, small, and medium enterprises (MSME) to propagate high service quality in tourism, curate mutually beneficial authentic tourism experiences with local communities, and scale up sustainable tourism practices.

Foster the creative industries

Support the formation of the Philippine Creative Industries Development Council (CIDC) as provided under Republic Act No. 11904. The DTI will chair the CIDC, which will be composed of 19 members, ten of which should be ex-officio (government members) and nine regular members from the private sector. The CIDC will prepare the Creative Industries Development Plan, Creative Industries Investments Priority Plan, and undertake road-mapping efforts for the different identified creative sectors under the nine domains of the PCIDA.

Spearhead the active promotion of tourism, culture, creative industries, and the Information Technology and Business Process Management sector

Harness the creative industries to increase positive perception of tourism destinations and build the distinctly Filipino brand of tourism and culture. Expand marketing thrusts by actively participating in domestic and international travel trade shows, familiarization trips, and consumer activation programs supported by the government.

Partner with international organizations and networks of global Filipino communities to increase market access of Philippine destinations and Filipino creative designs and products.

Further strengthen presence in markets such as North America where the Philippines enjoys strong market shares in products, such as contact centers and financial and professional services. Protect the country's dominant position in service in these markets, with the IT and Business Process Association of the Philippines, subsector associations, and firms as prime movers guided by the industry roadmap, i.e., The Big PH IT-BPM Leap: The Philippine IT-BPM Industry Roadmap 2028.

Deepen penetration for new high value-adding and high-yielding products (e.g., financial, health care, retail, technology, media, and telecommunication, cybersecurity) in Europe and Asia-Pacific.

Demonstrate and showcase existing capabilities of the Philippines to offer high value-adding and differentiated services, such as transportation design; services using AI; digital and data services (blockchain, cloud and mobile apps, Internet of Things, augmented reality, virtual reality, mixed reality, Big Data analytics); e-gaming; animation; audio-visual services; and digital applications in health services.

Align public service delivery to industry needs and business models to lower costs

Streamline requirements and procedures and implement 24/7 operations of agencies at ports and airports to reduce transport and logistics costs. Remove redundancies and reduce the steps involved in the submission of requirements to regulatory agencies (e.g., permits and licenses; documentary requirements; client steps; and fees in cold storage, freight forwarding, trucking, warehousing, and domestic shipping businesses). Harmonize accreditation processes between DTI and concerned agencies such as the Civil Aeronautics Board for freight forwarding companies. Ensure the availability of budget for agencies, such as the Bureau of Customs (BOC), Bureau of Animal Industry (BAI), Bureau of Plant Industry (BPI), and Bureau of Fisheries and Aquatic Resources (BFAR) to enable them to hire human resources and procure the right system and software to support efficient 24/7 operations. The LGUs are encouraged to remove costs such as pass-thru fees and ensure safe entry and exit of goods in their respective areas of jurisdiction.

Facilitate business name registration, licensing, and social protection of enterprises and gig workers (freelancers, contractors, independent professionals), and enable more women to engage in entrepreneurial activities (See Subchapter 3.2).

Ensure safety and security in the cyber and physical spaces

Adopt a legal framework to strengthen cybersecurity and policies on minimum information security standards to protect critical information infrastructure and the ICT systems of public institutions, transportation, and e-commerce transactions, and increase capacity of the private sector to mitigate piracy of creative outputs.

Implement the Financial Consumer Protection Act that better enables financial regulators to address consumer complaints on cybercrimes and enforce sanctions against erring entities.

Establish a Transportation Safety Board to serve as an independent investigatory, research, and standards-setting agency dedicated to promoting safety in all modes of transportation (i.e., land, sea, air, and railway).

Develop the services in trade framework to maximize trade agreements (See Chapter 9)

Accelerate e-commerce adoption by MSMEs

Engage businesses in awareness and advocacy campaigns on the benefits of e-commerce in increasing their visibility

and global reach. Private technology and platform providers, industry associations, and conglomerates will be encouraged to scale up collaboration with the DTI and partner agencies to increase the adoption of e-commerce tools by MSMEs in services (e.g., wholesale and retail trade, tourism, and arts and culture) to improve their processes, and to accept digital payments toward a cash-lite economy.

Establish secure e-payment systems and ensure consumer and supplier protection online to promote trust and confidence in the digital uptake. The enhanced protection will create value through increased traceability of goods, including imported orders.

Promote cybersecurity culture. Create greater awareness of the global and local cybersecurity context, including the threat

landscape among employees, industry partners, and customers.

Encourage the creation of consumer interest groups

Expand the participation of communities in promoting competition in services through coalition-building, alliances, and partnerships. This aims to produce social capital to resolve collective issues and challenges encountered in modernizing the services sector; increasing entry of foreign players; and addressing anti-competitive practices as well as poor environmental, social, and governance practices.

Promote consumer and producer rights protection by streamlining processes for resolution of disputes and complaints that may be related to defective goods, fraud, cybercrime, payment security issues, and security of websites.

Outcome 2: Creativity and innovation in services value proposition strengthened

Increase access of MSMEs to capital, digital technologies, and startups

Invest in STI-driven upgrading of MSMEs, including process, product, organization, and marketing. Through the Center for Artificial Intelligence Research (CAIR) and DTI's Regional Inclusive Innovation Centers, MSMEs will gain access to ideas, technology, and talents to improve firm performance. Under the Philippine Innovation Act, entities from the creative industries may avail of shared service facilities from the DTI, as well as the infrastructure and R&D support

programs of the Department of Science and Technology.

Increase access of MSME management and workforce to training and capacity-building programs

Enhance digital, management, and entrepreneurship competencies of MSMEs. Through the implementation of the Digital Workforce Competitiveness Act, the DTI, in coordination with relevant government agencies and the private sector, shall establish co-working or shared service facilities to

support the development and enhancement of digital skills and competencies of entrepreneurs, especially women, and the current and future workforce.

The Philippine CIDC will undertake training and capacity building in business development to enhance financial literacy, ethics, digital skills, taxation, design thinking, contracts, negotiations, and entrepreneurship.

Develop technology parks, centers of creative excellence and innovation, and creative talent hubs, and improve shared services facilities for MSMEs

Match real estate development projects to the requirements of the creativity, innovation, and entrepreneurship ecosystems. The IT-BPM companies will have dedicated “creative hubs” located in campuses with flexible workspaces and common infrastructure to support creative freelancers. Creative hubs with training and advanced opportunities; advanced research labs; and business support centers (for legal, mentoring and guidance services, linkages with investors, and repositories of creative images as sources of inspiration) will be established to support MSMEs, creative entrepreneurs, and startups.

Foster partnership with the government to develop AI applications and establish linkages between large companies and MSMEs for value chain upgrading

Private sector investors will be encouraged to take part in the CAIR. This will expand the Center’s business segments and increase

the number and scope of AI projects that can be accommodated.

Build capabilities of the creative industries

The DTI as Chair of the CIDC will lead the formulation and implementation of a Philippine Creative Industries Development Plan mandated under RA 11904. This plan will define the value creation, market creation and expansion, investment targets, intellectual property targets, and other strategies, among others.

Promote the *Malikhaing Pinoy* Creative Market Acceleration Program, which is a handholding program and support for trade and investment promotion to increase value chain participation of creative industries.

Increase access to funds and incentives for R&D and startup ecosystem development

Provide funds and incentives, such as low-interest loans, scholarships, research grants, training subsidies to promote startups, digital technology careers, innovations, and research projects that address industry needs. Financial capital is provided under the Corporate Recovery and Tax Incentives for Enterprises Act, Innovation Act, Innovation Startup Act, and Digital Workforce Competitiveness Act. These legislations support startup entrepreneurs, scientists, and researchers to achieve STI interventions, accelerate the transfer and commercialization of generated technologies, and strengthen the capability of human resources and institutions to undertake R&D.

Craft and implement programs to build the startup ecosystem. Create a common understanding of the startup journey and ecosystem development among government agencies toward the alignment and harmonization of startup policies and programs. The government shall also provide strong focus on promoting innovation and entrepreneurship, create a more enabling business environment for startups, and allow more foreign participation.

Ensure the sustainable supply of a competitive, creative, and skilled workforce

Implement the Philippine Tourism Human Capital Development Plan 2021–2025 to ensure the steady supply of trained human resources. The development of competent, world-class Filipino tourism professionals through the education system is the core of the plan. The Filipino Brand of Service Excellence Program of the DOT will continue to promote the best qualities and positive values of Filipino hospitality.

Establish a Creative Educational Plan in partnership with the private sector and the academe. The Department of Education (DepEd) and Commission on Higher Education (CHED) shall support and develop relevant programs and provide scholarships to deserving students enrolled in programs and courses related to creative industries. The Technical Education and Skills Development Authority (TESDA) shall also provide technical and vocational training through scholarship programs and continuous education. And the CIDC shall provide

technical and financial assistance to providers of non-formal learning modalities.

Appropriate funds for educational institutions that will revise or develop new curricula to address learning gaps. The DepEd, CHED, and TESDA shall continue to extend incentives to academic institutions that provide funds and grants for the research of their students and faculty on the development and promotion of the services sector.

Strengthen collaboration with the private sector in mentoring programs; promotion of science, technology, engineering, entrepreneurship, arts, and mathematics careers; and interventions to build talent in differentiated services proposition. This initiative aims to increase financial, digital, and cybersecurity literacy; and develop entrepreneurial and creative skills from early schooling by revising curricula (inclusion of mandatory basic computer education, introduction of relevant electives and/or micro-credentials across courses) to support IT-BPM upgrading.

Strengthen the intellectual property rights ecosystem

Provide capacity-building measures through the CIDC and partners in facilitating the registration of patents, and monitoring and protection of intellectual property rights, traditional cultural skills of Filipino creative industry stakeholders, and indigenous cultural communities against infringement.

Accede to the 2005 United Nations Educational, Scientific, and Cultural Organization Convention. Ratifying this

Convention will further promote and protect the works of creatives in the country, as it focuses on protecting the diversity of cultural expressions all over the world. It highlights

the creative industries, which have become important drivers of cultural and economic development of nations.

Outcome 3: Inter-sectoral linkages enhanced

Facilitate physical connectivity (aviation, shipping and maritime, and land) and convenience to move people and goods

Increase access to tourist destinations through an improved and sustainable transportation network, and digitalization of tourist services to increase yields from higher spending and length of stay in a wide range of destinations. Develop and expand inter- and multi-modal tourism routes (air, shipping and maritime, land) supported by the DOT, Department of Transportation, and Department of Public Works and Highways. Provide support for update of the National Cruise Tourism Strategy to enhance the contributions of local and international cruise tourism and maritime industries to the Philippine blue ocean economy and jobs.

Promote barrier-free tourism by providing technology-enabled real-time information and assistance, and the Filipino brand of service excellence and care to visitors, particularly those with special needs.

Secure foreign capital to modernize infrastructure, fleet, and equipment and position the Philippines as a strategic hub for aviation, shipping and maritime, and logistics services

Leverage the Public Services Act, FIA, and RTLA amendments to attract global partners and innovators (See Chapter 9), to

modernize services and to reduce overall transport and logistics costs. Through partnerships with foreign companies, the private sector will harness the strategic locational advantage and archipelagic endowments of the country by connecting its various islands and destinations. This supports the objectives under the Maritime Industry Development Plan 2019–2028 to accelerate the achievement of a nationally integrated and globally competitive maritime industry, and to position the country as an aviation hub in Asia. Foreign capital shall be utilized to increase the capacity of the aviation, maritime, and shipping companies to: (a) invest in green, modern, and resilient hubs, equipment, and fleet; (b) build capabilities to participate in the transportation GVCs (design, maintenance, repair, and overhaul); (c) upgrade and align education and training programs with international standards; (d) promote best safety and security practices; and (e) develop modernized gateways and clusters to attract international logistics, retail, IT-BPM, and tourism companies.

Promote digitalization in transport and logistics to lower costs

Promote 24/7 operations of businesses, including brokerage houses, distribution centers, warehouses, shipping lines offices, and banking facilities. Advocate the BOC and partner agencies such as BAI, BPI, and BFAR

to shift to 24/7 services and match the 24/7 port operations. This initiative of the Logistics Services Philippines aims to ensure seamless, secure, and timely flow and delivery of goods to customers.

Increase utilization of technology in logistics processes to improve coordination among stakeholders (i.e., brokers, shipping lines, airlines, cargo consolidator and freight forwarders, and government). In partnership with the DTI, the Logistics Services Philippines and its partners shall collaborate to increase the use of digital technologies, disseminate correct information, and promote real-time monitoring for improved transparency and efficiency in the mobility of goods.

Expand participation in the modernization of existing airports, ports, and land transport terminals to reduce overall transportation costs and shipment delays (See Chapter 12).

Increase internet speed, coverage, and network

Expand fiber-optic, broadband, and 5G network in areas identified by industries on a priority basis for fast speed, high density of IT-BPM workers, clustering of tourism and retail facilities, and activities, ports, airports, transport terminals, logistics facilities and creative industries.

Build and operate broadband facilities to offer internet services in underserved and unserved areas. Use direct access to all satellite systems, whether fixed, mobile, international, or domestic, to connect local businesses and tourism sites with their developing markets and to build resilience.

Improve competencies for business advisory services

Increase readiness of local destinations and LGUs in hosting investments. Led by the DTI-Board of Investments, in collaboration with sector- or area-focused investment promotion agencies, private sector, and academe, develop an ecosystem of advisory services to enable LGUs to acquire strategic skills and capacitate them to match local service firms with investors, build the expertise of LGUs in risk management, and conduct due diligence.

Strengthen data collection ecosystem for market intelligence, insights, and industry studies

Promote the active participation of colleges and universities in collecting and analyzing data in the services sector. Subsequent research outputs of the academe will help increase access to information by MSMEs that can improve their linkages with markets, and enhance their services and ability to create and offer new and high-quality services. The government shall invest in the development of satellite accounts for other services, such as transportation and logistics, including subnational satellite accounts (tourism, digital economy, creative industries, and logistics), on a phased priority basis.

Increase the capacities of destination stakeholders to adopt digitally enabled data collection tools and measures. Pivoting to Big Data will complement the collection of traditional indicators, support product and market development, reduce costs and create value along the tourism supply chain,

and engage local communities for improved policy-making processes.

Strengthen regular and active participation of private sector and communities to promote free flow of information with the government. Associations will share insights, market intelligence, and data on the sectors they represent and contribute to the development of online directories and registries. Councils and networks such as the Philippine Creative Cities Network and the Local Culture and Arts Council for the development of the local creative industries under the PCIDA will advance collaboration and competitiveness by enhancing linkages between industries and government.

Through the CIDC, lead the development of the Creative Industry Data and Information Management in coordination with the Philippine Statistics Authority (PSA) and other relevant national government agencies to set up a satellite account for creative industries that also covers data collection and management.

Strengthen collaboration among academe, government, and Industry Boards in talent and skills development

Revise existing curricula or design new courses based on the needs of the industries. The private sector will work closely with the academe and government agencies in the conduct of tracer studies; design and implementation of immersion and internship programs for faculty and students in the country and abroad; and facilitation of development of labor market information systems (*See Chapter 4*).

Expand talent pool through the transfer of international talents and skills, and exchange programs for faculty and students (*See Chapter 4*). Promote diversity to nurture creativity in the private sector by partnering with international networks of suppliers, buyers, and educational institutions.

Provide information and expert advice on the must-have skills and competencies under the Philippine Skills Framework (PSF) Initiative to boost the capacity of the Philippines in skills of the future.¹¹ Under the PSF on logistics and supply chain, the first to be launched by the DTI under the initiative, the sector will collaborate with TESDA to develop course modules and assessment tools.¹²

Legislative Agenda

Table 7.1 presents the priority bills for the 19th Congress to reinvigorate services.

Table 7.1 Legislative Agenda to Reinvigorate Services

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Update RA 10372 (An Act Amending Certain Provisions of RA 8293, otherwise known as the "Intellectual Property Code of the Philippines, and for Other Purposes")	This aims to commercialize technologies and support the development of creative industries. This will enhance the attractiveness of the Philippines as an investment destination that places high value on intellectual property creation, protection, utilization, and commercialization, as well as prevent piracy in the physical and digital markets.	Intellectual Property Office of the Philippines
Open Access in Data Transmission Act	This seeks to level the playing field in the data transmission and telecommunications market. Its passage will strengthen value chain linkages in the industry and services sectors and facilitate the realization of the full potential of e-commerce and digital trade.	Department of Information and Communications Technology (DICT) and National Telecommunications Commission (NTC)
Internet Transactions Act	The bill aims to define the scope and coverage of internet transactions, apart from the sale or exchange of digital products, and lay down the code of conduct and qualifications for businesses who wish to engage in e-commerce. It also proposes the creation of an E-commerce Bureau to handle complaints on internet transactions, protect consumer rights, and facilitate the speedy resolution of complaints, among others.	DTI
International Maritime Competitiveness Act	This will address the expensive shipping rates in the Philippines due largely to the imposition of "excessive, arbitrary, and unreasonable" shipping charges by foreign shipping lines, such as the "destination and origin charges," container deposit fees, container cleaning fees, detention and demurrage charges, and port congestion charges.	Maritime Industry Authority

Results Matrix

Table 7.2 presents the indicators and targets during the Plan period to reinvigorate services.

Table 7.2 Results Matrix: Reinvigorate Services

INDICATOR	BASELINE (2021)	TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Intermediate Goal									
Chapter Outcome: Services Reinvigorated									
Gross value-added growth rate in the services sector improved (%)	8.9 (year-to-date, Q1-Q3 2022)	6.4-7.9	6.4-7.9	6.4-7.9	6.4-7.9	6.4-7.9	6.4-7.9	National Income Accounts (NIA)	DTI
Labor productivity growth in services improved (%)	-6.4	5.0 - 8.5	5.0 - 8.5	5.0 - 8.5	5.0 - 8.5	5.0 - 8.5	5.0 - 8.5	NIA, Labor Force Survey	Department of Labor and Employment
Contribution of tourism to gross domestic product [(GDP) improved (%) ¹²	5.2	TBD	TBD	TBD	TBD	TBD	TBD	Philippine Tourism Satellite Accounts (PTSA)	DOT
Total tourism investments (as a proportion of total investments) increased ¹²	8.8	TBD	TBD	TBD	TBD	TBD	TBD	PTSA	DOT
Contribution of e-commerce to GDP increased (%) ¹³	1.7	TBD	TBD	TBD	TBD	TBD	TBD	DTI eCommerce Roadmap	DTI

¹ Satellite Accounts prepared by the Philippine Statistics Authority.

² Targets will be based on the National Tourism Development Plan 2023–2028, expected to be completed by Q1 2023.

³ Targets will be based on the Philippine E-Commerce Roadmap 2023–2025, expected to be completed by Q1 2023.

- ¹ Serafica, R.B. 2014. "Formulating the Philippine Services Strategy for Inclusive Growth." Discussion Paper Series No. 2014-22. PIDS. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1422.pdf>
- ² PSA. 2021. 2018 Input-Output Tables. <https://psa.gov.ph/content/psa-releases-2018-input-output-tables>.
- ³ The shares of services would be higher with the inclusion of embedded services in the inputs (e.g., in-house design of manufacturing firms) or bundled together in a good (e.g., after-sales maintenance). These values are not currently monitored.
- ⁴ Arenas, G. and S. Coulibaly, eds. 2022. A New Dawn for Global Value Chain Participation in the Philippines. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1848-6.
- ⁵ Everest Global Inc.. 2022. The Philippine IT-BPM Industry Value Proposition. Presentation during the IT and Business Process Association of the Philippines "International Innovation Summit on the Philippines IT-BPM Industry Roadmap 2028", September 27–29, 2022, Manila. <https://www.everestgrp.com/international-innovation-summit.html>.
- ⁶ PSA. 2022. Philippine Tourism Satellite Accounts (PTSA) Report. <https://psa.gov.ph/content/philippine-tourism-satellite-accounts-pts-report>.
- ⁷ Mapa, C. D. S. et. al. 2022. The Philippine Creative Economy Satellite Accounts: Measurement and Challenges. Paper presented during the 15th National Convention on Statistics, 4 October 2022, Quezon City.
- ⁸ PSA. 2022. Philippine Digital Economy Satellite Accounts 2021. Quezon City.
- ⁹ Serafica, R.B., J. M. Vergara, and Q.C.A. Oren. 2021. "Regional Analysis of the Philippine Services Sector." Research Paper Series No. 2021-04. PIDS. <https://www.pids.gov.ph/publication/research-paper-series/regional-analysis-of-the-philippine-services-sector>.
- ¹⁰ Synthesis of assessments, studies, and inputs provided by various sectors.
- ¹¹ IT-BPM: analytical skills, digitally skilled talent, project management, managerial and soft skills, sector-specific skills. Tourism: operational skills; soft skills; technical, quality, professional, and leadership skills; health and safety skills; and product-specific skills. E-commerce: information technology and/or digital literacy skills, marketing and customer service skills, financial literacy, entrepreneurship. Creative industries: soft skills, critical thinking and problem-solving skills, technical skills, managerial and/or entrepreneurial skills, functional creations skills.
- ¹² Functional Skills: management skills (operations, procurement, and supply); staff skills (driving, warehousing, inventory, logistics and forecast planning, logistics and supply chain, transport and/or traffic load planning); enabling skills (leadership, business and ethics, professionalism, customer engagement and relationship); emerging skills (AI-driven services, robotics, analytics, critical thinking, problem solving).

08

**Advance Research
and Development,
Technology, and Innovation**

Advance Research and Development, Technology, and Innovation

Research and development (R&D) involves creative work undertaken on a systematic basis to produce knowledge that can be used to generate new technologies and innovations. R&D, technology, and innovation are drivers of long-term economic growth and social progress. With the rise of digital transformation, strategies will be pursued to develop high-value R&D products, technologies, and innovations that will boost the efficiency and competitiveness of various sectors.

The sector will implement a set of integrated strategies to (a) advance R&D, technology, and innovation from knowledge creation to commercialization of R&D products; and (b) reinforce the innovation and entrepreneurship ecosystem. The strategy framework views R&D, technology, and innovation generation as a continuum encompassing theoretical conception through basic research, technical invention, and commercial use. It seeks a balanced and strong support for both the knowledge-seeking and commercializing purposes of research, and the enabling environment that fosters a culture of innovation and entrepreneurship.

This chapter presents the challenges in advancing R&D, technology, and innovation, including the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) basic R&D and knowledge creation strengthened; (b) market-driven and customer-centered research and development advanced; (c) technology extension, adoption, utilization, and commercialization scaled-up; and (d) innovation and entrepreneurship accelerated.

Assessment and Challenges

The Philippines ranked 59th in the 2022 Global Innovation Index (GII),^{1,2} sliding down eight places from its 2021 ranking. Likewise, the country's rank in innovation inputs dipped from 72nd in 2021 to 76th in 2022. Innovation outputs fell from 40th in 2021 to 51st in 2022, largely due to decreased performance scores in knowledge and technology outputs, which are mainly a function of knowledge creation, knowledge impact, and knowledge diffusion. The weakest performance recorded in the country was posted by institutions.

The critical challenges affecting the sector are as follows:

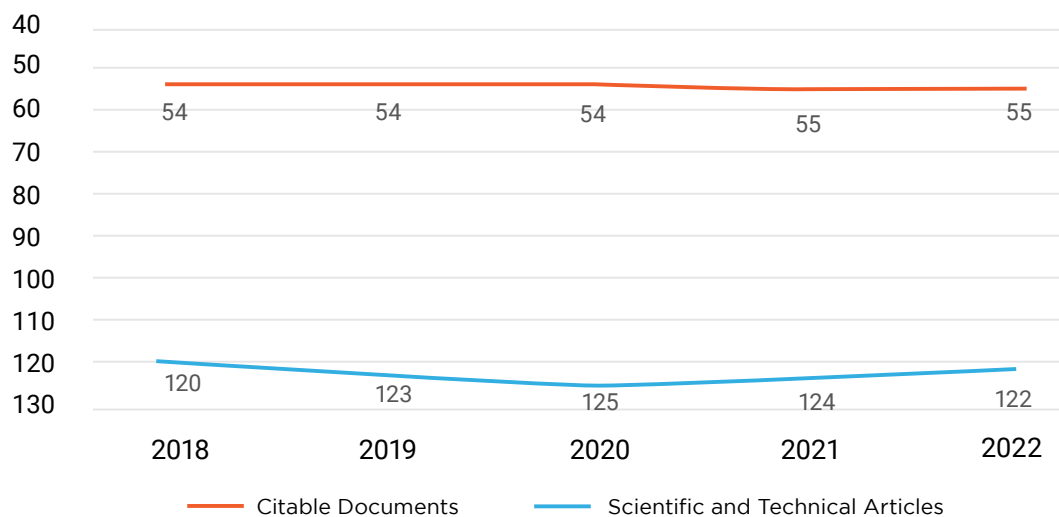
Inadequate human resources in science-technology-innovation (STI), and R&D. The country's capacity to generate new knowledge and technology is dependent on its human resources. Although the country has relatively high 2022 GII score in "Graduates in Science and Engineering," it only has less than 174 full-time researchers per million population, ranking 84th out of 132 countries.

Underdeveloped research culture and productivity. The capacity to create and discover new knowledge and explore its applications are important considerations in advancing R&D, technology, and innovation. Figure 8.1 illustrates the low

levels of knowledge creation outputs in terms of scientific and technical publications, and citable documents, which measures

both the productivity and citation impact of publications and the state of knowledge creation.

Figure 8.1 Global Innovation Index Rank in Sub-Index Related to Knowledge Creation



Sources: World Intellectual Property Organization. Various years. *Global Innovation Index*. Geneva. https://www.wipo.int/global_innovation_index/en/; Dutta, S., B. Lanvin, L. Rivera León, and S. Wunsch-Vincent, eds. 2022. *Global Innovation Index 2022: What Is the Future of Innovation-Driven Growth?* Geneva: World Intellectual Property Organization.

Moreover, the present government procurement process delays the implementation of R&D programs due to restrictive regulations leading to low research productivity, publication potential, and commercialization of innovations.³

Insufficient spending on R&D. The country's gross expenditure on R&D (GERD) stands at 0.32⁴ percent, which is substantially below the global average of 2.04 percent and the 1 percent benchmark recommended by the United Nations Educational, Scientific, and Cultural Organization. The government share to the total R&D expenditure is at 39 percent, while the private sector is at 61 percent. The 2022 GII ranked the Philippines 75th in GERD.

Underdeveloped linkages among stakeholders in the R&D, technology, and innovation ecosystem. The Philippines ranked 64th in the 2022 GII on University-Industry Collaboration on R&D. Most

universities perceive assisting companies as outside of their core mission.⁵

Lack of focus on information about markets or users and market system requirements. The proverbial orientation of producing knowledge for knowledge's sake appears to characterize much of the R&D projects. It has been noted that considerations about markets, users or adopters of R&D products and their needs are still limited in the research process.⁶

Need for a more vigorous intellectual property (IP) culture. The 2022 GII report showed attestable dips in scores in Industrial Designs (ID), -10 spots in ranking; Cultural and Creative Services Exports, -9; Utility Models, -7; Patent Families, -7; and Trademarks -3.⁷ The report also noted that the country dropped by 10 places in terms of innovation outputs as seen in the decrease in percentage points for the sub-indicators (knowledge and technology output pillar):

patents by origin, IP receipts, and creative and cultural exports. Although the declines may be attributed to the lack of filing activity during the pandemic, the two-year (2021 and 2022) consecutive drop in the GII ranking calls for a need to improve the country's IP culture by encouraging the registration of IPs, strengthening the enforcement of IP laws, and promoting collaborations among stakeholders to transform valuable IP assets that are relevant and useful to industries.

Barriers to building an innovative and entrepreneurial culture. Challenges remain at the formation level, such as instilling the value of innovation and entrepreneurship, integrating this orientation in the education

curriculum at all levels, and reskilling human resources. Business regulation issues remain challenging to the growth of companies, and much of the entrepreneur-specific business services and the expertise needed to grow the startup ecosystem remain low. There are observable low levels of market-readiness and technology-readiness of innovations, which lessen the attraction of these products to external funders.⁸

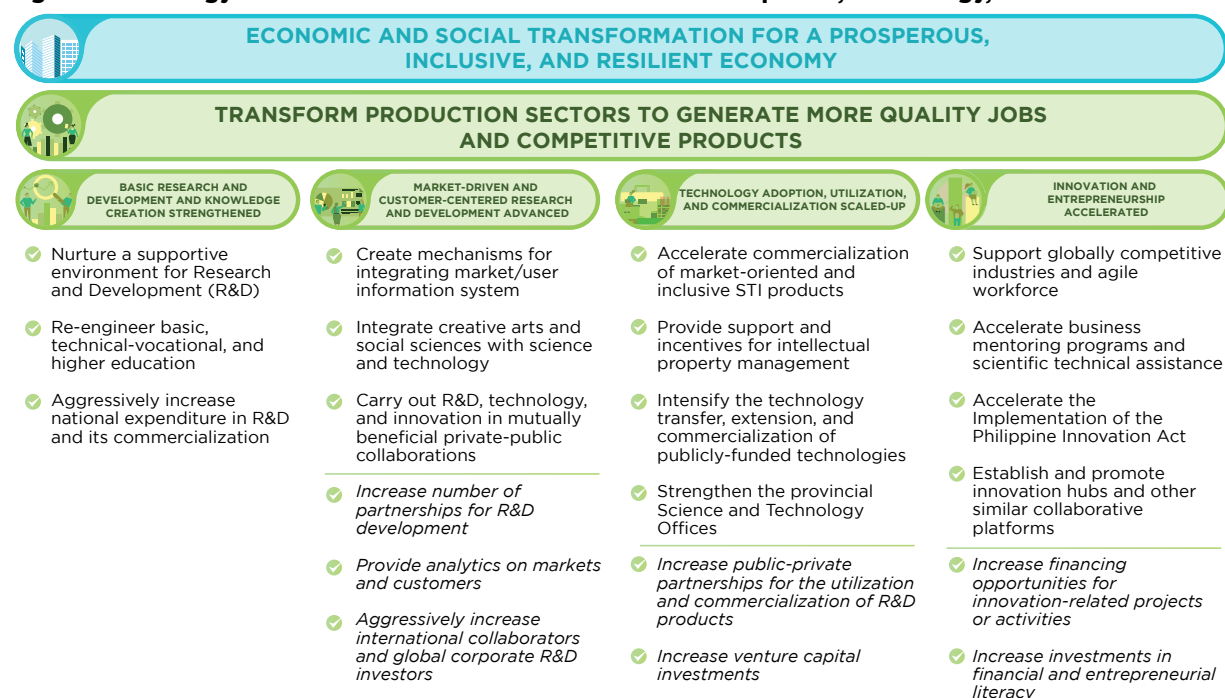
Notwithstanding these challenges, there are positive directions in the development of the country's R&D, technology and innovation infrastructure as evidenced by new laws, policy actions, and various initiatives taken in the last six years.⁹

Strategy Framework

The strategy framework illustrates the areas of focus in the R&D, technology, and innovation generation continuum. There are four desired outcomes: (a) basic R&D and knowledge creation strengthened;

(b) market-driven and customer-centered R&D advanced; (c) technology adoption, utilization, and commercialization scaled up; and (d) innovation and entrepreneurship accelerated.

Figure 8.2 Strategy Framework to Advance Research and Development, Technology, and Innovation



Strategies

Outcome 1: Basic R&D and knowledge creation strengthened

R&D covers basic research, applied research, and experimental development. Basic research increases the ‘knowledge base’ available to companies and other participants in the economy to source innovation information.¹⁰ An important starting point is to increase the quantity and develop the quality of the country’s human capital that can produce basic research contributing to knowledge generation, accelerate investments in R&D, and initiate meaningful reforms in the formation of human capital in basic, technical-vocational, and higher education.

Nurture a supportive environment for R&D

The government, in partnership with the private sector, will build laboratories, science and technology research facilities, Knowledge, Innovation, Science and Technology (KIST) Parks, university science and technology parks, technology business incubators, and other infrastructure that can reduce the complexity and upfront costs and risks for private R&D. The government will strengthen the *Balik-Scientist* Program and its support to the diaspora of Filipino scientific communities in other parts of the world. It will provide a program of rewards and recognition for state university and college faculties who devote at least eight hours a week to research work and writing. It will enhance its policy to strongly support institutional and individual faculty initiatives to establish linkages with

industry, foreign universities, and research institutes. It will expand the sources of public funding for full-time researchers who are working on areas or domains under the national harmonized research agenda. The government will address bottlenecks in administrative processes, including procurement and similar concerns that may hamper the conduct of publicly funded R&D.

Re-engineer basic, technical-vocational, and higher education

The Department of Education, Technical Education and Skills Development Authority, and Commission on Higher Education shall pursue programs that: (a) trigger Filipinos’ drive for curiosity and discovery; (b) cultivate their critical thinking, growth mindset, communication, and decision-making skills; (c) enable them to adapt to the uncertainties of the environment; and (d) develop more trusting and more collaborative relationships with colleagues. These government agencies will promote an Industry 4.0 skills framework that maps out jobs, career pathways, occupational skills, micro-credentialing, and reskilling options.

Aggressively increase national expenditure in R&D and its commercialization

Increase investments in R&D that can benefit the entire country, which can also invigorate private R&D expenditures in related fields.

These investments shall promote various research and innovation areas identified under the *Pagtanaw 2050*.¹¹ Moreover, it will pursue R&D that seeks to improve the production of higher value-added goods

and services, reduce the country's reliance on foreign technology, and strengthen the capabilities of domestic firms to create and capture economic value.

Box 8.1 *Pagtanaw 2050*: The Philippine Science, Technology, Innovation Foresight

Pagtanaw 2050, which literally translates to “looking ahead,” is the first inter-disciplinary and trans-disciplinary project on Philippine-focused science-technology-innovation (STI) foresight and strategic plan. Its main goal is to chart a strategic path by anticipating the factors that will influence the development of the Philippines' scientific capital in the years leading up to 2050. It serves as a planning device toward achieving concrete goals and designing strategic plans that transcends political periods, while aiming for inclusive growth, sustainability, and competitiveness in STI. *Pagtanaw 2050* suggests significant drivers of change and provides insights and reflections on plausible STI development paths that will impact the aspirations of the Filipino people and development of the nation toward 2050.

At the core of STI Foresight are 12 key operational areas, namely: (a) Blue Economy; (b) Governance; (c) Business and Trade; (d) Digital Transformation and Information and Communications Technology; (e) Science Education and Talent Retention; (f) Food Security and Nutrition; (g) Health Systems; (h) Energy; (i) Water; (j) Environment and Climate Change; (k) Shelter, Transportation, and Other Infrastructure; and (l) Space Exploration.

This STI Foresight culminates with the STI Roadmap that reiterates cluster goals for the preferred future, science, and technology enablers, drivers, and opportunities. The goal of the STI Roadmap is for the Philippines to eventually become a prosperous, archipelagic, maritime nation characterized by a society that is inclusive, productive, sustainable, educated, and healthy.

The progress of each cluster is determined by the interplay of science and technology enablers, drivers, and opportunities. Achievement of a competitive economy across clusters would bring the Philippines to its preferred stature as a prosperous, archipelagic maritime nation that supports a technology-explicit development agenda that is inclusive and sustainable, and nurtures a citizenry that is educated, healthy, and productive.

Source: National Economic and Development Authority

Outcome 2: Market-driven and customer-centered research and development advanced

Insights about markets and consumers, and a deepened understanding of potential users will be used to drive R&D and the generation of technology and innovations. To ensure sustainable technology commercialization,

government-funded research in universities and research institutes will shift toward a market- and demand-oriented approach in responding to market failures or demand issues in the private sector.

Create mechanisms for integrating a market/user information system

Working through the various collaborative hubs such as the KIST Parks, technology business incubation, regional inclusive innovation centers (RIIC), and research and extension offices of state universities and colleges (SUC), the government will establish a common and accessible portal that provides market intelligence. Social science researchers and student researchers in higher education institutions will be taught and provided support to conduct primary data collection that can capture relevant market data, such as customer needs and preferences, competitors, customer demographics, market trends, market price, and potential marketing processes. These can be used to guide or inform the R&D process and aid in the generation of technology and innovation.

Integrate creative arts and social sciences with science and technology

Capacitate human resources on the R&D, technology, and innovation continuum and entrepreneurship to encourage the interaction of scientific, social, and creative talents, and intellectual capital in multidisciplinary collaborations. In particular, the government will bolster the participation of human resources from the creative arts and social sciences as they introduce perspectives on the experience and social usage of technology and innovation, and contribute to the dynamic process of creating value and competitive advantage of R&D, technology, and innovation products.

Carry out R&D, technology, and innovation in mutually beneficial private-public collaborations

Support and recognize collaborative work of public researchers and private firms on R&D, technology, and innovation. Compensate the time spent for industry research and consultation by faculties of state universities and colleges. Facilitate the licensing of IP generated by public universities and research institutes, including a royalty sharing scheme and/or selling, if necessary, with the industry. It will establish partnerships with countries on pioneering R&D in specific sectors that will provide open access to global best practices, which can then be customized to suit the Philippine context.

Provide analytics on markets and customers

The private sector will be encouraged to share its observations, knowledge, and insights on people's motivations and preferences, and product trends to help improve R&D products in terms of function, aesthetic impressions, and market value.

Increase number of partnerships for R&D

The private sector will contribute to government R&D by: (a) guiding researchers and scientists on consumer trends and market system requirements; (b) addressing market challenges and opportunities; (c) leveraging private investments in STI activities; (d) seeking solutions to broad national challenges such as climate change, public health, green growth, and energy efficiency; (e) investing or locating knowledge, science and technology parks,

incubators, and entrepreneurship cells; and (f) improving academia-industry linkages.

Aggressively increase international collaborators and global corporate R&D investors

Seek international R&D collaborations to develop innovative products and services.

It will help promote the attractiveness of the Philippines as a top location for R&D and other innovative activities. It will focus on improving the domestic adoption, implementation, and reengineering of new technologies from domestic and international sources.

Outcome 3: Technology extension, adoption, utilization, and commercialization scaled-up

The development from a research insight to a widely distributed product requires a good balance of: public funds and private investment; public sector research, extension programs, and private R&D; and scientific, technology management, product development, diffusion, and commercialization skills.

Accelerate commercialization of market-oriented and inclusive STI products

Provide funding for the diffusion (i.e., extension and promotion) and commercialization of products of both publicly and privately funded STI products. It will streamline the processes for technology transfer transactions. The National Innovation Council (NIC) will continue the administration of the Innovation Fund under the Philippine Innovation Act to support the commercialization of publicly or privately funded and domestically developed technologies and innovations.

Provide support and incentives for IP management

Accelerate programs to increase awareness among policymakers, private sector, university researchers, and the general public of the value and contribution of innovation and IP to economic and social development. It will strengthen a network of IP units delivering timely, high quality, and accessible IP management services that benefit technology and creative startups. It will improve the capacity of the private sector to create, protect, utilize, commercialize, and enforce their IP rights. The Intellectual Property Office of the Philippines (IPOPHL) will provide businesses with patent mapping and analytics tools that identify trends and gaps in the technological landscape, which can be used as a basis for strategic direction and business decisions for pursuing R&D and investments in technology development.

Intensify the technology transfer, extension, and commercialization of publicly funded technologies

Provide public research institutions and SUCs with platforms, including avenues, to pitch their R&D products and technology

developed, to successfully commercialize their technologies. Programs will also be implemented which involve private sector participation through the promotion, utilization, and commercialization of investments in these products.

The government will seek the most effective modes of technology transfer of commercially ready and publicly funded R&D outputs from qualified private entrepreneurs and enterprises. This will further capacitate the research and extension offices of SUCs and the technology transfer and business development offices. A framework that will standardize the procedures for research and development institutions and SUCs for valuing their IP assets shall be adopted.

Strengthen the provincial Science and Technology (S&T) Offices

Fast track the implementation of Republic Act 11914 or Provincial Science and Technology Offices (PSTO) Act. The PSTOs are mandated to identify the STI needs in the provinces, implement DOST programs that will be beneficial in rural areas, and develop the institutional linkages among provincial offices, academe, and local government

units. The PSTOs will lead the promotion and transfer of technologies and services to enhance the technology-livelihood enterprises in the countryside.

Increase public-private partnerships for the utilization and commercialization of R&D products

Engage with the private sector in adopting emerging technologies that can compete in rapidly changing world markets, especially in the sphere of digital transformation. Working with SUCs and public research institutes, the private sector will help facilitate the transition from the laboratory to the marketplace, and from demonstration of technical “proof of concept” to commercial introduction of a new technology product or service in the marketplace.

Increase venture capital investments

The private sector will provide support for startup technology innovators through “angel” investors (i.e., wealthy individuals with experience in starting up new companies), and venture capital firms specialized in early-stage or “seed” investments.

Outcome 4: Innovation and entrepreneurship accelerated

Innovations flourish as a result of well-developed entrepreneurial skills. While innovation involves the production of a new product, service, or system, entrepreneurship consists of creating value out of these new ideas and turning them into business opportunities. The skills in innovation ideation and production must be complemented with the appropriate business mindset and skills involving

risk-taking and decision making, market research and trends, collaboration, leadership, planning, and management, among others. Fostering a strong culture of innovation and entrepreneurship are vital to the pursuit of creating high-quality jobs and competitive products and services.

Support globally competitive industries and an agile workforce

Improve the competitiveness of creative and science and technology industries through the establishment of industry hubs. It will foster the creativity and digital dexterity of the country's human capital. It will support industry ventures on digital transformation, such as the use of Artificial Intelligence, Robotic Process Automation, and Internet of Things, among others. It will support academe-industry collaborations on skills frameworks and other trainings, particularly in science and technology, to ensure that the future workforce has the necessary science, technology, engineering, and mathematics skills supporting the growth of the Philippine science and technology industry into the future.

Accelerate business mentoring and scientific technical assistance

Strengthen current mentorship and coaching programs for science and technology startups by tapping large corporations to teach the different aspects of business operations. It will expand access to the One-stop Laboratory Services for Global Competitiveness, Shared Service Facilities, Advanced Device and Testing Laboratory, Electronics Product Development Center, Regional Standards and Testing Laboratories, and other specialized laboratories for product development and improvement.

Provide a venue where researchers and technology developers can meet and pitch their products to possible investors or industries. In the same way, the venue will also provide a platform for industries and investors to share market demands and consumer preferences where R&D, technology development, and innovation can be directed.

Accelerate the implementation of the Philippine Innovation Act

As mandated by the law, the NIC will formulate and implement the National Innovation and Agenda Strategy Document (NIASD), which will set the country's innovation goals and provide the strategies and action plans for improving the country's innovation governance. The NIC will also continue to administer the National Innovation Fund which aims to strengthen entrepreneurship and enterprises engaged in developing innovative solutions. To generate public support on the country's innovation priorities, the NIC will also develop a National Innovation Communication Plan. The NIC together with the Regional Research, Development, and Innovation Committee of the Regional Development Councils will monitor innovation policies and programs (i.e., NIASD), as guided by the National Innovation Monitoring and Evaluation Matrix. Further, the NIC will establish the Diaspora for Innovation Development Program to engage high level experts, especially overseas Filipinos.

Establish and promote innovation hubs and other similar collaborative platforms

Establish industry-academe centers that seek fundamental, and multi- and interdisciplinary solutions with high societal relevance. These industry-academe centers and RIICs will ignite digital transformation as an essential factor in innovation and entrepreneurship that can change production and distribution processes, reduce the cost of entering markets, facilitate cross-border trade, and provide flexible access to considerable computing power without investing in physical infrastructure.

Increase financing opportunities for innovation-related projects or activities

Motivated by the dynamism of the innovation ecosystem, the private sector will operationalize the Mandatory Credit Allocation for Innovation Development. The Mandatory Credit Allocation for Innovation Development under the Philippine Innovation Act provides ease of access for innovation-related projects, especially startups and micro, small, and medium enterprises (MSME). Subject to applicable regulations of the government, the business

and MSME sectors are encouraged to avail of loans under this program to invest in innovative and market-oriented technologies.

Increase investments in financial and entrepreneurial literacy

The private sector will increase investments and strengthen programs to enable science and technology startups to make sound financial decisions and expand their business development skills. It will share financial and entrepreneurial expertise by providing trainings on finance and entrepreneurship.

Legislative Agenda

Table 8.1 presents the priority bills for the 19th Congress to advance R&D, technology, and innovation.

Table 8.1 Legislative Agenda to Advance R&D, Technology, and Innovation

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Basic Research and Development and Knowledge Creation Strengthened		
Establishing the Virology and Vaccine Institute of the Philippines (VIP)	The creation of the VIP will make the Philippines become globally competitive in the field of Science and Technology, particularly in virology, when it comes to detecting, identifying, and responding to viruses that affect our people and our resources.	Department of Science and Technology (DOST), Department of Health
Providing for a Comprehensive Atomic Regulatory Framework, Creating for the Purpose the Philippine Atomic Regulatory Commission, and Appropriating Funds Therefor	The bill aims to provide a legal framework that adequately protects public health and safety, and the environment against the harmful effects of ionizing radiation; and ensures the safety and security of radiation sources. It also aims to establish the Philippine Atomic Regulatory Commission which will exercise regulatory control over the peaceful uses of ionizing radiation, including the production, possession, use, import, export, transport, transfer, handling, and management of radioactive materials	DOST
Strengthening the National Measurement Infrastructure System Amending Republic Act 9236 also known as the National Metrology Act of 2003 and for Other Purposes	The bill supports the harmonization of national metrological standards with international standards, mutual recognition arrangements and statistical controls as envisioned in the ASEAN economic integration, the World Trade Organization, and international agreements and covenants, resulting in globally competitive and quality products and services.	DOST
Market-Driven and Customer-Centered Research and Development Advanced		
Promoting the Development of the Bamboo Industry by Strengthening the Philippine Bamboo Industry Development Council, Creating the Bamboo Industry Research and Development Center, Providing Incentives for Bamboo Plantation Development, and Appropriating Funds Therefor	The bill seeks to promote the development of the Philippine bamboo industry through policies and programs that promote the planting of bamboo and accelerate the development of bamboo-based designs and products. It proposes the creation of a Bamboo Industry Research and Development Center, which is tasked to ensure the effective implementation of the goals and objectives of the measure through research and development; and trade and propagation promotion, education, and capacity-building initiatives for farmers, processors, designers, and other stakeholders in the bamboo industry, among others.	Department of Environment and Natural Resources, Department of Trade and Industry, DOST
Technology Adoption, Utilization, and Commercialization Scaled-up		
Providing for the Development of a National Defense Industry through the Strengthening and Revitalizing of the Self-Reliant Defense Posture (SRDP) Program, Incentivizing In-country Enterprises, Rationalizing Defense Acquisition, and Creating the Office of the Undersecretary for Defense Technology Research and Industry Development under the Department of National Defense, and Providing Funds therefor	The bill aims to revitalize the SRDP Program, incentivize in-country enterprises, rationalize defense acquisition, and create the Office of the Undersecretary for Defense Technology Research and Industry Development under the Department of National Defense.	Department of National Defense

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Amending Section 177 and Section 216 of RA No. 8293, Otherwise Known as the Intellectual Property (IP) Code of the Philippines, as Amended by RA No. 10372, and for Other Purposes	The bill seeks to amend the following sections of the IP Code: (a) Section 177 to consider rampant digital reproduction of copyrightable works; and (b) Section 216 of the IP Code, as amended, to address increasing concerns on secondary liability and online copyright infringement issues, such as those related to Peer-to-Peer networks and Internet Service Providers. This bill considers the right of copyright owners to prevent others from copying, uploading, scanning, digitizing, or distributing their creative work.	Intellectual Property Office of the Philippines
Innovation and Entrepreneurship Accelerated		
Establishing the Science for Change Program and Appropriating Funds Therefor	The bill seeks to institutionalize the Science for Change (S4C) Program of the DOST to address the inadequacies in the field of research and development and to enable the nation to be globally competitive, and equipped to provide knowledge-driven solutions and evidence-based responses in resolving the nation's challenges.	DOST

Results Matrix

Table 8.2 presents the indicators and targets during the Plan period to advance R&D, technology, and innovation.

Table 8.2 Results Matrix: Advance R&D, Technology, and Innovation

INDICATOR	BASELINE (YEAR)	TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Basic Research and Development and Knowledge Creation Strengthened									
Gross expenditure on research and development (R&D) as proportion of gross domestic product	0.32 [2018]	0.35	0.40	0.5	0.6	0.8	1.0	Department of Science and Technology (DOST) survey	DOST
Market-driven and Customer-centered Research and Development Advanced									
Academe-Industry-Government R&D linkages increased and strengthened	64th	62nd	59th	57th	55th	52nd	50th	Global Innovation Index (GII) Annual Report	Commission on Higher Education, DOST, Department of Trade and Industry (DTI), Department of National Defense, Department of Agriculture, state universities and colleges (SUC)
Technology Adoption, Utilization, and Commercialization Scaled-up									
Percentage increase in public R&D products adopted by users and/or commercialized	TBD ¹	Increasing						Final reports from R&D grantees, Startup grantees, Products demonstrated in National Science and Technology Week, Philippine Startup Week, SUC Fairs, regional inclusive innovation centers, DA Fairs	DOST
Innovation and Entrepreneurship Accelerated									
Number of successful startups	TBD ²	Increasing						Philippine Startup Week participation, other government-recognized startup events/fairs, ISA registry of startups, NDC startup grantees	DTI, DOST, Department of Information and Communications Technology, National Economic and Development Authority (NEDA)
GII ranking	59th [2022]	57th	54th	52nd	49th	46th	43rd	GII Annual Report	NEDA

¹ No available immediate data

² Registration on the Startup Website is still in beta testing phase. Official numbers will be provided based on the number of startups registered.

- ¹ The GII serves as the global benchmark that measures innovation using seven pillars, namely (a) Institutions; (b) Human Capital and Research; (c) Infrastructure; (d) Market Sophistication; (e) Business Sophistication; (f) Knowledge and Technology Outputs; and (g) Creative Outputs. It ranks the innovation performance of around 132 economies in the world by highlighting innovation strengths and weaknesses.
- ² Dutta, S., B. Lanvin, L. Rivera León, and S. Wunsch-Vincent (Eds.) (2022). *Global Innovation Index 2022 What is the future of innovation-driven growth?* Geneva, Switzerland: World Intellectual Property Organization.
- ³ RTI International-Science, Technology, Research, and Innovation for Development (STRIDE) Project. (2019). *Philippines Innovation Ecosystem Assessment*. RTI International for the United States Agency for International Development. North Carolina: RTI International.
- ⁴ DOST Survey on R&D Expenditures and Human Resources in Government, Higher Education, and Private Non-Profit Sectors, 2009, 2011, 2013, 2015, and 2018
- ⁵ RTI International-Science, Technology, Research, and Innovation for Development (STRIDE) Project. (2014). *Philippines Innovation Ecosystem Assessment*. RTI International for the United States Agency for International Development. North Carolina: RTI International.
- ⁶ Inputs and discussion during the Virtual Regional Consultations for the PDP 2023-2028, October 19, 2022.
- ⁷ Dutta, S., B. Lanvin, L. Rivera León, and S. Wunsch-Vincent (Eds.) (2022). *Global Innovation Index 2022 What is the future of innovation-driven growth?* Geneva, Switzerland: World Intellectual Property Organization.
- ⁸ RTI International-Science, Technology, Research and Innovation for Development (STRIDE) Project. (2014, 2019). *Philippines Innovation Ecosystem Assessment*. RTI International for the United States Agency for International Development. North Carolina: RTI International.
- ⁹ “Philippine Innovation Act” declares the policy of the state to foster innovation as a vital component of national development and sustainable growth; Act to Enhance the Digital Workforce Competitiveness aims to ensure that citizens are provided with the necessary digital skills and competencies that are at par with global standards and shall encourage digital innovations and entrepreneurship. The Act aims to provide the necessary infrastructure, and undertake upskilling re-skilling, and training of workforce on digital technology and innovations for employability and competitiveness in the Fourth Industrial Revolution; Innovative Startup Act provides benefits and incentives for startups and startup enablers; Public Telecommunications Policy Act aims to promote and govern the development of Philippine telecommunications and the delivery of public telecommunications services; Science for Change Program (S4CP) Act (Senate Bill No. 1548) seeks for increased budget of PHP 21 billion for R&D (from 5.8B) for 2018, to double yearly for 5 years, capped at PHP 672 billion by 2022.
- ¹⁰ Kim, Jungsuk and Castillejos-Petalcorin, Cynthia. (2020). *The Role of Government Research & Development in Fostering Innovation in Asia*. Asian Development Outlook 2020 Background Papers. Manila: Asian Development Bank.
- ¹¹ National Academy of Science and Technology, Philippines. (2021). *PAGTANAW 2050: The Philippine Foresight on Science, Technology, and Innovation*. Manila: National Library of the Philippines.

09

**Promote Trade
and Investments**



Promote Trade and Investments

Over the medium term, the trade and investment sectors will be strong and positive contributors to overall national growth. This will require taking more informed risks and making harder choices to propel the country's global position upward. To meet these ambitions, both the public and private sectors, together with major social partners, will **act as one**, and powerfully recharge trade and investments as motors of job creation, skills development, and poverty reduction.

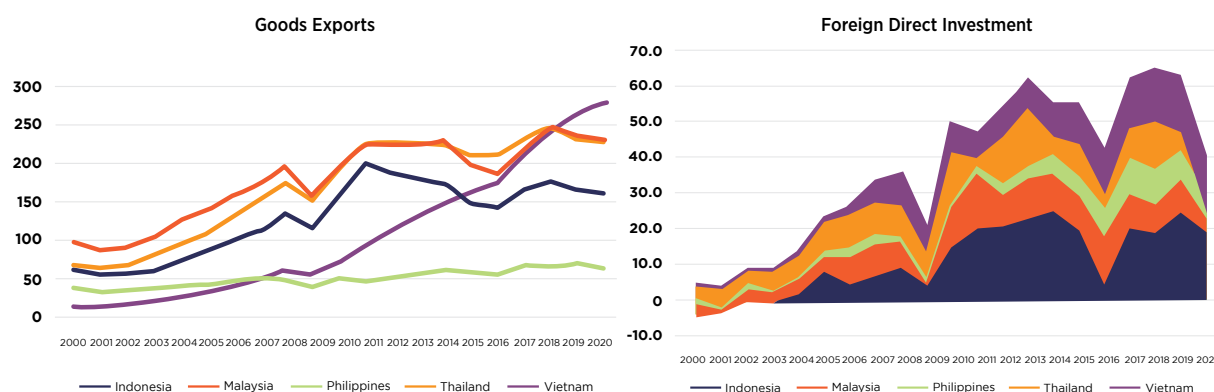
This chapter presents the challenges facing trade and investments and the twin outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) global position of Philippine export sectors restored, sustained, and strengthened; and (b) total investments increased and targeted to boost trade, skills upgrading, and sustainability.

Assessment and Challenges

Philippine exports have lost tremendous ground in the global market (See Figure 9.1), averaging only four percent growth for the last two decades while our regional neighbors have been experiencing exponential growth in their exports. The inability of the country to exploit the waves of surging foreign direct investment (FDI) in the region has resulted in widening gaps between the country and its

immediate neighbors, stunted the dynamic shifts away from low value-added tasks in the global value chains (GVC), and limited the diversification of the product space toward a more complex set of exports. Compared to the country's position in the late 1990s, the overall level of sophistication of Philippine exports is much lower in 2021.¹

Figure 9.1 Philippine Export and Foreign Direct Investment Performance Relative to the Association of Southeast Asian Nations, 2000–2020 (USD billion)



Source: World Bank. World Integrated Trade Solution. <https://wits.worldbank.org/>

Notwithstanding the sharp drop of trade and investment due to the coronavirus disease (COVID-19) pandemic, the Philippines has managed to increase its exports of goods in 2021 by 5 percent relative to 2019. However, this still puts the country behind five other Association of Southeast Asian Nations (ASEAN) countries. Philippine exports amounted to only 31 percent that of its closest regional competitor, Indonesia. Exports of agriculture have been stagnant at around USD5 to 6 billion since 2013, which is on average 32 percent that of Vietnam during the same period. Services exports fare better, growing at an average of 9 percent from 2016 to 2019, and ranking fourth in ASEAN, behind Singapore, Thailand, and Malaysia.² However, compared to pre-pandemic levels in 2019, services exports dropped 18 percent in 2021. As for FDI, 2021 was a record year that saw investments reach USD12.4 billion, which is 21 percent higher than the previous peak in 2017. Yet, despite what seems to be robust growth, the country still lags behind, ranking 7th in FDI flows into ASEAN in 2021.

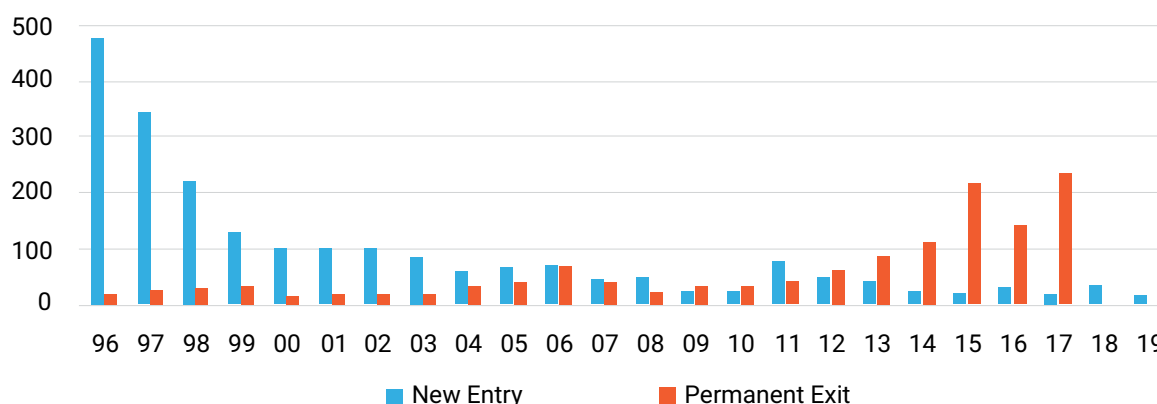
The number of jobs that are created by trade and FDI is difficult to ascertain due to insufficient or unmatched data, e.g., between the Philippine Standard Commodity Classification and the Philippine Standard Industrial Classification data. The latest 2018 enterprise census data indicated that employment (and the number of enterprises) in sectors linked to exports have fallen or at best, remained stagnant compared to 2012. The list of establishments reported only a meager 0.2 percent increase in small enterprises and 0.8 percent net annual increase in medium-sized enterprises from 2012 to 2021. This is due to the falling rates of new entry of firms in the export markets,³ and the increasing trend toward automation

and robotization, which adversely affect the capacity of industry to generate jobs and threaten services jobs that are routine and have weak creative or interpersonal demand.⁴ While the Philippines could potentially be well placed to exploit the current boom in trade in intermediate services, the overall low level of skills ensures that growth will mostly likely be concentrated in few highly urbanized areas, consequently leading to limited national impact on the rates of productive employment.

The main market access barriers today are the high standards that exporters must meet in terms of consumer health and safety, environmental protection, and overall product quality. The country's relatively cheap wages are no longer sufficient to carve a niche in the global market. Enhancing the country's ability to meet such standards is crucial to supporting the efforts of local firms to venture into new export markets, and being considered as preferred suppliers to lead firms in GVCs. Without know-how and access to standards and certification testing facilities nationwide, local exporters will be unable to exploit premium prices in organic goods, produced according to environmentally and socially responsible practices, for instance.

A particular concern is the weak or falling export growth rates of the most firm-populous sectors. The survival of these sectors, such as garments, handicrafts, and wooden products, is imperative since they have strong domestic sectoral and labor market linkages. The Philippines needs to recover competitiveness in sectors where the country has registered clear comparative advantages in the recent past, as well as maintain the country's remaining lead in the global market (See Figure 9.2).

Figure 9.2 Philippine Product Dynamics: New Entry and Permanent Exit of Export Products, 1996–2019



Note: Estimates based on Harmonized System at the 6-digit level.

Source: World Bank. World Integrated Trade Solution. <https://wits.worldbank.org/>

Public export financing schemes are fragmented, insufficient, or inadequately communicated. Despite available financing facilities from the Development Bank of the Philippines, Land Bank of the Philippines, and the Small Business Corporation, a number of Philippine traders still resort to private financing, which carry higher costs and add to their cost disadvantage relative to their foreign competitors.⁵ Exporters are relatively low-risk and thus are prime clients of private banks since they typically supply on invoice to trusted buyers (i.e., with repeat orders). The lack of buffers to bridge finance their transactions often leads to undue burden that impact their production capacities.

Proactive policies that render timely interventions and preventive measures for distressed firms are lacking. In a highly competitive global market, even the market shares of the country's strongest home-grown export pillars are contestable. Signs of firm distress must be recognized, else the only remaining option is firm closure, which not only leads to job loss but also to the wastage

of scarce local entrepreneurial capital. Large GVC subsidiaries, which account for more than 60 percent of the country's exports, are often well sheltered from market shocks and competitive pressures by their lead firms. Many local firms, however, will not survive in the presence of extensive domestic market failures such as lack of critical infrastructure, access to financing, real-time market information, etc.

The country's weakening ability to develop and retain a skilled workforce. The 2022 Global Talent Competitiveness Index of INSEAD saw the Philippines ranking 80th out of 133 countries (down 10 spots from 2021). This may undermine the country's first-mover advantage in information technology–business process outsourcing commercial services, and affect its ability to secure high value-added niches in intermediate services. This will also affect the country's ability to achieve inclusive growth. The institutionalization of major FDI reforms in 2022 is expected to significantly improve the investment

environment, but fundamental problems remain pertaining to red tape especially at the level of local government units (LGU); insufficient coordination of investment promotion efforts; scarcity of local suppliers that are able to deliver the necessary quality and scale; and overall high costs of doing business due to inadequate and

inefficient provision of key infrastructure (e.g., electricity, transport networks, telecommunications). These issues need to be addressed to raise the attractiveness of the country as an FDI destination relative to neighboring countries with similar endowments and level of development.

Strategy Framework

Amid a crowded policy agenda and limited fiscal space, priorities must be made, especially at the national level, and innovation in policy approaches are needed, especially at the local levels (See Figure 9.3). On one hand, renewed focus will be given to the survival, growth, and expansion of local

firms in the export and domestic markets to drive productive employment, and increase incomes. On the other hand, FDI will be harnessed as drivers of export growth, sources of vital technology, and critical enablers of the country's long-term climate action.

Figure 9.3 Strategy Framework to Promote Trade and Investments



Strategies

Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened

Resolve key constraints to export growth and competitiveness

The country's high-cost business environment due to high electricity costs and logistics costs relative to other ASEAN countries must not be further saddled by unnecessary regulatory costs. The government will therefore ensure tight collaboration with LGUs (this will be a special focus of the Anti-Red Tape Authority), stricter timeframe for resolving exporters' issues to reduce exporters' costs, full implementation of the TradeNet platform, and institutionalization of a dedicated unit to oversee the implementation of the National Single Window. To facilitate the flow of trade in goods, the government will review, identify, and recommend the removal of regulatory measures that have become irrelevant, trade-restrictive, and costly or burdensome in doing business. The government will also capacitate exporters to increase their online presence and make use of digital platforms⁶ that will increase market presence of Philippine goods and services. The government will likewise review the efficacy of existing financing facilities to further lower exporters' costs and raise their competitiveness.

The provision of real-time market information is a critical assistance for the country's exporters. The Tradeline Philippines will be revamped and given more resources to enable the platform to identify emerging products and market opportunities; better capture information on local suppliers and their capabilities; and create a dedicated

space for market information sharing to and from trade and agricultural attachés, and diplomatic posts.

Proactively monitor and implement preventive measures and interventions for distressed firms

The government will design and implement an effective Early Warning System;⁷ Rapid Assistance mechanisms; and farsighted preventive measures to support export pillar sectors as well as micro, small, and medium enterprises (MSME), which are in critical stages of transition (e.g., local to foreign markets; scale shifts). This requires immediate solutions to the information bottleneck caused by existing data confidentiality laws and fortified data silos within the government. In the meantime, the Philippine Statistics Authority will ensure the updating of its merged Trade Transaction and Firm Survey database, which will be the basis for distinguishing more granular firm typologies and monitoring the health of local firms, particularly exporting firms. Armed by such firm typologies, the Department of Trade and Industry (DTI) will be able to determine the reasons behind the weak survival and falling net entry of firms in the export markets, and to identify unnecessary cost pressures (e.g., informal fees in ports and LGUs). This will be the basis for developing customized programs, especially for sectors and firms in distress, as well as support measures to assist exporters in maximizing opportunities in key markets.

Implement targeted, more granular strategies to increase exports on three fronts: global value chain export clusters (industrial, manufacturing, and transportation, technology, media, and telecommunications, and health and life sciences); food and agri-marine; and labor-intensive manufacturing

Multiple priorities signal no priorities; thus, strategies will be further sharpened to make them credible for local and foreign investors. Given the tight fiscal space for the provision of incentives and subsidies, the government will draw the most specific information possible to identify concrete entry points for local firms in GVCs (industrial, manufacturing, and transportation; technology, media, and telecommunications; and health and life sciences). This entails the scanning of opportunities benchmarked on an in-depth (and honest) analysis of the country's current skills set and not only on the GVC's technological profile. The Philippine Export Development Plan will outline the specific strategies to promote development of identified sectors.

Due to the utmost goal of generating jobs, especially for unskilled workers, renewed focus and targeted support programs will be implemented for agri-marine-based and labor-intensive manufacturing, such as processed food and garments. Problem-oriented coordination mechanisms, especially in the rural areas to address context-specific bottlenecks, will be actively utilized as an approach to resolve these constraints as well as address general problems of inadequate access to financing and insufficient provision of agricultural extension to transform antiquated production practices.

Significantly diversify exports by fortifying the sectoral backward and forward linkages

The shrinking export product space will be transformed by identifying and supporting local firms that have trigger roles in linking upstream and downstream sectors in the economy. The agri-processing sector, for instance, is populated by these types of firms. Middle-sized enterprises, for instance, often fall through the policy cracks,⁸ explaining their trivial net 0.8 percent annual increase in number.

The servicification of manufacturing and agriculture has now been known to increase the competitiveness of exports.⁹ This will entail the expansion of government agencies assistance and work toward implementing these in the regions, such as DTI's Shared Services Facilities to include common business services (e.g., marketing, digitization, administrative and finance, promotions, logistics, distribution, assistance in consolidation), especially for MSMEs and cooperatives with potential export transitions. Value chain interventions will go beyond mere provision of physical inputs but focus on organizational development, and brokering multi-sectoral partnerships to capacitate smallholders and make value chains inclusive.

Concrete indicators will be developed to gauge the ability of local suppliers to replace a significant share of inputs imported by GVC subsidiaries. This requires: (a) firm and sector analysis based on the least cost disadvantage relative to benchmark estimates of foreign competitor positions; and (b) close collaboration with the private sector, particularly with professional specialists'

groups (e.g., engineers, research and development practitioners).

Advance purposive, assertive, and forward-looking Free Trade Agreement strategies

A Free Trade Agreement (FTA) Sustainability Impact Assessment and FTA Utilization System will be institutionalized and led by the DTI to define short-, medium- and long-term opportunities in specific sectors and markets as well as provide easy access for timely data on trade in goods and services and utilization of Philippine FTAs. The assessment will aim to scan other potential high-impact FTAs and other related trade agreements, highlighting specific areas where these may act as catalyst for facilitating trade and investments from target-source countries. This assessment will also identify possible stakeholders and industries that will be adversely affected and accordingly formulate safety nets for these sectors. The system, on the other hand, will assist government and relevant private stakeholders in designing programs and activities to promote FTAs and optimize utilization by exporters.

Trade negotiations will be employed as a decisive tool in pushing the frontiers of our markets as defined by current origin rules. FTA negotiations will also be utilized to distinguish between legitimate and trade-restricting non-tariff measures. The double transformation rules of origin requirements of the European Union (EU) hampers the local garments sector's utilization of the highly advantageous EU Generalised Scheme of Preferences+ (EU GSP+). This puts the competitive position of our local manufacturers at risk, especially vis-à-vis countries with an FTA

with the EU (e.g., Vietnam). The government will therefore actively seek derogations for EU GSP+ and similar mechanisms (e.g., cumulation), pursue liberal rules of origin for products of interest, and seek inclusion of export pillars in zero tariffs product liberalization of countries' FTAs.

Conformity to technical regulations and sanitary and phytosanitary standards usually comprise an important hurdle for exports to enter foreign markets. This challenge will be transformed into an opportunity by using FTA partnerships to help the country strengthen its National Quality Infrastructure (NQI) to the benefit of local producers. The government will negotiate sharing of knowledge, technology, and best practices to comply with standards in foreign markets and maximize the market access offered through FTAs.

Position the Philippines as the foremost supplier of tradeable intermediate services

The country has a first-mover advantage in some tradeable services sectors in the region and makes it well-placed in being a hub for sectors with high creative and interpersonal demand. This would entail a credible and coordinated commitment both from the private and public sectors to invest in the rapid development of digital skills in order to build a concentration of digital talents in the country. To secure first-mover gains and take advantage of future lucrative niches in creatives and digital skills, the government, in close partnership with the private sector and academe, will identify where the first-mover advantages in these sectors lie so these areas could be developed and appropriate support mechanisms designed for firms in these sectors.

The country's large pool of young digital talents is a huge asset that needs to be harnessed by collaborative (regional) strategies. The government, by mobilizing its regional growth centers, will create a visible concentration of digital savvy pool of talents in various parts of the country. This will entail tight partnerships among industry players, knowledge institutes, LGUs, and the national government. Studies predict that the prime mover of efficiency-seeking foreign investments will increasingly be the availability of digital hubs instead of mere low-cost production centers.¹⁰ Moreover, since local digital talents are being aggressively poached by other countries, new incentive measures will be designed to try and arrest this trend.

Ensure integrated, whole-of-government commitment to deliver broad access to the National Quality Infrastructure

Exports, as well as products geared toward domestic consumers, must be embedded with more technology, innovation, and skills in order for local firms to win market shares in both global and local markets. The government will definitively integrate and harmonize national standards and certification policies, and agencies in order to open up the path for many local firms (especially SME) toward quality-exigent foreign markets. In this regard, the government will strongly pursue passage of the NQI Act and direct relevant agencies to address institutional fragmentation and pursue adoption of harmonized quality infrastructure.

Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability

Maximize synergy and decisively align national and local government investment promotion strategies

The establishment of the Inter-Agency Investment Promotion Coordination Committee under the Amended Foreign Investments Act (Republic Act No. 11647) will be hastened in order to integrate all the promotion and facilitation efforts to encourage foreign investments and make the new investment environment credibly improved for investors. Strong government partnership with the private sector is critical to ensure that investment promotion and facilitation strategies are fit-for-purpose, given the current market realities and demands. Pioneering enterprises and

promising startups that utilize advanced technologies will be the primary drivers of job creation and innovative entrepreneurial culture in the Philippines.

Launch an aggressive “Make it Happen in the Philippines” campaign and raise awareness of the new business climate ushered in by most recent structural reforms

With the institution of major FDI reforms in 2022, an all-out campaign is needed to bring across the message that a new FDI regime exists, making the country truly open for business. The government will maximize the opportunities opened up by the Corporate Recovery and Tax Incentives

for Enterprises (CREATE) Act, the amended Foreign Investments Act (RA 11647), the Retail Trade Liberalization Act (RA 11595), and the Public Service Act (RA 11659), through local and international user-friendly information dissemination programs, and coordinated communications campaign done in collaboration with the private sector and social partners. However, an equally strong internal campaign is likewise needed, especially among LGUs.

Leverage the Strategic Investment Priority Plan

Promotion of the Strategic Investment Priority Plan (SIPP) through sector-focused and company-specific promotion in target markets will be intensified. The implementation of SIPP, pursuant to the CREATE Act, will incentivize highly attractive investments and will yield more diversified, complex, and sophisticated products and services in the country. This will likewise be monitored by an Early Warning System, especially to help increase the realization rates of approved investments.

Heighten the country's attractiveness to foreign direct investment by developing unique locational assets, especially in the rural areas

The role of domestic investor firms especially in rural areas in drawing foreign partnerships in greenfield investments will be strengthened. To support the thrust toward regional development, there is a need to reinvigorate investment promotion in the regions to bring investments to the countryside. Focus must be given on capacitating LGUs in making their localities investment-ready and investor-friendly,

leveraging on the presence of growth opportunities, minimal market saturation, and absence of congestion and pollution compared to urban areas.

The government will examine unique public-private partnership (PPP) transaction arrangements with the private sector, especially for the agriculture and fisheries (A&F) sector. This will be carried out not only at the national level (for what can be considered “big ticket” A&F PPPs), but also PPPs in the A&F sector that have more localized focus.

The Local Economic Development and Investment Promotion Offices in all LGUs (province, cities, and municipalities) will be institutionalized to facilitate and coordinate local economic development and investment promotion advocacies, policies, programs, projects, and activities.

Position the Philippines as a prime destination of foreign investments against climate change or environmental, social, and governance investments

The world's biggest companies have been building up their investment funds to offset their carbon footprints, in the form of carbon credits, as failure to do so may arrest their production growth. There is also an increasing number of firms that are linking their financial returns with environmental, social, and governance norms as a part of their business operations and long-term sustainability strategies. This poses a huge opportunity for the Philippines that could offer environmental, social, and governance (ESG) investment opportunities, specifically in the areas of reforestation combined with

food security and sustainable livelihood for buffer communities. At present, the Philippines does not have a carbon pricing instrument but studies have been conducted in coordination with the World Bank. The Innovative Payment for Environmental Services (PES) is already being piloted in the country, offering a more accessible alternative to the United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation Warsaw Framework, or UN REDD+ schemes, among others.

To make the Philippines a prime destination of ESG investments in the world, an ESG Investments Task Force will be established. This will be composed of the public sector (e.g., National Economic and Development Authority, Department of Environment and Natural Resources,

DTI–Board of Investments, Department of Finance, Department of Social Welfare and Development, Department of the Interior and Local Government, Department of Energy, Climate Change Commission, and Philippines Space Agency), private sector, academe, and other social partners. The task force will spearhead the work in building transparent and credible Standards and Certification schemes by stimulating dynamic institutional entrepreneurship in this arena. This will be done in close cooperation with the Bangsamoro Autonomous Region government and stakeholders given the availability of large possible reforested land, and the potential link with the aim of sustaining the peace process, which adds significant value to ESG investment instruments.

Legislative Agenda

Table 9.1 presents the priority bills for the 19th Congress to promote trade and investments.

Table 9.1 Legislative Agenda to Promote Trade and Investments

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened		
Urgent ratification of the Regional Comprehensive Economic Partnership (RCEP) Agreement	Joining the RCEP will be beneficial to the Philippines to enhance its market access and investments. As of date, only the Philippines has not yet deposited its Instrument of Ratification to the Association of Southeast Asian Nations Secretariat. In 2020, RCEP accounted for 30 percent of the world's population, 30 percent of gross domestic product, 29 percent of trade, and 33 percent of global inward investments. ^a	Department of Trade and Industry (DTI)
National Quality Infrastructure (NQI) Act	Establishment of an NQI will help boost best practices and competitiveness. Compliance with standards can be a source of advantage (especially in context of e-commerce). This will also facilitate secure market access and utilization of free trade agreements.	DTI, Department of Science and Technology, Development Academy of the Philippines
Export and Industry Development Act	Amendments to the law will provide targeted and strategic policy, program, and project support, including non-fiscal incentives, for the development of local industries toward export competitiveness. Most of the provisions of the Export Development Act have lapsed already.	DTI
Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability		
Executive Order for a whole-of-government, harmonized, and structured Investment Facilitation Mechanism, including resolution of critical issues and concerns for identified priority investments.	Issuance of an EO will provide cross-cutting facilitation services for priority investments.	

^a Based on 2020 data (World Bank, ITC TradeMap, UNCTAD World Investment Report).

Results Matrix

Table 9.2 presents the indicators and targets during the Plan period to promote trade and investments.

Table 9.2 Results Matrix: Promote Trade and Investments

INDICATOR	BASELINE (YEAR)	TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened									
Merchandise exports increased (USD billion)	54.2 (2021) ^a	58.09	61.58	65.27	69.19	73.34	77.74 ^a	Bangko Sentral ng Pilipinas (BSP) Balance of Payments	DTI
Non-electronics exports increased (USD billion) ^c	32.16 (2021) ^b	37	42	48.6	56.1	63.3	70.9 ^f	Philippine Statistics Authority International Trade Merchandise Statistics	DTI
Number of commodities with revealed comparative advantage increased ^d	440 (2021)	480	520	560	600	640	680	World Bank World Integrated Trade Solution database	DTI
Services exports increased (USD billion) ^a	33.6 (2021) ^a	42.85	45.42	48.15	51.03	54.10	57.34 ^a	BSP Balance of Payments	DTI
Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability									
Philippine foreign direct investment (FDI) to gross domestic product (GDP) ratio increased (%)	2.7 (2021)	2–5	2–5	2–5	2–5	2–5	2–5	United Nations Conference on Trade and Development FDI and GDP data	DTI–Board of Investments (BOI)
Share of PH FDI to total Association of Southeast Asian Nations (ASEAN) FDI increased (%)	6 (2021)	5–10	5–10	5–10	5–10	5–10	5–10	ASEAN Stats	DTI-BOI
Rank in Organisation for Economic Co-operation Development (OECD) FDI regulatory restrictiveness index improved	3 rd most restrictive (2020)	Lower	Lower	Lower	Lower	Lower	Lower ^g	OECD FDI Regulatory Restrictiveness Index	DTI-BOI
Green, Social, and Sustainability Bonds issued increased (USD billion)	6.33 (Oct 2022)	6–8	6–8	8–10	8–10	TBD	TBD	Securities and Exchange Commission Sustainable Finance Market Update	Department of Finance

^a Based on BSP Balance of Payments data.

^b Based on PSA data.

^c Refers to total exports excluding electronics exports.

^d Based on Harmonized System at the 6-digit level.

^e Targets based on DBCC projections approved during the 183rd DBCC meeting on December 5, 2022.

^f Based on export projections in the draft Philippine Export Development Plan 2023–2028, subject to revision pending approval of draft PEDP.

^g The OECD FDI Regulatory Restrictiveness Index gauges the country's statutory restrictions with values ranging from 0 (least restrictive) to 1 (most restrictive). Countries are ranked from least restrictive to most restrictive where higher numerical ranking indicates more regulatory restrictions.

- ¹ Balaoing, A. and A. Mendoza. 2021. Diversification, Jobs and the COVID-19 Recovery: Exploring Opportunities for Economic Diversification and Productive Employment in the Philippines. Makati City: United Nations Philippines.
- ² United Nations Conference on Trade and Development; ranking based on 2016–2019 annual average levels.
- ³ From 88% in 1998 to 12% in 2012 (last estimate available).
- ⁴ Frey, C.B. and M. Osborne. 2018. Automation and the Future of Work: Understanding the Numbers. <https://www.research.ox.ac.uk/article/2018-10-15-automation-and-the-future-of-work-understanding-the-numbers>.
- ⁵ All of the country's direct regional competitors offer such facility, for example: Export-Import Bank of Thailand, Export Credit Agency in Malaysia, Indonesia EXIM Bank, Export Credit Agency, and Export Credit - Vietnam Development Bank, which are all state-owned.
- ⁶ Such as the ASEAN-wide Self-Certification Scheme; ASEAN Single Window; ASEAN Solutions for Investments, Services and Trade; Philippine National Trade Repository; and ASEAN Trade Repository.
- ⁷ This includes monitoring of firm-level export growth, firm market shares, and market exits (e.g., product and country destinations); job creation impact of trade and investments; and monitoring of revealed comparative advantage. Information on the geographic location of firms is essential to mobilize provincial and even municipal resources to assist ailing firms.
- ⁸ They are too big to qualify for most government aid (especially during the COVID-19 pandemic), and yet too small to accumulate buffers to weather external shocks and competitive pressures. They also often finance their own participation in trade fairs, as well as expensive standards and certification compliance measures.
- ⁹ Lodefalk, M. 2015. Servicification of Manufacturing Firms Makes Divides in Trade Policy-Making Antiquated. <https://www.diva-portal.org/smash/get/diva2:827797/FULLTEXT01.pdf>.
- ¹⁰ Kearney. 2021. Toward a Global Network of Digital Hubs: The 2021 Kearney Global Services Location Index. <https://www.kearney.com/digital/article/-/insights/the-2021-kearney-global-services-location-index>.

10

**Promote Competition
and Improve Regulatory
Efficiency**

Promote Competition and Improve Regulatory Efficiency

As the country emerges from the coronavirus disease (COVID-19) pandemic, ensuring an open and competitive market economy will be crucial to sustain economic recovery and encourage job creation. Genuine competition and enhanced regulatory efficiency will not only encourage investments and improve infrastructure, but also enable businesses—especially micro, small, and medium enterprises (MSME)—to enter and compete in the market. In turn, market competition and ease of doing business will expand consumer access to affordable, innovative, and high-quality goods and services.

Rapid digital transformation of markets poses new challenges and opportunities for competition enforcement and regulation. One challenge is that rapid digital transformation heightens the tendency and ability of large firms with more access to new digital technologies to consolidate market power. Digitalization facilitates easier coordination among market players (but also, possible collusion) using new and powerful algorithms. This creates new cybersecurity and data privacy risks given the increased use of and access to personal data. Nevertheless, digital technologies enhance competition, thus enabling smaller firms to compete against larger ones, increasing access of citizens to previously out of reach markets. The Philippine Development Plan 2023–2028 emphasizes the full implementation of the Philippine Competition Act through strategies that allow businesses to leverage existing or emerging digital technologies. It will help businesses become more agile, innovative, and competitive by fostering an environment where anticompetitive practices are prevented or penalized, entry and re-entry of players are facilitated, and strategies to promote innovation are supported.

Assessment and Challenges

Developments in competition policy and regulatory efficiency. Since the enactment of Republic Act 10667, otherwise known as the Philippine Competition Act (PCA), in July 2015, significant strides in the enhancement of market competition have been achieved. The Philippine Competition Commission (PCC) created under the PCA has conducted more than 200 merger reviews, and imposed remedies on transactions in various trades and industries. It was also able to prevent several businesses from entering into anticompetitive agreements.

In July 2020, the National Economic and Development Authority (NEDA) and the PCC issued Joint Memorandum Circular (JMC) 01-2020 on the National Competition Policy (NCP). Giving more teeth to the JMC, Administrative Order No. 44, series of 2021 was subsequently issued in October 2021. AO 44, s. 2021 mandates a whole-of-government effort in fostering competition through three key elements: (a) pro-competitive policies and government interventions; (b) competitive neutrality; and (c) enforcement of

competition-related laws and policies. It likewise provides that compliance with the NCP be integrated in the criteria used in the grant of Performance-Based Bonus (PBB) for government personnel and in the conferment of the Seal of Good Local Governance (SGLG) on local government units (LGU).

Moreover, economy-wide and cross-sectoral reforms were instituted to improve the ease of doing business and eliminate barriers to the entry of domestic and foreign investments. The Anti-Red Tape Authority (ARTA), created in 2018 through the Ease of Doing Business and Efficient Government Service Delivery Act (RA 11032 or EODB-EGSD), led efforts to reduce the burden of regulations. Its flagship program, the National Effort for the Harmonization of Efficient Measures of Inter-related Agencies (NEHEMIA), greatly reduced the time, permits, and other requirements needed in the information and communications technology (ICT), construction, food, pharmaceutical, logistics, and energy sectors. ARTA also released several manuals to improve regulatory efficiency of government agencies, such as the Philippine Good Regulatory Principles, the Regulatory Impact Assessment Manual, and the National Policy on Regulatory Management System (NPRMS). As of June 2022, 784 LGUs have already implemented the Electronic Business One-Stop Shop and 563 cases have been filed against fixers and public employees found in violation of EODB-EGSD.

Meanwhile, Congress has also enacted landmark legislations to attract foreign investment and participation in the economy. A law amending the Retail Trade

Liberalization Act (RA 11595) was enacted in December 2021, which lowers the minimum paid-up capital for foreign corporations. Amendments to the Foreign Investments Act (RA 11647) and the Public Service Act (RA 11659) followed in 2022. The Foreign Investments Act liberalizes the practice of certain professions, while the Public Service Act allows full foreign ownership of public services such as telecommunications, railways, expressways, airports, freight forwarding, and shipping.

Several pro-competition developments in key sectors are also noteworthy. The government passed the Mobile Number Portability Act (RA 11202) in 2019 and the common tower and pole policies in 2020 to expand the space for competition in the telecommunications sector. The retail supply segment of the electricity sector was opened to competition. In construction, a 2020 Supreme Court decision struck down the rule imposing a nationality-based restriction on the licensing of foreign contractors. Finally, the Rice Tariffication Act of 2019 (RA 11203) introduced several reforms that are expected to reduce barriers to the importation of rice and curb government intervention in the rice market.

These reforms are expected to boost the country's competitiveness; however, the Philippines still declined in the 2022 Global Competitiveness Index (GCI) rankings from a percentile rank of 59 in 2016 to 55 in 2019. This suggests that more effective regulations are needed to strengthen market competition and improve regulatory efficiency. Based on the World Bank's Entrepreneurship Database, business entry in the Philippines remains limited, with an average of three newly

registered businesses per 10,000 working people between 2016 and 2020. Such rate is among the lowest in the Association of Southeast Asian Nations (ASEAN), indicating that there is much room to improve the rate of new firm entry in the Philippines.

Despite the above reforms, several constraints to competition and regulatory efficiency also continue to undermine consumer welfare and market efficiency. Enforcement of competition law and policy has not yet fully addressed anticompetitive behavior and practices, including potential bid-rigging in public procurement. Direct caps and bans on the entry of new firms into some sectors such as transport and logistics still exist. Vertically integrated incumbents, especially in network sectors such as in telecommunications, electricity, and railways, can also make the entry of new firms difficult, if not infeasible.

Meanwhile, high administrative burdens on startups, such as numerous permits and licenses required from multiple agencies, make it costly to enter the market and can unduly constrain business activities. For example, the excessive requirements needed for business registration and renewal, as well as the unnecessary limitations on the scope of activities under these, can prevent the ease of entry and expansion by small players. Price regulations in many markets, including the setting of suggested retail prices for basic commodities, as well as the imposition of non-tariff measures in agricultural products, restrict the ability of firms to compete based on price and to improve efficiency. Beyond these direct regulations, ambiguous and redundant requirements as well as the overlapping mandates of regulatory agencies

increase uncertainty and cost of regulatory compliance, making investments less attractive.

Impact of pandemic and prospects for recovery and competition. The exit of many MSMEs due to the COVID-19 pandemic was worrisome from a competition standpoint as the reduction in competition from smaller players could enable larger incumbent firms to become even more dominant. While the total number of establishments increased from 2018 to 2021, the growth was driven by micro-enterprises (10%). Small and medium enterprises, which are more likely to provide stronger competitive constraint to large dominant firms, declined by 11 percent and 9 percent, respectively. In seven out of 18 sectors, the number of MSMEs contracted. MSME growth declined the most in Information and Communication (57%); Education (30%); Arts, Entertainment, and Recreation (23%); and in Administrative and Support Service Activities (22%).¹ Thus, helping MSMEs recover has been central to the stimulus packages passed by Congress.

It should be noted, however, that such short-term relief measures extended to businesses can also have the unintended effect of distorting the playing field and restricting competition. For example, the passage of *Bayanihan* to Recover as One Act (RA 11494) in September 2020 relaxed regulations to help businesses operate more efficiently during the pandemic. However, it also curtailed the ability of the PCC to review mergers and acquisitions (M&A) below the PHP50 billion threshold value for two years, and suspended its *motu proprio* powers for a year. During this time, potentially harmful

M&As may have gone unchecked, leading to increased market concentration whose effects on competition will be particularly difficult to reverse. Prolonged and widespread lockdowns also had the unintended consequence of limiting the PCC's ability to conduct extensive investigations and dawn raids, advance advocacy and research activities, and monitor far-flung markets.

The public's increased reliance on digital technologies during the pandemic—to study and work, remain in touch with family and friends, purchase goods and services, among many other activities—highlighted the importance of and turbocharged growth in the ICT sector. Public clamor ushered the approval of some long overdue reforms intended to increase competition and improve regulatory efficiency in the ICT sector, including the streamlining of permits to speed up telecommunications infrastructure rollout, liberalizing satellite access to non-telecommunications, and opening telecommunications to full foreign ownership.

Digital transformation, competition, and regulatory efficiency. Increased use of the internet and digital technologies also allowed new and small players to reach consumers and access new markets. Studies have shown that the diffusion of the internet and the adoption of e-commerce can increase competition in goods and services.^{2,3} Thus, policies that enable broader usage and participation in digital ecosystems can help enhance market competition. Digitalization also provides powerful tools for automation, paperless transactions, and streamlined processes, and therefore helps reduce abuse

of discretion while improving regulatory efficiency.

The pandemic also revealed substantial gaps in the country's digital infrastructure, which has long been undermined by restrictive laws and regulations. The legislative franchise requirement limits the ability of new and small internet service providers (ISP) to build their network and deploy broadband equipment. The absence of open access policies allows incumbents to frustrate their competitors' access to essential facilities. For instance, the 91-year-old Radio Control Law of 1931, which governs spectrum use, is obsolete, having been passed decades before the emergence of digital technologies. These constraints hamper access to and lower the quality and speed of broadband in the country, exacerbating inequalities between urban and rural areas.

Finally, the use of internet and digital technologies also creates new challenges for competition enforcement and regulation. Digital technologies can encourage and enable anticompetitive behavior such as: (a) the exclusion of potential rivals from the use of critical infrastructure; (b) the use of algorithms to facilitate collusion; and (c) the preemptive acquisition of up-and-coming players before they have a chance to grow into more competitive rivals. There are also new consumer welfare issues such as the security and exploitation of personal and private data collected in the name of efficiency and improved buying experience. Moving forward, competition policies and regulations shall address these emerging concerns, balanced against the undeniable value that digitalization creates.

Strategy Framework

The strategy framework (See Figure 10.1) recognizes the complementary and mutually reinforcing relationship that exists between competition and regulatory efficiency on one hand, and digitalization on the other, which ultimately leads to enhanced consumer welfare and market efficiency. The adoption of internet and digital technologies will enhance productivity and promote competition. Enhancing competition in the digital markets will improve quality, lower costs, and provide greater choice of new technologies and tools that MSMEs can use to compete more effectively and thrive in the post-COVID environment.

Firm and consistent enforcement of the PCA and competition-related issuances shall be sustained to discourage and penalize cartel agreements, abuse of dominance by firms, anticompetitive M&As, and other anticompetitive behaviors. Reducing barriers to entry and re-entry by adopting policies that promote open and competitive markets and ensure level playing fields will also be pursued. Finally, enhancing regulatory efficiency will help ensure that laws and regulations are implemented in a manner that contributes rather than hampers ease of doing business in the country.

Figure 10.1 Strategy Framework to Promote Competition and Improve Regulatory Efficiency



Strategies

Outcome 1: Anti-competitive practices diminished

Strengthen and expand investigation, detection, and prosecution of anticompetitive conduct and agreements

Government agencies with competition-related mandates will continue to build human resources and institutional capacity to enforce the PCA and other related issuances. With the interagency arrangements firmly in place to foster cooperation and coordination in the investigation and prosecution of cartels, the PCC and the Department of Justice (DOJ), through its National Bureau of Investigation (NBI) and Office for Competition (OFC), will continue to work together and complement each agency's resources and competencies.

Enforcement actions against anticompetitive conduct and agreements will be ramped up to strengthen fair competition, deter anticompetitive practices, and bolster the reputation and credibility of the PCC and other agencies with competition mandates. To detect bid-rigging activities effectively, the PCC, in coordination with the Government Procurement Policy Board, will continue to strengthen the Bid-Rigging Intelligence Gathering and Detection Enforcement project. This project will facilitate the use of data-driven tools to flag and identify suspicious patterns in public tenders.

In addition, a cooperation mechanism will be forged among agencies involved in the investigation, detection, and prosecution of

anticompetitive conduct and agreements, particularly PCC, DOJ-OFC, NBI, and National Prosecution Service, Department of Trade and Industry (DTI), and other relevant enforcement agencies. These agencies will work together to harmonize and clarify their mandates, tasks, and responsibilities under their respective charters, and ensure accountability. They will also jointly identify and work with Congress to harmonize and address any inconsistencies that may exist among their respective charters and other laws, including but not limited to the PCA, the Consumer Act (RA 7394), the Price Act (RA 7581), and the Electric Power Industry Reform Act (RA 9136 or EPIRA).

With the resumption of the PCC's full power to review M&As in September 2021, the Commission will undertake the efficient review of notified transactions and expedite the *motu proprio* review of completed transactions to ensure legal certainty for businesses that merged but face the risk of having their transactions clawed back.

The merger review framework will also be enhanced to monitor and prevent anticompetitive acquisitions of nascent competitors by larger incumbent players. In both enforcement and merger review, the PCC will address new digital-specific issues that could have an adverse impact on competition, such as the exploitation of data as an essential facility, or its misuse as a barrier to entry. The agency will be equipped with the knowledge and analytical tools

needed in unraveling “zero pricing” and the proper valuation of “data as currency” in digital markets. Algorithm-based discriminatory preferencing, and its consequences for data protection and privacy, shall be coherently addressed in coordination with the National Privacy Commission (NPC).

Leverage research and development efforts to identify and address competition and regulatory issues in priority sectors

The PCC, NEDA, and DTI will continue to conduct market studies in sectors or industries such as telecommunications, e-commerce, energy, water, health, and food and agriculture, where competition constraints are particularly detrimental given the value and contribution of these markets to the economy, other sectors, employment generation, and overall consumer welfare. Consideration will be given to markets that have indications of market concentration or precedents of anticompetitive behavior. These studies will also identify regulatory and competition concerns that need to be addressed and actionable recommendations to support advocacy campaigns aimed at mainstreaming pro-competition reforms in priority sectors or in making the case for launching probes or inquiries into problematic sectors for potential anticompetitive conduct. The PCC, Department of Information and Communications Technology (DICT), NPC, DOJ-OFC, DTI, and ARTA will continue to build their institutional and human resource capacity to assess competition and regulatory issues arising in fast-evolving digital markets.

The government will continue ongoing research and action to address competition and regulatory issues in specific sectors of the economy. For instance, in telecommunications, the PCC and the National Telecommunications Commission (NTC) will ensure fair, reasonable, and non-discriminatory access to essential facilities and resources controlled by incumbents to improve the digital infrastructure (*See Chapter 12*) and expand access to fast and affordable internet services (*See Chapter 8*). In energy, the PCC will work with the Energy Regulatory Commission (ERC) and continue to monitor potential abuses of market power in distribution and generation to address high rates and limited capacity in electricity markets (*See Chapter 12*). In the agriculture and food sectors, the PCC and DTI will address issues of price manipulation and exploitative pricing to protect consumers and support food security in the country (*See Subchapter 3.1*). In the pharmaceutical industry, the PCC will continue to monitor and pursue an inquiry into possible anticompetitive practices that may exist in the different segments of the supply chain to ensure competition and improve the affordability, quality, and accessibility of medicines in the country (*See Subchapter 2.1*).

Develop a framework for the determination of significant market power (SMP), and the specification of obligations on entities with SMP

Market power or dominance in and of itself, without badges of abuse, is not proscribed under the PCA. However, market power, particularly if significant, may necessitate

the imposition of obligations to prevent abuse of dominance that are not applicable to other players. The PCC will work with sector regulators to develop frameworks, including guidelines and principles, to define and determine the existence of SMP in key markets identified for the purpose of *ex ante* regulation, if necessary. The framework shall also provide guidance for when, what, and how to impose obligations on entities with SMP to protect competition in any given sector.

Ensure compliance with the Philippine Competition Act through adoption of competition compliance programs

The PCC will prioritize the adoption of competition compliance programs to provide

guidance and prevent anticompetitive agreements and behavior by and among private sector players. It will develop and promote competition compliance toolkits, and partner with national and regional associations and chambers of commerce and industry to expand private sector awareness and understanding of competition laws. It will operationalize Section 26 of the Revised Corporation Code (RA 11232), which provides the PCC with authority to impose qualifications or disqualifications on directors, trustees, or officers of corporations to promote good corporate governance, or as a sanction in its administrative proceedings.

Outcome 2: Barriers to entry and re-entry reduced

Expedite the operationalization of recently enacted economic liberalization reforms

The government, through the appropriate agencies and sector regulators, will issue rules and regulations to enforce the recently enacted amendments to the Public Service Act, and fully implement the Foreign Investments Act and the Retail Trade Liberalization Act.

Enable open access to essential infrastructure facilities in key sectors

The government will pursue the enactment of the Open Access in Data Transmission Bill to liberalize the telecommunications and broadband sectors further by removing the legislative franchise requirement for players

to build their own network and gain access to the country's spectrum resources. An open access policy is especially important for smaller and local ISPs in the country's remote islands and rural areas, which are typically left unserved or underserved. This will also benefit foreign players, encouraged by the amended Public Service Act, who may wish to enter the Philippine market and compete with their own network infrastructure.

The DICT and NTC will promote infrastructure sharing, including of government assets, by working with private owners of essential facilities. They will issue policies to ensure that all players in the ICT sector are assured of fair, reasonable, and non-discriminatory terms to access essential facilities.

In the energy sector, the ERC will hasten the full implementation of the Retail Competition and Open Access, as provided under the EPIRA, which will enable households to choose their preferred electricity provider (*See Chapter 12*).

Institutionalize the use of Competition Impact Assessment Manual/Toolkit among government agencies and local government units

Even with the passage of the PCA and the issuance of the NCP, restrictive laws and regulations that impede competition have remained in place in various sectors. The PCC, ARTA, and NEDA will work to harmonize and mainstream the use of a Competition Impact Assessment Manual/Toolkit in the law-making process of Congress and the policy- and rule-making processes of other government agencies, sector regulators, and LGUs. This is to ensure that laws, policies, regulations, and other issuances pose the least harm to market competition and allow the review and repeal of existing regulations that are

anticompetitive. The PCC will also work with the Department of Budget and Management (DBM) to include the Competition Impact Manual/Toolkit in the implementation of the Revised Philippine Government Internal Audit Program.

Owners of essential facilities and/or resources to grant fair, reasonable, and non-discriminatory terms of access

The absence or delayed implementation of important policies to ensure open access in network sectors creates an unlevel playing field as smaller competitors or potential entrants are hampered in their access to essential facilities controlled by incumbents.

To promote and strengthen competition, the government shall work with the private sector to ensure open access at fair and reasonable prices to essential or bottleneck facilities, especially in sectors where duplication of such facilities by new or smaller entrants is impractical or infeasible, such as in railways, telecommunications, and broadband.

Outcome 3: Burden of regulation reduced

Expedite efforts to automate and streamline processes for business registration, renewal, closure, and pivot

National government agencies (NGA) and LGUs will fully implement existing government programs on the automation and streamlining of government services. This includes the adoption and implementation of integrated LGU and NGA processes into the Philippine Business Hub (formerly

Central Business Portal) and Philippine Business Databank to receive applications and capture and store application data involving business-related platforms. This will (a) enable information sharing of data among LGUs and NGAs; (b) allow digital payment of registration fees; and (c) issue electronic certificates, permits, and licenses. The Philippine Business Hub will facilitate ease of compliance with the regulatory and licensing requirements covering the full life cycle of a

business from initial registration to closure, as well as in facilitating necessary changes to business purpose, or pivoting of operations to respond to opportunities or challenges in the market environment and to encourage and facilitate the entry and re-entry of MSMEs, especially as the economy recovers and moves forward from the pandemic.

Eliminate redundant, duplicative, and overlapping regulations

NGAs and LGUs, with the guidance of the ARTA and DICT, will expedite the elimination of redundant and superfluous permits and licensing steps, automate procedures, promote paperless transactions, and ensure that regulatory fees are transparent, just, reasonable, and based only on the actual cost incurred by the government in providing the service. ARTA will continue to take a whole-of-government approach to minimize as well as eliminate redundant, duplicative, and overlapping regulations. It will continue Program NEHEMIA for priority sectors, including transportation, telecommunications infrastructure, and financial technology. The Development Academy of the Philippines, NEDA, and DBM will continue to implement the Modernizing Government Regulations Program, which examines regulations with the goal of streamlining unnecessary rules, reducing compliance costs, and constantly improving good regulatory practices across NGAs and LGUs.

Establish the Philippine Ease of Doing Business Reporting System

The government will establish and fully implement the Philippine EODB Reporting System. This system will feature a localized

methodology and criteria to measure the quality of regulatory practices of government agencies in relation to their adoption of the Philippine Good Regulatory Practices and the compliance of government agencies with the provisions of the EODB-EGSD Act. It will establish a baseline system of identifying and reporting EODB reform initiatives of the government and determine incentive systems for performance targets and measurements.

Implement the National Policy on Regulatory Management System

The National Policy on Regulatory Management System is a set of policies, institutions, processes, tools, and standards employed by the government as a whole to pursue and maintain good quality regulation in the country. A common framework on good regulatory practice at all stages of the regulatory life cycle—from inception, implementation, and eventual repeal of regulations—will facilitate regulatory efficiency and coherence across NGAs and LGUs. Toward this, the government will build its capacity to implement the NPRMS. The Philippine Business Regulations Information System, a web-based platform that ensures the dissemination of and access to information on regulatory management system and changes in laws and regulations relevant to the public, will also be rolled out and implemented.

Enforce the separation of regulatory and proprietary activities of government-owned and controlled corporations

The government will enforce the separation between the regulatory and proprietary activities of government-owned and

controlled corporations (GOCCs) under the GOCC Governance Act of 2011 (RA 10149) to ensure that GOCCs are subject to the same regulatory framework as private companies. To this end, the Governance Commission for GOCCs (GCG) and other relevant agencies, in consultation with the PCC, will work with government agencies whose legislative charters provide for dual regulatory and proprietary functions, to review their mandates and ensure that structural measures are in place to limit potential conflicts of interest in their exercise of regulatory functions.

Businesses to volunteer as Anti-Red Tape Authority champions

The government shall continue to work with the private sector and the academe to adopt a whole-of-nation approach to eliminate red tape in the government as well as in private companies. ARTA shall expand its roster of private sector champions and volunteers, who are authorized to receive complaints in relation to EODB-EGSD and help promote and raise awareness on ARTA initiatives. It shall also partner with academic institutions to augment the agency's reach in promoting ease of doing business and anti-red tape practices in the country.

Cross-cutting Strategies

Adopt a whole-of-government approach to strengthen market competition

Pursue full implementation of the National Competition Policy

All government agencies will review their existing policies and regulations and identify issuances that restrict competition in markets, hinder the entry of new players, facilitate collusion, or provide undue advantage to specific firms. Such policy and regulatory restrictions on competition will be assessed in the context of the market dynamics of each industry and addressed by appropriate competition-enhancing corrective measures. National government agencies, regulatory agencies, and LGUs will be encouraged to utilize the free online training courses developed by the PCC on the NCP. These training courses aim at developing the government's capacities in integrating

competition principles in policy and rulemaking.

The government will also pursue the effective implementation of the competitive neutrality principle, which requires that all enterprises face the same set of rules and compete on equal terms. To this end, the benefits granted to GOCCs in the form of regulatory treatment, tax exemptions, and other state support measures will be reviewed, and removed if warranted, to ensure that GOCCs do not enjoy undue competitive advantages over private market participants.

The mandates of GOCCs will also be reviewed to rationalize direct state participation in the economy. The GCG will provide clearer guidelines on where the

presence of GOCCs is justified, and where state participation should be minimized by providing a framework that clearly delineates between commercial (i.e., sectors where open private competition is viable) and non-commercial (i.e., sectors where GOCCs or concessionaires are justified in having exclusive rights) activities or sectors. The framework should lead to the adoption of an accounting system that differentiates between the costs of the said commercial and non-commercial activities.

The government will capacitate and incentivize the active adoption of NCP at the local government level. Pursuant to AO 44, the Civil Service Commission (CSC), the Career Executive Service Board (CESB), and the Department of Interior and Local Government (DILG), will integrate the adoption of and compliance with the NCP and its key elements as part of the good governance conditions criteria for the grant of the PBB to government personnel and the SGLG to LGUs. The CSC, CESB, and the DILG, in consultation with the PCC, will clearly define the parameters for the implementation of the PBB and SGLG incentives. The PCC and LGU leagues will enter into agreements to facilitate mainstreaming of the NCP and ensure effective coordination and consultation in areas of concern. The PCC and NEDA will work with the DILG Local Government Academy to provide adequate capacity building on competition policy for local government officials.

To enhance technical competence in the implementation of the NCP, the government will continue to build and leverage its

institutional linkages with foreign and local centers of excellence in fields relevant to competition law and economics. The PCC will continue to implement the Capacity Building to Foster Competition Project to strengthen its institutional capacity and that of other agencies with competition-related mandates. To develop research in competition law and policy in the country, it will continue to develop academic centers of excellence, including such a center in the University of the Philippines College of Law. The center will provide research grants and enable scholars to contribute to the body of competition research and knowledge and levers for policy reform locally and internationally.

Given the PCC's growing role in the field of competition in the ASEAN region, including presiding over the negotiations on an ASEAN Framework Agreement on Competition, the PCC will broker knowledge and cultivate policy dialogue among competition authorities, sector regulators, business, and other non-governmental actors in the region. It will lead the development of a competition network among these stakeholders.

[Increase awareness, understanding, and support for the Philippine Competition Act and Philippine Competition Commission](#)

To address low appreciation and awareness of market competition in the country, the PCC will expand its advocacy to build alliances of champions in the private sector, particularly among the business community. Businesses will be encouraged to appoint Competition Compliance Officers to ensure

their compliance with the PCA. To develop an effective educational campaign promoting competition, the PCC will also highlight the benefits and gains from competition cases acted and decided upon by the agency.

It will continue to engage citizens, especially MSMEs, to play an active role in monitoring and reporting anticompetitive practices through various online and offline channels.

Promote competition and improve regulatory efficiency in and through the internet and digital technologies

Enhance monitoring and understanding of emerging technologies, markets, and business models

Innovations enabled by the internet and by emerging digital technologies such as artificial intelligence, Internet of Things, and blockchain, among others, hold immense potential for unlocking new markets and delivering new goods and services. These disruptive technologies, however, are prone to a winner-takes-all phenomenon, as evidenced by the prominence of Big Tech⁴ companies and the dominance of a few large online platforms, increasing the risk of consumer lock-in and abuses of market power.

The PCC and sector regulators will keep abreast of emerging technologies and understand how these can alter markets and business models, develop capacity and expertise to use data science and analytics, and learn from the experience of other countries to enhance their enforcement capability and develop regulatory foresight. The PCC will explore the opportunities and risks in adopting *ex ante* regulation, while continuing to build upon its existing *ex post* enforcement approach to address competition issues in the digital economy.

The agencies will also consider regulatory sandboxes (See Chapter 8), similar to the

Regulatory Sandbox Framework of the *Bangko Sentral ng Pilipinas*. This Regulatory Sandbox Framework allows startups and innovators to offer innovative financial products to a limited number of customers or environment, to encourage innovations from startups and small firms without excessive regulatory stifle.

Expand access to broadband internet and digital technologies to enhance consumer choice and facilitate digitalization and innovation among micro, small, and medium enterprises

The critical importance and transformative value of internet and digital technologies were in full display during the pandemic. They enabled the public to access information and health services, resume work, and continue their education. Broadband and digitalization also allowed MSMEs to emerge or survive during this period.

To build upon this momentum, the DICT will ensure the continuity and implementation of the National Broadband Plan to provide quality broadband throughout the country. The PCC will continue to discourage, and where warranted, prohibit exclusivity arrangements between property developers and ISPs to ensure that consumers are able to

subscribe to their preferred service providers (See Box 10.1). The DTI will continue and intensify its programs to facilitate the digital transformation of MSMEs and conduct

capacity-building activities to train MSMEs in digital marketing, digital payments, and cybersecurity, among other skills and knowledge.

Box 10.1 Whole-of-Government Approach to Competition

A whole-of-government approach to competition regulation is key to ensuring the promotion of competition in the Philippine economy. For example, several reforms have been passed that freed up access to certain internet facilities toward a more competitive broadband sector.

In a 2019 landmark case of the Philippine Competition Commission (PCC), the practice of a condominium developer limiting its tenants' choice of internet service providers only through one preferred provider was deemed illegal and proscribed by the Philippine Competition Act. Following the case, Enforcement Advisory Letters to other property developers were issued by the PCC in a proactive move to deter similar exclusivity arrangements between developers and service providers. Similar efforts to promote greater competition have successfully been achieved by the PCC acting alone, as well as in partnership with other government agencies and regulators.

In 2019, the Common Tower Policy of the Department of Information and Communications Technology (DICT) mandated independent tower companies to lease their towers to telecommunications providers, value-added service providers, and information and communications technology (ICT) services providers. In 2020, the DICT mandated certain passive telecommunications tower infrastructure to have ample access slots for co-location of active ICT equipment. In 2021, through joint issuances among multiple agencies, including the Anti-Red Tape Authority, DICT, Department of the Interior and Local Government, National Telecommunications Commission, and PCC, among others; LGUs were directed to (a) streamline the issuance of permits and licenses for the construction of passive telecommunications tower infrastructure and (b) conduct coordination mechanisms for “dig once” efforts in the installation of broadband infrastructure in roads. Also in 2021, via an executive action of the President, a law allowing direct access to satellite systems was passed that allowed both international and domestic providers to build and operate broadband facilities without the need for a congressional franchise.

Source: National Economic and Development Authority

Adopt policies to improve competition and regulatory efficiency in digital markets

The government will address competition and regulatory constraints that hinder the development of digital markets to meet the increasing need for digital transformation and improve the country's ability to leverage growth opportunities during the recovery. The passage of open access and competition-enhancing spectrum policies will be prioritized to provide affordable broadband all over the country, especially in geographically isolated and unserved areas.

The DICT will issue a comprehensive spectrum management policy, which will be implemented by the NTC in consultation with the PCC. This policy will facilitate the effective and efficient use of the country's spectrum or radio frequencies. It will explore alternative modes to allocate spectrum fairly and efficiently, including the possible use of competitive auctions, provide rules therefor, and revisit and rationalize the spectrum user fees table to provide incentives for greater investment in network expansion and deployment.

These policies shall be complemented by the amendment or repeal of increasingly obsolete laws, which are ill-suited for the regulatory challenges of the digital age, such as the Public Telecommunications Policy Act of 1995 (RA 7925) and Radio Control Law of the Philippines (RA 3846).

The PCC, in consultation with the NTC, will work to address any anticompetitive

practices, penalize abuses of dominance, and facilitate the access of smaller players to the incumbents' essential facilities based on fair, reasonable, and non-discriminatory terms. The government will prioritize the enactment of an NTC Modernization Law to equip the NTC with greater authority and legal protection in the recall of idle and underused spectrum.

Legislative Agenda

Regulatory reforms will be pursued to reduce barriers to entry and to strengthen and ensure market competition. Table 10.1 contains priority bills for the 19th Congress during the Plan period to promote competition and improve regulatory efficiency.

Table 10.1 Legislative Agenda to Promote Competition and Improve Regulatory Efficiency

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
National Telecommunications Commission (NTC) Modernization Act	Clearer powers and functions of the NTC in terms of spectrum assignment, recall, and reassignment. Passing the NTC Modernization Act will provide greater protection for the NTC and strengthen its ability to implement policies effectively through clear and enforceable powers to recall, reallocate, and reassign spectrum bands, as well as to regularly carry out spectrum use audits.	NTC, Philippine Competition Commission (PCC)
Open Access in Data Transmission Act	Increased competition in the provision of broadband services; efficient, transparent, and dynamic spectrum management. Passing the Open Access in Data Transmission Act will liberalize the telecommunications and broadband sectors by removing the legislative franchise requirement, allowing players to build their own network and gain access to spectrum. The law will remove barriers to entry for smaller and local internet service providers and new foreign players <i>(See Chapter 6)</i> .	Department of Information and Communications Technology, NTC, PCC
Consumer Act of the Philippines (Republic Act 7394) amendment and Internet Transactions Act	Increased protection for consumers and firms against fraudulent schemes. Considering the growth of e-commerce, the amendment of the Consumer Act of the Philippines, including the imposition of stiffer fines will ensure protection of consumers and firms against fraudulent schemes, including protection against deceptive, unfair, and unconscionable sales acts and practices, and observance of truth and accuracy in advertising. The Internet Transactions Act will protect consumers and firms engaged in electronic or digital transactions by improving the regulatory environment for e-commerce <i>(See Chapters 6 and 7)</i> .	Department of Trade and Industry (DTI), PCC, Securities and Exchange Commission
Magna Carta for MSMEs (RA 9501, amending RA 6977) amendment	Improved financial support and technical capacity-building programs for micro, small, and medium enterprises (MSMEs). To support the recovery and growth of MSMEs, especially those hit hard by the pandemic, the amendment of the Magna Carta for MSMEs will provide access to support services, including financial support and technical capacity-building programs and reduce barriers to entry of new MSMEs by streamlining permitting requirements. To mainstream competition issues among MSMEs, the Amendment will also include the PCC in the Micro, Small, and Medium Enterprise Development Council.	DTI
Government Procurement Reform Act (RA 9184) amendment	Remove preference for domestic entities and bidders in the procurement of goods. Competition in the procurement of goods should be made available to both foreign and domestic bidders as well as to products, regardless of where they are manufactured. Require that all government procurement data be provided to or be accessible to the PCC.	Government Procurement Policy Board

Results Matrix

Table 10.2 presents the indicators and targets during the Plan period to promote competition and improve regulatory efficiency.

Table 10.2 Results Matrix: Promote Competition and Improve Regulatory Efficiency

INDICATORS	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY / INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Intermediate Goal: Consumer Welfare Improved									
Chapter Outcome: Market Efficiency Improved									
Global Competitiveness Index (GCI) rank and score improved	Top 45% Score: 61.9 (2019)	Top 43% 62.1	Top 41% 62.7	Top 39% 62.9	Top 37% 64.3	Top 35% 64.9	Top 33% 65.1	World Economic Forum Global Competitiveness Report (WEF GCR)	Agencies responsible with the GCI pillars
Outcome 1: Anticompetitive practices diminished									
Product market rank and score improved	Top 37% Score: 57.8 (2019)	Top 36% 57.9	Top 35% 58.2	Top 35% 58.2	Top 34% 58.4	Top 33% 58.6	Top 33% 58.6	WEF GCR	Department of Trade and Industry (DTI), Philippine Competition Commission (PCC)
Extent of market dominance rank and score improved	Top 81% Score: 36.8 (2019)	Top 77% 37.9	Top 74% 38.7	Top 70% 40.0	Top 67% 42.8	Top 63% 43.2	Top 60% 43.8	WEF GCR	DTI, PCC
Outcome 2: Barriers to entry and re-entry reduced									
Market size rank and score improved	Top 22% Score: 71 (2019)	Top 21% 71.1	Top 21% 71.1	Top 20% 71.4	Top 19% 71.5	Top 18% 72.6	Top 18% 72.6	WEF GCR	DTI, PCC
New business density rank and score improved	Top 91% Score: 0.7 (2022)	Top 89% 0.8	Top 89% 0.8	Top 88% 0.9	Top 87% 1.2	Top 86% 1.2	Top 85% 1.3	World Intellectual Property Organization Global Innovation Index	DTI, PCC, Anti-Red Tape Authority (ARTA)
Outcome 3: Burden of regulation reduced									
Burden of government regulation, rank and score improved	Top 73% Score: 33.2 (2019)	Top 70% 33.8	Top 67% 35.0	Top 65% 35.5	Top 62% 37.6	Top 59% 38.9	Top 56% 39.8	WEF GCR	PCC, ARTA
Business dynamism, rank and score improved	Top 31% Score: 65.7 (2019)	Top 28% 66.0	Top 27% 66.1	Top 26% 66.2	Top 24% 67.3	Top 23% 68.7	Top 21% 69.3	WEF GCR	DTI, ARTA
Regulatory quality rank and score improved	Top 45% Score: 0.08 (2021)	Top 44% 0.09	Top 44% 0.09	Top 43% 0.15	Top 42% 0.17	Top 41% 0.19	Top 40% 0.20	World Bank Worldwide Governance Indicators Report	ARTA, Development Academy of the Philippines

- ¹ Philippine Statistics Authority. 2018 and 2021 Updating of the List of Establishments. Quezon City.
- ² V. Jerbashian and A. Kochanova. (2016). The Impact of Doing Business Regulations on Investments in ICT. *Empirical Economics* 50, 3 (May). pp. 991–1008.
- ³ Rizov, M., Vecchi, M., & Domenech, J. (2022). Going Online: Forecasting the Impact of Websites on Productivity and Market Structure. *Technological Forecasting and Social Change* 184 (November).
- ⁴ Big Tech refers to Google, Amazon, Meta, Apple, and Microsoft.

PART IV

Enabling Environment

11

**Ensure Macroeconomic
Stability and Expand
Inclusive and Innovative
Finance**

Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance

By 2040, the Philippines is envisioned to be a prosperous, predominantly middle-class society where no one is poor. In order to push for economic transformation in a post-pandemic context, a favorable business environment is required. A vibrant and healthy financial sector will be encouraged as the Philippines moves closer to becoming an efficient and more inclusive cash-lite economy in the near future. Due to limited fiscal space, national government spending shall also be made more efficient while budget priorities will be aligned with the administration's socioeconomic agenda. These strategies ensure that the development goals outlined in the Philippine Development Plan 2023-2028 will be supported by a stable, active, and sustainable national economy.

This chapter presents the challenges facing macroeconomic stability and has two subchapters. In the first subchapter, triple outcomes will be pursued to address the challenge of dealing with promotion of an inclusive, innovative, and healthy financial sector during the Plan period. These outcomes are: (a) financial inclusion broadened and deepened; (b) financial innovation strengthened and accelerated; and (c) financial sector health ensured. In the second subchapter, four outcomes will be pursued to address the challenge of ensuring sound fiscal management and improving the tax regime. These are: (a) a productive, equitable, and simple tax system established and other sources of revenues mobilized; (b) an efficient and inclusive budget system implemented; (c) local government finance strengthened; and (d) sustainable management of debt ensured.

Subchapter 11.1 Promote an Inclusive, Innovative, and Healthy Financial Sector

A vibrant and healthy financial sector is critical to ensuring a stable macroeconomy. Subchapter 11.1 presents the strategies to promote the sector's health, innovation, and digitalization. Digitalization will allow enhanced access by a greater proportion of the population to a broader range of financial products and services. These strategies will move the Philippines closer to becoming an efficient and more inclusive cash-lite economy by 2028.

Strong corporate governance and sound risk management practices coupled with the ability to leverage on digital technology contributed to the resilience of the sector during the pandemic. Digital technology also provided a more efficient means of distributing social amelioration programs to formerly unbanked recipients. The pandemic highlighted the necessity of digital technology for the financial sector.

Assessment and Challenges

The Philippine financial system remains sound and stable. The Philippine banking system proved resilient amidst the pandemic. The International Institute for Management Development (IMD) World Competitiveness Center identified the policy of the Bangko Sentral ng Pilipinas (BSP) as one of the country's key strengths.¹ The industry recovered and posted a 7 percent asset growth in 2021. Total loan portfolio grew by 4.8 percent in 2021 from a 0.9 percent contraction in 2020, while the non-performing loan (NPL) ratio remained manageable at 4 percent. Other key financial indicators remain favorable: universal and commercial banks' solo capital adequacy ratio and common equity tier 1 ratio stood at 16.5 percent and 15.3 percent, well above the BSP threshold of 10 and 6 percent, respectively, while liquidity coverage ratio registered at 200.9 percent, above the BSP threshold of 100 percent, on a solo basis.

The Philippine capital markets remain buoyant. In 2021, the Philippine Stock Exchange Index accelerated by 7.8 percent year-on-year (y-o-y) with market capitalization growth of 13.8 percent. Price-to-earnings ratio moderated to 21.3 in end-2021 from 28.5 in end-2020. There were eight initial public offerings in 2021 and eight so far as of September 2022. Y-o-y, the Philippines' total local currency (LCY) bond stock grew by 14.2 percent to PHP9.8 trillion in 2021, mostly due to government issuances (85.5% of the total LCY bond market as of end-2021).

The insurance industry is growing and remains profitable. Invested assets increased by 7.9 percent y-o-y in 2021

to PHP1.83 trillion. Total net income of the industry grew by 17.3 percent to PHP47.8 billion.

Early groundwork in digital payments regulatory framework proved crucial in supporting economic activities during the pandemic. The BSP's Digital Payments Transformation Roadmap (DPTR) provided broadened strategies, which are aligned with the objectives of the BSP-issued National Retail Payment System (NRPS)² in 2017. The NRPS paved the way for the establishment of interoperable digital payment schemes, such as the PESONet³ and InstaPay.⁴ In 2021, about a third of retail payments were already digitalized, and the digital economy contributed 9.6 percent to the country's gross domestic product (GDP).⁵

Policy framework continues to support financial inclusion, digitalization, and innovation. Ownership of financial account among Filipino adults significantly increased from 28.6 percent in 2019 to 55.6 percent in 2021, well above the BSP's target of above 40 percent. In January 2022, the inter-agency Financial Inclusion Steering Committee (FISC) launched the National Strategy for Financial Inclusion (NSFI)⁶ for 2022–2028. The NSFI serves as the country's blueprint for financial inclusion toward inclusive growth and financial resilience. Meanwhile, Land Bank of the Philippines' (Landbank) co-location with the Philippine Identification System (PhilSys) registration centers has onboarded over 8.0 million unbanked Filipinos as of June 1, 2022.

As part of the implementation of the DPTR, the BSP has approved six digital banks, the first of which was the Overseas Filipino (OF) Bank, a government-owned all-digital bank. The BSP has likewise institutionalized a regulatory Sandbox Framework to evaluate financial technology (fintech) concepts and encourage innovation in the financial system.

The BSP has been proactive in issuing policies concerning cybersecurity, consumer protection, data integrity, and adoption of global standards and best practices, among other key regulations, as well as in continuously collaborating with the payment industry and other government bodies to improve the facilities continuously and offer innovative options for digital payments.

The innovation by the Department of Finance (DOF) to offer retail treasury bonds, including USD-denominated bonds distributed digitally, allowed smaller investors to participate in the lending securities capital market.

The private sector continues to invest in the growing fintech industry. Fintech Alliance of the Philippines reports 216 fintech entities in the country. The fastest growing segments are mobile wallets, online payments, and wire transfers. It is estimated that there are 54.1 million active clients in 2021.

Laws passed supportive of financial inclusion, digitalization, innovation and health of the financial sector include Personal Property Security Act (Republic Act No. 11057), PhilSys Act (RA 11055), Innovative Startup Act (RA 11337), Financial Institutions Strategic Transfer Act (RA 11523), Financial Products and Services Consumer Protection Act (RA 11765),

National Payment Systems Act (RA 11127), amendment to RA 7653 or the New Central Bank Act (RA 11211), and Agricultural, Fisheries, and Rural Development Financing Enhancement Act of 2022 (RA 11901).

Strong policy framework and effective government support enabled the financial sector to achieve seven out of eight core indicator targets in the Philippine Development Plan (PDP) 2017-2022. These include the proportion of adults with an account, financial system's total assets/GDP, equity market capitalization/GDP (%), LCY bond market as percent of GDP, cumulative access points per 10,000 adults, microinsurance penetration, and volume of retail e-payments.

Despite positive developments in the financial sector, weaknesses and challenges remain. The digital divide persists. Issues on trust and confidence in formal financial services, especially those offered through digital channels, hamper faster inclusion and digital innovation. These are exacerbated by incidents of fraud and breach of cybersecurity. The 2021 Financial Inclusion Survey disclosed that income concerns, inadequate documents to support account ownership, and low financial literacy rate are the main challenges to opening an account, which is an important first step in accessing other financial products and services such as savings, investments, credit and insurance products.

The annual value of microfinance loans as of the end of 2021 registered at PHP89.3 billion, which is below the PHP104.7 billion target in the PDP 2017–2022 owing to the negative impact of the pandemic, particularly in terms of the decline in the number of

microfinance non-government institutions' account ownership. Microfinance institutions (MFI) face numerous challenges, including weaknesses in the capacity to assess client over-indebtedness and monitor clients efficiently, and the limited digitalization of financial services.⁷

While the insurance industry grew in terms of assets and net income, the proportion of adults with insurance declined. Likewise, the total number of individuals with microinsurance coverage decreased.

For cooperatives, business continuity and resiliency are some of the challenges to be hurdled. Adoption of technological innovations

will enable cooperatives to reduce costs and improve accessibility of services to the members.

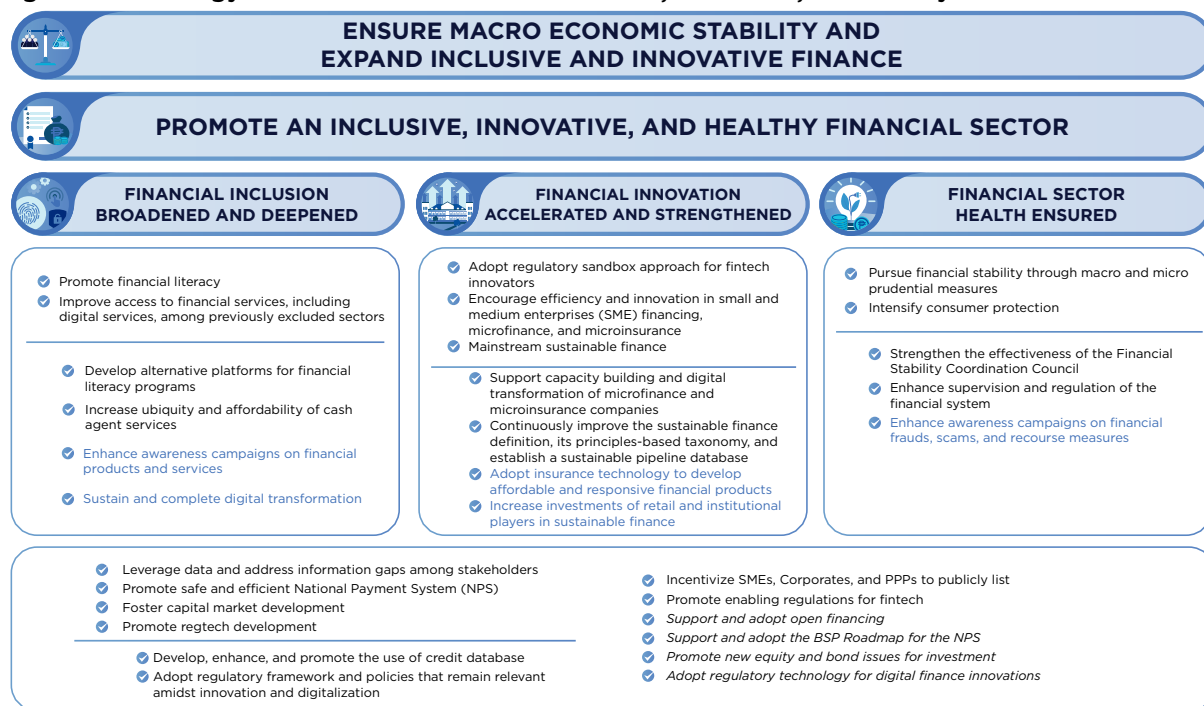
Other challenges remain that need to be addressed to achieve an inclusive, innovative, and healthy financial sector. Numerous documentary requirements for business registration and lack of access to venture capital funds hinder fintech development and financial innovation in general. Banks have to embrace digital transformation fully and adopt a “coopetition” perspective to allow open banking to flourish. The development of Philippine capital markets lags behind that of Association of Southeast Asian Nation peers while issues on mainstreaming sustainable finance remain.

Strategy Framework

To ensure macroeconomic stability, the financial sector must be characterized by greater inclusiveness, beneficial innovation, and continuing health. Toward these goals, financial inclusion must be broadened and deepened, financial innovation accelerated and strengthened, and the health of the financial sector ensured. These outcomes are the expected results of the 11 main strategies proposed in the diagram below. Some strategies cut across all three expected outcomes. The three outcomes are likewise interconnected. For instance, an inclusive

financial system and a healthy financial sector can be mutually reinforcing. If the financial system is stable, people will be encouraged to deposit in banks and use formal financial services. On the other hand, retail deposits provide a stable funding base during bank runs (as opposed to large-value deposits of big-ticket depositors). Financial innovations that address access barriers among traditionally unserved/underserved markets (e.g., low-income households, informal workers) can support financial inclusion objectives.

Figure 11.1.1 Strategy Framework to Promote an Inclusive, Innovative, and Healthy Financial Sector



Note: Sample sub-strategies for government and private sector (italicized) participation in achieving main strategies were indented.

The 11 main strategies require cooperation between the private sector and the government. The strategy framework also shows samples of specific sub-strategies classified according to the degree of responsibility for delivery of either the private sector or the government. The sub-strategies

were mostly culled from and considered as among the most important measures and strategies listed in various strategy documents, e.g., FISC NSFI 2022–2028, Inter-Agency Task Force for Sustainable Finance Road Map, and International Monetary Fund (IMF) assessment reports.

Strategies

Outcome 1: Financial inclusion broadened and deepened

Financial inclusion is not only about increasing the number and proportion of the country's population with access to financial products and services. Financial inclusion involves reducing the demographic disparities among those who are able to participate in the formal financial sector and those who are unable. It also means that those who are able

to participate can access not just payment systems but also a broader range of products and services. This outcome can be achieved by promoting greater awareness among the population of the benefits of participating in the formal financial sector and by increasing the range of products and services they can more easily access.

Promote financial literacy

The government will develop alternative platforms for financial literacy programs, including for OFs e.g., through the BSP, Landbank and other government financial institutions, and other financial regulators, such as the Cooperative Development Authority, Securities and Exchange Commission (SEC), Insurance Commission, and Philippine Deposit Insurance Corporation. Private financial institutions (FI)—both banks and non-banks—can enhance the awareness campaigns on financial products and services.

Improve access to financial services, including digital services, among previously excluded sectors

The government will enable broad-based access to both traditional and digital financial services by accelerating the implementation of PhilSys and expanding its use in the financial sector. In this endeavor, the OF Bank and interested stakeholders can collaborate with the Philippine Statistics Authority to facilitate their onboarding into the system.

Promoting more savings and investments among OFs and their families may be achieved through improved digital platforms and remittance services, which the government can in turn help foster through greater support for innovation and competition in the sector. Improved financial and digital infrastructure would not only facilitate cost and credit risk reduction, but also the wider-scale adoption of digital financial services. In off-grid areas, the BSP will promote the development

of interoperable ‘offline’ digital payment solutions that would enable financial transactions to take place without the need for internet connection, consequently boosting financial inclusion in these areas. As a rule, all the digital transformation programs of FIs should be consistent with the BSP DPTR.

Fostering the growth and development of smaller FIs involves addressing some of the disadvantages that they face for being small. The government will develop and implement a regulatory framework for the participation of qualified MFIs, non-government organizations, and cooperatives in retail payment systems governed by a payment system management body, such as the Philippine Payments Management, Inc. (PPMI), which with increased digitalization, would enable smaller FIs’ greater efficiency, diversity and flexibility in the services that they can offer. Moreover, the government will promote a shared agent network framework primarily to increase the ubiquity and affordability of cash agent services. To provide venture capital funds to private sector fintech companies, the National Development Company will be revitalized to assist in the growth of fintech companies delivering digital financial services.

Outcome 2: Financial innovation accelerated and strengthened

Rapid advances in technology and the increasing needs of the market – both in periods of calm and crisis – have fostered the development and acceptance of a wide array of innovative financial products and services in the sector. Innovation can be beneficial and thus must be quickly made available to consumers. However, it will be prudent to test innovative products and services before these are made fully available to consumers. While innovation across a wide range of products and services is helpful, the government has to ensure innovative progress in important developmental markets, products, and services.

Adopt a regulatory sandbox approach for fintech innovators

The BSP will encourage fintech companies to capitalize on the regulatory sandbox of the BSP to ensure that innovation will benefit users while complying with regulations. Using its four-stage process of application, evaluation, testing and exit, the BSP will continue to maintain a test and learn environment to encourage responsible innovation. The private sector, specifically fintech companies who qualify, can participate to test their products and services in the regulatory sandbox. BSP-supervised financial institutions (BSFI) can take advantage of the “regulatory sandbox lite” feature of the framework.

Encourage efficiency and innovation in small and medium enterprise financing, microfinance, and microinsurance

The government will create an enabling environment and adopt programs to promote financing products responsive to the needs of micro, small and medium enterprises (MSME) and cooperatives which may not have the necessary documents, credit history, or collateral to access the usual financing sources. Value chain and supply chain financing, as well as movable asset financing, are lending methodologies that can viably expand the financing options of MSMEs and cooperatives for their working capital and other financing requirements. Well-designed guarantee programs, efficiency enabling electronic platforms, and enabling laws, such as for modern warehouse receipts systems, are some of the necessary conditions for a vibrant market for movable asset financing, including supply chain financing and warehouse receipts financing. Additionally, the government will enhance the implementation of the Credit Surety Fund through the organization and strengthening of Credit Surety Fund Cooperatives to assist in credit risk mitigation for MSMEs.

Moreover, enhanced support for MSMEs and cooperatives, especially in the regions, can be achieved through the provision of credit guarantee facilities under the Philippine Guarantee Corporation (PHILGUARANTEE), with the aim of facilitating and promoting trade and

investments and regional development. PHILGUARANTEE's MSME Credit Guarantee Program will target priority MSME and agriculture segments, including women-owned and women-led enterprises. To diversify financing sources, especially for MSMEs and cooperatives, the SEC will encourage crowdfunding by continuously promoting competition in the market through the promulgation of rules for registration (e.g., granting of more permits) and licensing of innovative and other trading markets for innovative securities, securities of small and medium growth and venture enterprises, and technology-based ventures.

The government will support the capacity building and digital transformation of microfinance and microinsurance companies and will promote the development of microinsurance products that cover disaster risks. The expansion of agriculture insurance will be promoted through greater private sector participation. The private sector can adopt insurance technology (InsurTech) to develop affordable and responsive financial products. Markets and mechanisms for

risk protection shall likewise be expanded, including social insurance and pension, while the capabilities of Financial Service Providers (FSP) that are mission-driven and strategically positioned to serve rural and low-income communities shall also be strengthened.

Mainstream sustainable finance

The government will continuously improve the mainstreaming of sustainable finance through the adoption of a principles-based taxonomy, the establishment of a sustainable pipeline database, and the promotion of sustainable financial products. Financial institutions will need to institutionalize sustainability principles in their management and governance frameworks and will have to consider, where relevant and applicable, strategies, priorities, and guiding principles contained in the Philippines Sustainable Finance Roadmap and Philippine Sustainable Finance Guiding Principles. Moreover, the private sector can support this strategy by promoting investments in sustainable finance to their retail and institutional clients and their own asset management groups.

Outcome 3: Financial sector health ensured

The financial sector, especially BSFIs, is a significant component of the economy. It is vital to ensure the health, in terms of stability and growth, of these financial institutions. The health of the sector is also reflected in the confidence of consumers in the country's financial system, which in turn is fostered when consumers do not unduly suffer financial asset losses due to inadequate consumer protection.

Pursue financial stability through macro and micro prudential measures

A safe and sound financial system serves as an important foundation for accelerating financial innovation and deepening financial inclusion. To this end, the BSP will continue pursuing its mandate to maintain financial stability through the Financial Stability Coordination Council

(FSCC), an inter-agency council tasked to ensure financial stability through macroprudential measures to manage systemic risk. To enhance the effectiveness of the FSCC, the IMF⁸ recommends enhancing the macroprudential strategy framework, expanding its macroprudential toolkit,⁹ and introducing macroprudential stress testing. Additionally, the influence of FSCC decisions can be strengthened by providing sectoral regulators¹⁰ with a financial stability objective. Efforts of financial regulators to enhance supervision and regulation of the financial system through information sharing, harmonization of regulations, and coordinated supervisory measures under bilateral arrangements and of the Financial Sector Forum are likewise critical in promoting financial stability. The BSP will also maintain close supervision of banks

and adopt microprudential measures to ensure the protection of customers and other stakeholders.

Intensify consumer protection

The government will intensify financial consumer protection by effectively implementing the Financial Products and Services Consumer Protection Act, including more effective client recourse and stronger cybersecurity measures. The continued enhancement of the regulatory environment and capacities will promote greater innovation, competition, and consumer protection across all FSPs. Meanwhile, private FIs can ramp up awareness campaigns on financial frauds, scams, and recourse measures.

Cross-cutting Strategies

The following strategies cut across and will help achieve the three desired outcomes of financial inclusion, innovation, and health. The availability and regulated sharing of timely, accurate, and reliable information will allow for more efficient funding decisions, broader and protected consumer access to financial products and services, and prudent and beneficial innovation. The development of the capital markets, through progressive and innovative products and policies, will provide more investment opportunities to retail investors, broadening and deepening financial inclusion and at the same time improving the resiliency of the financial sector with a deeper capital market. An efficient and secure national payment system

(NPS) will enable and support the growth of financial transactions. Finally, the use of technology for reporting, supervision, and compliance will facilitate financial inclusion and innovation and more importantly, ensure a well-functioning financial sector.

Leverage data and address information gaps among stakeholders

The government will promote the use of credit databases;¹¹ develop frameworks and tools for collecting and sharing the financial data of agriculture-related firms, MSMEs and cooperatives for credit evaluation; fully operationalize the movable collateral registry system; and promote the secure sharing of financial data among stakeholders. The

passage of the Warehouse Receipts law can significantly enhance MSMEs' access to short-term financing, including value-chain financing for exports and agriculture. The government will establish a credible registry to increase the participation of both borrowers and lenders, raise liquidity, and allow greater access to financing by MSME borrowers and more investment outlets for retail investors.

Meanwhile, the private sector can support and adopt open financing to utilize permissioned-access to financial information needed to develop and offer innovative products or services that are responsive to customers' needs. The government, through the Open Finance Oversight Committee, shall promote non-discriminatory membership by ensuring that key areas of interest of the financial industry are adequately represented and that all members and applicants for membership are treated fairly and consistently. Moreover, the BSP intends to approach the implementation in a tiered manner (e.g., by data sensitivity, data type, and data holder type) to ensure that risk spillovers are mitigated and benefits of open finance are optimized.

Promote safe and efficient National Payment System¹²

BSFIs will adopt and implement the digital transformation framework laid out in the BSP DPTR. At the same time, the BSP will continue to build capacity to ensure that it adopts regulatory frameworks and policies that remain dynamic amidst innovations in and digitalization of the country's payment system.

Foster capital market development

Capital market development can enhance domestic financial stability by providing new tools not only to raise funds, but also manage risks.¹³ Fostering capital market development involves encouraging the listing of qualified firms to enable them to raise funds in the equity market. In this endeavor, the SEC, together with the Philippine Stock Exchange, will educate corporates about the easing of listing requirements. Moreover, the government will incentivize SMEs and PPPs to become publicly-listed firms and will privatize selected government-owned and -controlled corporations and consider publicly listing those which can be attractive to retail and institutional equity investors.

In terms of developing the domestic credit market, the government will support the development of a local credit market and a credible and independent local government unit (LGU) credit rating system, including the conduct of a comprehensive preliminary study on the development of an LGU bond market (*See Chapter 11.2*). This would provide the public both a means to participate in local governance and an alternative channel for their savings to fund productive investments. As a source of funds, the government can leverage OF remittances for strategic development.

The private sector and government, working jointly in the Capital Markets Development Council, will continue to implement the strategies outlined in the current Capital Markets Development Road Map. Banks can encourage their medium and large corporate clients to strengthen their capital structure

by raising equity in the stock market; or for corporates to leverage their balance sheets, raising long-term funding via bond issuances.

Banks can also promote new equity and bond issues for investment through their retail and institutional clients, including small investors who should be able to access these investment products through the banks' digital services.

Promote RegTech development

BSP will continue to promote the use of regulatory technology (RegTech) by supervised entities and adopt supervisory technology as it digitalizes reportorial requirements and uses artificial intelligence

for its supervisory functions. RegTech will help fight cybercrimes and benefit financial sector firms and supervising agencies. To improve regulatory compliance, the private sector can adopt RegTech in pursuing greater digitalization to improve the design and delivery of innovative financial products and services. RegTech will be able to provide efficient and effective public and private sector solutions to prevent fraud, money laundering, and terrorist financing; streamline prudential reporting; conduct effective creditworthiness assessments; and provide a more efficient, timely, and accurate manner of meeting reportorial and compliance requirements, among others.

Legislative Agenda

Table 11.1.1 presents the priority bills for the 19th Congress to promote an inclusive, innovative, and healthy financial sector.

Table 11.1.1 Legislative Agenda to Promote an Inclusive, Innovative, and Healthy Financial Sector

PROPOSED BILL	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Bank Deposits Secrecy Bill	This bill will strengthen the banking system's capacity to effectively combat tax evasion, money laundering, and other financial crimes.	BSP
Internet Transaction Act	This act will regulate all Business-to-Business and Business-to-Customer commercial transactions over the internet, including those related to internet retail, online travel services, digital media providers, ride hailing services, and digital financial services	Department of Trade and Industry
Digital Payments Act	This aims to provide ample legal support for all government institutions to adopt digital payments in collections and disbursements, including the provision of the corresponding budgetary requirement and appropriations to support the transformation of payments received and disbursed into digital form; and to grant authority to relevant government institutions to develop an incentive mechanism that would encourage merchants to adopt digital payments in their operations, among others.	BSP
Capital Markets Development Act	It will expand capital market by developing robust institutional investor base, strengthening regulatory environment, and promoting financial literacy.	Securities and Exchange Commission (SEC)
Financial Accounts Regulation Act	It aims to strengthen consumer protection and impose higher penalties for financial cybercrimes.	BSP
Amendments to the Warehouse Receipts Law	This will overhaul the present warehouse receipt system and provide an online registry system where all electronic warehouse receipts can be registered and accessed.	SEC

Results Matrix

Table 11.1.2 presents the indicators and targets during the Plan period to promote an inclusive, innovative, and healthy financial sector.

Table 11.1.2 Results Matrix: Promote an Inclusive, Innovative, and Healthy Financial Sector

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Outcome 1: Financial inclusion broadened and deepened									
Proportion of adults (15 years and older) with an account at a bank or other financial institutions or with a mobile-money service provider increased (%)	55.6 (2021)	≥70.0	≥70.0	≥75.0	≥75.0	≥80.0	≥90.0	BSP Demand Side survey	BSP
Proportion of E-income socioeconomic class with accounts to proportion of ABC income class with accounts increased (%)	55.1 (2021)	≥60.0	≥60.0	≥65.0	≥65.0	≥70.0	≥75	BSP Demand Side Survey	BSP
Outcome 2: Financial innovation accelerated and strengthened									
Volume of digital payments over total retail payment transactions in the country increased (%) ^a	30.3 (2021)	50.0	52.0-54.0	54.0-58.0	56.0-62.0	58.0-66.0	60.0-70.0	Payment System Oversight Department Dashboard	BSP
Number of financial technology (fintech) companies increased	216 (2021)	221	226	231	240	250	260	Fintech Alliance	SEC
Outcome 3: Financial sector health ensured									
Ratio of Financial System's Total Assets to gross domestic product (at current prices) increased (%)	149.4 (2021)	129.5	129.5	129.5	129.5	129.5	129.5		
a) Banks and Non-Banks ^b	135.0 (2021)	>116.0	>116.0	>116.0	>116.0	>116.0	>116.0	Report on Total Resources of the Philippine Financial System, National Income Accounts	BSP, Government Service Insurance System (GSIS), Social Security System (SSS), etc. ^c
b) Insurance Commission (IC) supervised	11.7 ^d (2021)	11.0	11.0	11.0	11.0	11.0	11.0	IC Annual Reports, National Income Accounts	IC
c.) Cooperative Development Authority (CDA)-supervised cooperatives (less coop banks and insurance coops)	2.7 (2021)	2.5	2.5	2.5	2.5	2.5	2.5		CDA

- a/ Refers to the percentage of digital payments volume over total retail payments volume where digital payment refers to a payment transaction between two parties where both the payer and payee utilized digital payment instrument/channel in making the transaction. While retail payments refers to payments that meet at least one of the following: (a) the payment is not directly related to a financial market transaction; (b) the settlement is not time-critical; (c) the payer, the payee, or both are individuals or non-financial organization; or (d) either the payer, the payee or both are not direct participants in the payment system that is processing the payment.
- b/ Non-banks comprised of BSP-supervised Investment Houses, Financing Companies, Investment Companies, Securities Dealers/Brokers, Pawnshops, Lending Investors, Non-Stock Savings and Loan Associations (NSSLAs), Credit Card Companies, Government Non-bank Financial Institutions (i.e., PHILGUARANTEE and Small Business Corporation[SBC]), and Authorized Agent Banks (AAB) Forex Corporations, wherein assets are reported gross of allowance for probable losses and net of depreciation. Data on non-banks are based on Consolidated Statement of Condition, except for NSSLAs which is based on Financial Reporting Package. Non-bank institutions also include SSS, GSIS, and private insurance companies (i.e., life insurance companies, non-life insurance companies, and professional reinsurers), wherein assets are reported net of allowance for probable losses and depreciation.
- c/ BSP, GSIS, SSS, and other Government Non-Bank Financial Institutions (e.g., PHILGUARANTEE and SBC).
- d/ Data sourced from unaudited financial statements submitted by Insurance Commission-regulated entities for Q4 2021.

Subchapter 11.2 Ensure Sound Fiscal Management and Improve the Tax Regime

Significant gains have been made by the government in broadening tax bases and strengthening excise taxation as a regulative tool. The structure and administration of the incentive system have been reformed to harmonize the revenue needs of the country with the promotion of investments.

The post-pandemic challenge is to sustain the country's economic recovery while maintaining fiscal sustainability amid global uncertainties. The country's socioeconomic development needs will continue to be financed through a progressive and simplified tax system and more efficient tax administration through the adoption of digital technology.

National government spending will be made more efficient while budget priorities will be aligned with the administration's socioeconomic agenda. Consistent with the devolution of services to local governments, rightsizing of the bureaucracy will be pursued. At the same time, the government will continue to recognize the important role of the private sector in development.

Sources of funding will be diversified through the development of the capital market, including the local government bond market.

These policy thrusts are aligned with the Medium-Term Fiscal Framework of the incumbent administration. With the efficient mobilization and utilization of resources, the national government will focus on achieving fiscal sustainability by bringing down the deficit-to-gross domestic product (GDP) ratio to 3 percent by 2028 and the national government debt-to-GDP ratio to less than 60 percent by 2025.

Assessment and Challenges

The global health crisis triggered a sharp decline in economic activities, which negatively affected tax collections. Revenue-to-GDP ratio declined to 15.5 percent in 2021 from 16.1 percent in 2019. Tax effort also slid to 14.1 percent in 2021 from 14.5 percent in 2019. On the expenditure side, primary expenditure-to-GDP substantially increased to 21.9 percent in 2021 from 17.6 percent in 2019 due to increased spending on pandemic response and recovery measures. The budget deficit widened to 8.6 percent of GDP in 2021 from 3.4 percent in 2019. Consequently, the debt-to-GDP ratio increased from 39.6 percent in 2019 to 60.4 percent in 2021.

There was also a slight uptick in the share of interest payments to total disbursements from 9.0 percent in 2020 to 9.2 percent in 2021, although this is lower than the 9.5 percent in 2019.

Large and persistent budget deficits threaten macroeconomic stability, as these not only result in a debt overhang, but also in high interest rates and even inflationary problems that result from debt monetization. Moreover, inadequate revenues constrict the ability of the government to provide adequate goods and services to the public, particularly in terms of allocating resources for physical (infrastructure) and human capital (health

and education) development, which have long-term growth implications.

Meanwhile, bureaucratic inefficiencies and limited absorptive capacity of national government agencies impede the timely implementation of measures to effect economic transformation, including the flagship infrastructure projects. Varying capacities of the local government units (LGU) to absorb larger fiscal transfers in light of the implementation of the Supreme Court (SC) ruling on the *Mandanas-Garcia* Case may affect the delivery of devolved functions. A smooth transition to full devolution, therefore,

requires an extensive capacity development program and assistance for LGUs with limited local resources.

Moreover, the recovery process is challenged by global economic slowdown, tightening of global financial conditions, higher-than-expected inflation, worsening climate change issues, and the threat of a resurgence of new virus strains. The downside external and domestic risks put pressure on the government's fiscal consolidation strategy and hamper planned public investments in the medium term.

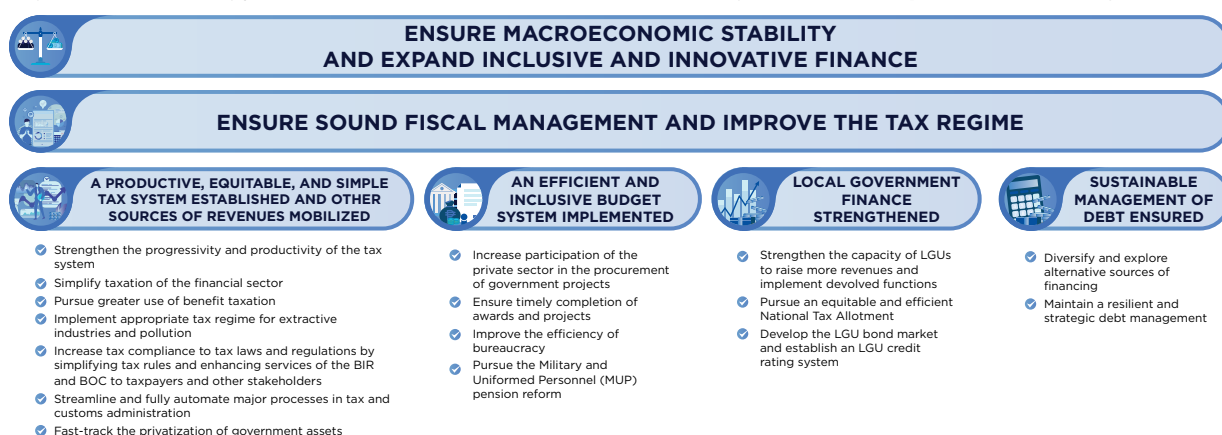
Strategy Framework

Sound fiscal management and an improved tax regime will help ensure a stable macroeconomic environment. Adequate revenues will be raised to finance economic development and provide better education, health, and social services. To sustain sound fiscal management, the following outcomes will be pursued: (a) productive, equitable, and simple tax system; (b) efficient and inclusive budget system; (c) stronger local government finance; and (d) sustainable management of debt (*See Figure 11.2.1*).

By 2028, the following transformation of the fiscal sector will be achieved:

- a) Efficient revenue collection and high compliance due to simple and automated processes;
- b) Broader revenue bases, lower tax rates, and fewer tax exemptions;
- c) An appropriate tax regime for industries generating negative externalities or those causing damages to society;
- d) Vibrant and efficient public-private partnerships (PPP);
- e) A firm belief of taxpayers that taxes are well-spent; and
- f) Strong local governments that raise more than 30 percent of their total revenues from local sources.

Figure 11.2.1 Strategy Framework to Ensure Sound Fiscal Management and Improve the Tax Regime



Strategies

Outcome 1: A productive, equitable, and simple tax system established and other sources of revenues mobilized

Strengthen the progressivity and productivity of the tax system

Continuously broaden the income and value-added tax (VAT) bases through stronger taxation of the self-employed. Without a withholding system, there is no assurance that the self-employed will pay a tax on their income. Also, VAT may not be collected by their employers, especially among non-resident corporations without a permanent establishment in the Philippines. Accordingly, a broader tax base and more equitable tax system will be achieved through a thorough tax mapping, which will require the alignment of government information technology (IT) and data infrastructure to support the sharing of information relevant to tax enforcement. All individuals registered with government corporations, such as Philippine Health Insurance Corporation (PhilHealth) and Social Security System

(SSS), can be part of the Bureau of Internal Revenue (BIR) database.

Align tax laws and regulations with the New Economy. Taxing digital transactions involves determining the jurisdiction where the tax should be paid or the “*situs*” of the tax. Tax rules will be reviewed to broaden the concept of “permanent establishment,” evaluate the formula for profit allocation, and require digital platforms for firms, including non-resident firms doing business in the Philippines, to register with tax authorities and collect a VAT from their sales. Fulfillment houses or third-party warehouses responsible for handling goods on behalf of foreign suppliers will also be required to keep records. The BIR and Bureau of Customs (BOC) will complement each other’s efforts in monitoring cross-border transactions.

The imposition of VAT on digital service providers for non-resident corporations has already been approved by Congress. Its efficient implementation will be clearly planned and laid out so that the estimated PHP9.6 billion gains from the measure can be realized.

In addition, a study will be conducted to assess the country's possible membership in the Inclusive Framework (IF) on Base Erosion and Profit Shifting. An IF membership will enable the government to collaborate with other member states on the implementation of domestic and international measures to address tax avoidance and safeguard the tax base.

Continuously review exemptions and preferential treatment provided by tax laws. Different forms of income, such as dividends, royalties, capital gains from stock transactions, and interest income, are subject to different tax rates. Neutral taxation of all capital income can minimize avoidance and progressively strengthen revenue mobilization.

The zero-rating of goods and the remaining exemptions in the Tax Code will be reviewed to limit exemptions to raw food, agriculture, education, and health. This is important as exemption results in cascading taxation. Sellers of exempt products are unable to deduct the VAT they paid on inputs. By breaking the audit trail, VAT exemptions undermine the self-enforcing nature of the VAT.

Broaden the coverage of goods subject to the excise tax on non-essential articles. The

Tax Code identifies a very limited number of goods as non-essentials. These include jewelry, perfume, yachts, and other vessels intended for sports. These non-essential items are subject to a 20 percent tax on their wholesale price or value of importation. The inclusion of all non-essential articles in the tax coverage would improve the progressivity of the indirect tax system, considering that VAT is imposed at a uniform rate. The success of this measure will depend on the formulation of effective criteria to determine non-essential commodities. To this end, estimates of the price elasticities of the demand for goods can provide helpful information.

Strengthen the potential of the excise tax to achieve policy goals. The inclusion of other motor vehicles, such as motorcycles and pick-up trucks, under the excise tax regime will be considered. The progressivity of the excise tax rates on motor vehicles will also be reviewed, especially on high-priced vehicles.

[Simplify taxation of the financial sector](#)

The Passive Income and Financial Intermediary Taxation bill complements the reforms introduced by the Tax Reform for Acceleration and Inclusion Law to simplify the taxation of financial transactions. A proposed single rate of 15 percent will be imposed on interest income, dividends, and capital gains. Uniformity in the taxation of banks, quasi-banks, and certain non-bank financial intermediaries will be achieved with a 5 percent gross receipts tax. Rate differentiation based on the maturity of financial instruments will be removed.

The taxation of insurance services, such as pre-need, pension, life, and health maintenance organization insurance, will be made uniform at two percent of the premium. The tax on Initial Public Offering and the Documentary Stamp Tax on specific transactions will be removed to support capital market development.

Pursue greater use of benefit taxation

User charges are levied on consumers of government goods and services in relation to their consumption. They are not primarily intended to raise revenues but to promote economic efficiency, since underpricing, free, or subsidized provision of goods and services results in over-consumption.

The amount of user charges will then be reviewed to ensure that citizens properly value the services the government provides, and that the government can at least recover production and delivery costs. A subsidy component for the poor will be part of the program to address equity concerns. Moreover, an incentive system for government agencies that collect the fees will be devised.

Implement appropriate tax regime for extractive industries and pollution

A special fiscal regime will be designed to ensure that the state, as a resource owner, receives an appropriate share of the economic rent enjoyed by extractive industries, particularly mining. Since they create negative externalities that impose risks on communities' health and safety, the efficient

taxation of extractive industries requires a delicate balance between developing natural resources on one hand and safeguarding well-being and patrimony on the other hand.

The government will also strengthen the monitoring and governance of the extractive sector by enhancing civic space, people participation, and institutionalizing Extractive Industries Transparency Initiative (EITI) principles at the national and sub-national levels.

Another potential fiscal measure is a carbon tax that can encourage a shift to less-polluting fuel and reduce carbon dioxide emissions. The government can set a price for each ton of greenhouse gas (GHG) emissions, such as carbon dioxide or methane. GHG emissions can be estimated based on the consumption of fossil fuels. There are estimates of "carbon footprints," or how much carbon dioxide is released per unit of oil or gas consumption. The tax can piggyback on existing fuel taxes and taxes paid by mining and gas drilling companies.

An appropriate fiscal regime for drilling natural gas and oil will be designed to compensate the state for the depletion of a finite resource. The government will also intensify the monitoring of the effects of the operations of extractive industries on the environment and public health.

Increase tax compliance to tax laws and regulations by simplifying tax rules and enhancing services of the BIR and BOC to taxpayers and other stakeholders

Voluntary compliance in filing tax returns and paying taxes will be facilitated by simplifying rules and processes. Moreover, contactless processes and procedures will be promoted by digitalizing all transactions with tax and customs offices.

The BIR will ramp up its efforts to simplify registration, invoicing, and accounting requirements. It will enhance the portability of tax transactions by removing venue restrictions in the filing and payment of taxes. Allowing taxpayers to file and pay their taxes anywhere will ease compliance.

The BOC will intensify its work in facilitating trade using the National Single Window on automated and integrated licensing, permit, clearance, and certification systems. The BOC's implementation of the National Action Plan on Paperless Trade Agreement will complement this program.

The government can include in the educational curriculum programs that will enable better public appreciation of how taxes are spent, thus encouraging positive tax compliance behavior. At the same time, revenue-collecting agencies will meet taxpayers' expectations through the provision of honest, helpful, and efficient services.

Streamline and fully automate major processes in tax and customs administration

The BOC has gone a long way in digitalizing its processes, with 91.2 percent or 155 of 170 customs processes already automated. The remaining 15 processes, which include a public auction, issuance of a certificate of shipment, and certification of re-exportation commitment, will also be digitalized.

The BIR will focus on improving a digital infrastructure for seamless electronic data transmission. In this connection, the implementation of a Digital Transformation Program will be fast-tracked to automate compliance checks and audit selection processes.

Fast-track the privatization of government assets

The privatization program will be continuously pursued to broaden ownership base and foster greater private sector participation. The Privatization and Management Office has initiated the verification and disposition of about 27,000 assets that are still in the Asset Registry, including the claims of mining corporations and of the National Government Mining Assets.

Outcome 2: An efficient and inclusive budget system implemented

Increase participation of the private sector in the procurement of government projects

The expertise and efficiency of the private sector will increasingly be harnessed through PPP projects. Partnerships will encourage the private sector to co-own the responsibilities of fostering development. PPPs will ensure that infrastructure development and service delivery will have a sustainable funding source.

The Congress is currently deliberating on a bill that aims to develop PPP projects that are well-structured and are consistent with development goals and the climate change agenda. Further, the revision of the implementing rules and regulations (IRR) of the Build-Operate-Transfer Law will reflect best investment policies and practices.

Ensure timely completion of awards and projects

The full implementation of the Modernized Philippine Government Procurement System, automation of procurement-related reports, and simplification of bidding documents will help streamline procurement processes and improve budget utilization. A Budget Modernization Bill has also been introduced in Congress, seeking to institutionalize reforms in the Cash Budgeting System and Public Financial Management (PFM). PFM reforms will institute fiscal discipline to ensure that budget proposals from line agencies will undergo extensive preparation, and will be implemented on time. The IRR

of the Government Procurement Reform Act will likewise be further reviewed to address procurement delays.

Improve the efficiency of bureaucracy

The government will embark on a National Government Rightsizing Program (NGRP) that will result in a more agile, efficient, and technology-adept workforce. The NGRP will result in greater bureaucratic efficiency of government, and the corresponding efficiency gains will constitute additional resources to finance more spending on infrastructure and social services. Simplified systems will enhance productivity, minimize red tape, and promote a higher level of citizen satisfaction with the performance of the government. More detailed and specific strategies to improve bureaucratic efficiency can be found in *Chapter 14*.

Pursue the Military and Uniformed Personnel pension reform

Actuarial studies estimate that the current Military and Uniformed Personnel (MUP) pension system requires PHP9.6 trillion. As such, reforms in the MUP pension system will be instituted to make the system financially sustainable. These include a mandatory contribution scheme and increase in the compulsory retirement age, among others, to curb the ballooning pension costs and ensure fiscal sustainability.

Outcome 3: Local government finance strengthened

Strengthen the capacity of LGUs to raise more revenues and implement devolved functions

The government will support the capacity of local governments in resource generation. A Real Property Valuation and Assessment Reform Bill has been proposed to strengthen tax collection through the regular valuation of real properties using improved valuation standards. The local tax structure, which was formulated in 1991, will be revisited to make it simpler, more efficient, and responsive to the current economic environment. Many LGUs have been recognized for their innovative practices in fiscal management. These practices will be replicated and scaled up through peer mentoring, to be spearheaded by the Bureau of Local Government Finance, in partnership with the Philippine Tax Academy-Local Government Finance Institute.

In line with the implementation of the SC ruling on the *Mandanas-Garcia* Case, the government will ensure that the increased resources of LGUs will result in the implementation of Devolution Transition Plans and the efficient delivery of public services. Interventions to improve the capacity of LGUs in the delivery of the devolved services will also be provided by national government agencies, to be led by the Department of Budget and Management and the Department of the Interior and Local Government (See Chapter 14).

Pursue an equitable and efficient National Tax Allotment

The potential of the National Tax Allotment (NTA) to lessen regional disparities will be explored. Currently, 25 percent of the NTA is equally distributed among LGUs, regardless of income. The poor and wealthy LGUs receive equal NTA shares. As such, the current NTA formula falls short in incentivizing LGUs to utilize their taxing powers fully. A step forward involves basing the NTA shares of LGUs on their financial capability and revenue effort, both to enhance equity considerations in the NTA and encourage LGUs to intensify their revenue-raising efforts.

Develop the LGU bond market and establish an LGU credit rating system

Bond financing can provide LGUs with access to direct funding sources, and in the process, require them to practice discipline in transparency, accounting, and auditing finances. The national government will thus conduct a comprehensive preliminary study on the development of the LGU bond market to assure the confidence of possible bondholders.

The national government will also support the development of a local credit market and LGU credit rating system (See Subchapter 11.1). Such credit market system would allow the public to participate in local governance and invest their savings in worthwhile local programs.

Outcome 4: Sustainable management of debt ensured

Diversify and explore alternative sources of financing

Corporate, institutional, and individual savings can be mobilized to finance government programs through the deepening and broadening of the domestic capital market, supplemented with financial literacy programs and the promotion of digital finance technology (*See Subchapter 11.1*) to spread awareness of and improve access to government securities as alternative investment vehicles.

The government will explore creative and innovative borrowing structures to spur participation in the government securities market, especially of non-traditional Filipino investors such as small savers domiciled in the Philippines and abroad, to broaden the government's investor base.

A more competitive tax regime on interest income that is harmonized with regional peers will also encourage foreign participation in the domestic bond market. This would enable the government to raise more foreign investments in the Philippine peso, and in so doing, mitigate the incurrence of currency mismatches attendant with the alternative case of international debt floats.

The government will continue to maximize available Official Development Assistance due to its favorable borrowing terms up until the country reaches upper-middle-income status. The government will also maintain

its presence in the international bonds market to provide flexibility in its financing options and to facilitate efficient bond pricing for local borrowers with foreign currency requirements. Moreover, borrowing in the international bonds market will be diversified across various markets and in different instrument formats to attenuate supply-related escalation in borrowing costs. New instrument formats will also be explored to reach new markets and investors.

Maintain a resilient and strategic debt management

Debt management strategies will continue to ensure that the financing needs of the government and its payment obligations will be met at the lowest possible costs consistent with acceptable level of risks. The composition of public debt and external vulnerabilities will be considered in developing an optimal debt portfolio with a strategic mix of external and domestic debt. A resilient debt management program will provide a comprehensive accounting of contingent liabilities and sufficient support for the development of the domestic debt market.

To ensure that the interest burden of debt remains manageable, the government will maintain, if not improve, its high credit rating by adhering to fiscal discipline and prudent debt management.

Legislative Agenda

Table 11.2.1 presents the priority bills for the 19th Congress to ensure sound fiscal management and improve tax regime.

Table 11.2.1 Legislative Agenda to Ensure Sound Fiscal Management and Improve the Tax Regime

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Tax Policy and Administration Agenda	Digital Taxation Framework will ensure a level playing field between traditional industries and the digital economy given the expected shift to online transactions. Passive Income and Financial Intermediary Taxation will simplify the taxation of financial transactions by proposing to reduce the number of tax rates per se and the number of differential tax rates. Other tax administration measures will improve the ease of paying taxes and authorize the automatic exchange of information for tax purposes.	Department of Finance (DOF), BIR, BOC
Rationalization of the fiscal regime for extractive industries and pollution and developing an appropriate tax structure for unhealthy foods	Seeks to broaden the tax base by developing an appropriate fiscal regime for (a) both extractive and polluting industries to internalize the negative externalities they generate, protect patrimony and well-being, support green recovery, and strengthen monitoring and governance of the extractive sector through the institutionalization of Extractive Industries Transparency Initiative; and (b) unhealthy foods to discourage its consumption and encourage healthy alternatives.	DOF
Budget Reform Policy	Budget Modernization Bill seeks to institutionalize an efficient Cash Budgeting System and other key Public Financial Management reforms.	Department of Budget and Management (DBM)
Military and Uniformed Personnel (MUP) Pension Reform bill	Develop a sustainable pension system for MUPs by creating an MUP pension fund with mandatory contributions, adjustment of the indexation process, and identification of funding sources for the pension system.	DBM, Bureau of Treasury
Local Government Finance	Real Property Valuation and Assessment Reform Bill will rationalize and support the regular valuation of real properties, in accordance with internationally-accepted valuation standards. Amendment of the National Tax Allotment (NTA) formula intends to address equity issues, and vertical and horizontal fiscal imbalances between LGUs. The measure seeks for the amended NTA Formula to be based on economic, social impact, and equity considerations. LGU Income Classification Bill seeks to authorize the Secretary of Finance to set the income ranges and undertake the regular income reclassification of all provinces, cities, and municipalities once every three fiscal years. LGU Property Insurance proposes to mandate all provinces, cities, and municipalities to insure all government properties with the Government Insurance Fund. The measure will protect LGUs' fiscal position against significant losses due to property damages.	DOF, Bureau of Local Government Finance (BLGF), DBM

Results Matrix

Table 11.2.2 presents the indicators and targets during the Plan period to ensure sound fiscal management and improve tax regime. The efficient implementation of the proposed reforms will help ensure macroeconomic stability. The government's tax revenues will increase to 17.1 percent of GDP by 2028. The outstanding debt stock will settle below 60 percent by 2025. Corollarily, the utilization of the current year's budget will be maintained above 90 percent over the medium-term. Local governments will emerge stronger with the growth rates of their respective local revenues matching, if not outpacing, GDP growth.

Table 11.2.2 Results Matrix: Ensure Sound Fiscal Management and Improve the Tax Regime

INDICATOR	BASELINE (YEAR)	TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Sound Fiscal Management Ensured and Tax Regime Improved									
Outcome 1: A productive, equitable, and simple tax system established and other sources of revenues mobilized									
Tax revenue-to-gross domestic product (GDP) ratio improved (%) ^a	15.3 (Q1-Q3 2022)	14.6	14.9	15.4	15.9	16.4	17.1	BTr Cash Operations Report and Philippine Statistics Authority (PSA) National Income Accounts (NIA)	DOF
Outcome 2: An efficient and inclusive budget system implemented									
Utilization of current year's budget maintained above 90 percent (%)	52.9 (\$1 2022)	>90	>90	>90	>90	>90	>90	DBM Statement of Appropriations, Allotments, Obligations, Disbursements and Balances Report	DBM
Outcome 3: Local government finance strengthened									
Ratio of locally-sourced local government unit income to total current operating income maintained above 30 percent (%)	31.8 (\$1 2022)	>30	>30	>30	>30	>30	>30	BLGF Statement of Receipts and Expenditures	BLGF
Year-on-Year growth in social and economic service expenditures maintained at 10 percent (%)	28.8 (\$1 2022)	10	10	10	10	10	10	BLGF Statement of Receipts and Expenditures	BLGF
Outcome 4: Sustainable management of debt ensured									
Outstanding national government debt stock to GDP ratio reduced (%)	63.7 (as of Sep 2022)	60-62	57-61	56-59	54-58	50-55	48-53	BTr and PSA NIA	BTr

a/ Targets are based on the July 8, 2022 Development Budget Coordination Committee-approved Medium-Term Fiscal Program and the Concurrent Resolution No. 04 approved by Congress on September 19, 2022.

- ¹ Based on the International Institute for Management Development report, the Philippines' central bank policy ranked 18th out of 63 countries.
- ² BSP. 2017. Circular No. 980: Adoption of National Retail Payment System (NRPS) Framework. <https://rbap.org/bsp-circular-980-adoption-of-national-retail-payment-system-nrps-framework/>.
- ³ PESONet is a batch electronic fund transfer (EFT) credit payment scheme designed to be a more convenient alternative to checks and available to accountholders of BSP-supervised financial institutions participating in this automated clearing house. Payment instruction initiated by the accountholder is processed in bulk and cleared at batch intervals. Each payee will then receive the full value in their account within the same banking day, provided the payment instruction was sent within the cut-off time.
- ⁴ InstaPay is a real-time low-value EFT credit push payment scheme. It is designed to be a preferred alternative to cash and would facilitate small value payments that will be particularly useful for the purchase of retail goods and services, as well as for e-commerce.
- ⁵ PSA. 2022. Country's Digital Transactions Reached PHP 1.87 Trillion in 2021, with 9.6 percent Contribution to the Gross Domestic Product. <https://psa.gov.ph/digital-economy>.
- ⁶ Office of the President. 2022. Institutionalizing Whole-of-Government Support for the National Strategy for Financial Inclusion 2022–2028. Circular No. 97, series of 2022. City of Manila.
- ⁷ Microfinance Council of the Philippines, Inc. 2016. Social Performance Country Report. <https://microfinancecouncil.org/wp-content/uploads/2017/04/2016-Philippines-Social-Performance-Country-Report.pdf>.
- ⁸ International Monetary Fund. 2022. Philippines: Financial Sector Assessment Program—Technical Note on Macroprudential Policy Framework and Tools. <https://www.imf.org/en/Publications/CR/Issues/2022/06/02/Philippines-Financial-Sector-Assessment-Program-Technical-Note-on-Macroprudential-Policy-518572>.
- ⁹ Examples are the potential use of loan-to-value (LTV) and debt-to-income ratios, liquidity, and foreign exchange position as macroprudential tools.
- ¹⁰ Insurance Commission, Securities and Exchange Commission, and Philippine Deposit Insurance Corporation.
- ¹¹ E.g., Credit Information System of Credit Information Corporation.
- ¹² The National Payment Systems refer to all payment systems and components including instruments, services, processes, schemes, procedures, infrastructures, and participants that ensure the circulation of money or movement of funds in the Philippines.
- ¹³ Cantú, C. and Chui, M. 2020. Financial market development, monetary policy and financial stability in emerging market economies. Bank for International Settlements. <https://ideas.repec.org/h/bis/bisbpc/113-02.html>

12

**Expand and Upgrade
Infrastructure**



Expand and Upgrade Infrastructure

Enabling economic transformation builds on sustainable, resilient, integrated, and modern infrastructure systems as a solid foundation. Anchored on the long-term vision, the government will steer the nation toward a future where movement of people and goods is safely and efficiently facilitated by adequate and accessible transportation. Filipinos are empowered through cost-effective and reliable flow and exchange of information and are able to partake opportunities in the digital economy. Families have access to safe and adequate water and sanitation services; to reliable, clean, and affordable fuel and electricity; and to quality education, health, solid waste management, and other social infrastructure facilities. Communities and industries are served by green infrastructures that are not only adaptive and resilient against shocks and natural disturbances, but also contribute toward a low-carbon future.

Assessment

Annual public infrastructure spending in 2017–2021 during the administration of former President Rodrigo Roa Duterte ranged from 4.2 percent to 5.8 percent of gross domestic product (GDP), which is nearly double the average annual spending over the previous decades. Overall, however, infrastructure facilities and services remain

inadequate in terms of accessibility, quality, safety, and affordability. Moreover, the country's continuing vulnerability to climate change already threatens infrastructure provision and operation and thereby undermine significant infrastructure investments.

Connectivity

Mobility of majority of Filipinos is hampered by inadequate transportation facilities. There is a shortage in public transport supply. This is evidenced by long queues of commuters and passengers who spend long hours waiting for their rides, and, when they get one, stand inside buses or trains overcrowded with other commuters.

The Philippine rail system's capacity is inadequate to meet the ridership post-pandemic. The country has four operational rail lines with a total length of

76.9 km.¹ Meanwhile, the number of train cars increased to 978 in 2022 from 224 in 2016. New mass transit railways were also approved in the last six years, with the two largest now under construction. While a drop of 68 percent in total rail ridership was recorded from 2019 (327.68 million) to 2021 (103.79 million),² ridership increased by at least 23.45 percent from January (9.14 million) to May 2022 (11.94 million).³ Should this trend continue and as the economy opens up after the coronavirus disease (COVID-19)

pandemic, the existing rail network will not be able to accommodate the increasing demand, which rose to as high as 29.4 million monthly ridership in 2019 to the 2022 total capacity of about 31.8 million per month.⁴

Transport facilities deemed inaccessible and unsafe, especially for vulnerable groups. According to the National Council on Disability Affairs in 1982, the physical design of the rail infrastructure falls below the standards set in the 1982 Accessibility Law,⁵ and thus makes them difficult to access and use by pregnant women, parents with very young children, older people, and persons with disabilities (PWD). Stations with non-functional elevators and escalators, defective restrooms, missing signages, poor security measures such as lack of security cameras, overcrowding, and insufficient lighting in passenger set down further aggravate the risks of accidents, crime, and violence faced by commuters, especially females. Gender-based violence, sexual exploitation, abuse, and harassment and discrimination are common and possibly under-reported in public spaces including the transport sector.⁶

Shortage of road-based public transportation persists in many urban areas. Since 2003, public transport services franchising has been under a moratorium. This has not helped reduce the shortage of public transport in many cities. Besides being obsolete, most of the public transport fleet in 2022 also do not comply with modern design and emission standards. Meanwhile, the rollout of the Public Utility Vehicle Modernization Program launched in 2017 has progressed slowly since many vehicle owners found the

financial terms of the program unattractive and the funding support from the government in the form of subsidy for vehicle procurement was limited.

As of September 14, 2022, a total of 174,164,758 riders have benefitted from the Land Transportation Franchising and Regulatory Board Service Contracting Program (SCP) Phase III, versus the target of 93,000,000. While the SCP has provided a means for public transport operators and drivers to sustain their operations as more economic sectors open post-pandemic, the program does not cover the whole country and cannot be sustained given the tight fiscal space.

Use of active transportation is still not popular. The Department of Health (DOH) has issued guidelines promoting the safe use of active transport, while the Department of Public Works and Highways (DPWH) has issued an order prescribing the standards on the design of bicycle facilities along national roads.⁷ To fund the building and maintenance of bike lanes and other active transport facilities, the government allocated total of PHP3 billion from 2020 to 2022. While there are four households that own bicycles to each household that own a car (4:1 bicycle-car ratio),⁸ only 29 percent of households use their bicycles to go around.

Road traffic fatalities are increasing in the Philippines. Road traffic accidents exact a heavy toll. Approximately 12,000 Filipinos die on the road each year, while the resulting injuries cost about 2.6 percent of the country's GDP in 2018.⁹ The government does not have a yearly budget allocation for road safety.

While progress has been made in maritime transportation, issues on infrastructure quality remain. Improvements were pursued with the opening of the Matnog, Sorsogon to Bogu City, Cebu roll-on/roll-off (RORO) route, and the issuance of the revised rules in the grant of missionary route status for RORO passenger ships, and the development of the Maritime Route Rationalization and Information System.¹⁰ Nonetheless, only a limited number of RORO vessels can be accommodated under the size of the country's RORO ports in 2022. RORO vessels that serve medium-sized ports are smaller compared to RORO ships that use the Port of Manila. The fleet of inter-island ferries is also aging, posing safety risks to commuters.

Little progress has been made to improve airport infrastructure. The country has a total of 90 airports in operation—comprising 11 international, 41 domestic, 38 community—and 3 airports not in operation in 2022. However, not all the country's international airports and principal Class 1 and principal Class 2 airports comply with modern safety design thresholds, particularly the minimum runway strip threshold width and night landing capabilities. Proposed improvements to major gateways in the country were put on hold and are being re-assessed to consider new projections in aviation demand. Travel limitations, lockdowns, and hampered business operations due to the COVID-19 pandemic caused the decline in passenger traffic by 33.47 percent from 2020 to 2021. Over the same period, air traffic movement likewise decreased by 54.7 percent.

Civil works and utilities installation along roads are not coordinated. Road widening activities are not in sync with the relocation of electrical and communication poles, as well as pipe laying and other waterworks, causing traffic jams, road accidents, and other roadside friction. Prevalence of overhead electrical and telecommunications cables and poles along major thoroughfares poses hazards to road users. Meanwhile, the lack of coordination between road works and waterworks results in prolonged or repeated closure of roads and higher construction costs.

There are no operational cargo and/or freight rail services in the country. The movement of goods over land is limited to road-based transportation options; rail-based transportation options are non-existent. As such, long-, medium-, and short-distance shipping by land is done by trucks, which adds to road traffic congestion and to logistics cost. The roads leading to ports and airports often experience congestion and deteriorate faster due to heavy truck loads.

Port and ancillary facilities are insufficient and underdeveloped. As of December 2021, about 336.56 million metric tons (MMT) of cargo was transported through the country's port system compared to 133.74 MMT through airports. Meanwhile, 99.98 percent of the total domestic trade in 2021 was transported by sea, and the rest (0.02%) via air.¹¹

Despite the maritime sector's critical role in the transport of goods, most of the country's ports are operated inefficiently due to their inadequate equipment and ancillary facilities.

Such inefficiency is evident in the long queues of cargo trucks at port areas. Cargo trucks sometimes wait for days before they are able to board a RORO vessel. Such delays result in poor reliability in the delivery cargoes and spoilage of perishable goods, further straining the food supply chain, among others.

Government-operated ports, especially those of local government units (LGUs), have insufficient cargo-handling equipment. Existing LGU-operated ports have limited financial resources to procure the necessary equipment and support infrastructure such as cold chain facilities, leading to increased logistics costs.

Automated logistics processes are not yet integrated. To upgrade the country's logistics network, Unified Logistics Pass (ULP) was launched in 2022 that features a quick response (QR) code issued to cargo trucks. This ensures unhampered movement of goods and eliminates the various permits, licenses, and pass-through stickers being required by economic zones, ports, and LGUs. In addition, a single Transport Accreditation Permit and Pass for Ports (TAPPP) is being implemented in all ports under the jurisdiction of the Philippine Ports Authority (PPA). While these initiatives have already been introduced and implemented, their application is not yet integrated well in port operations across the country. Thus, trucks operating in both PPA and non-PPA ports, such as those in the economic zones, need to have the two systems installed. This translates into additional overhead cost that could have been avoided in an integrated system.

Movement of information through digital infrastructure steadily improved, but still not enough. Driven by increasing demand of Filipinos to stay informed and connected, recent years saw steady improvement in the quality of internet services with broadband speed,¹² reaching 78.69 megabits per second (Mbps) in September 2022¹³ (from 4.3 Mbps in 2016). In this aspect, however, the Philippines consistently lags behind Singapore, Thailand, Malaysia, and Vietnam. Moreover, the domestic prices of fixed and mobile broadband prices¹⁴ remained high, at 11.56 percent and 2.04 percent of monthly gross national income per capita, respectively. Both rates are above the global affordability threshold target (of below 2%). As evidence of the persistent digital divide, only about 18 percent of Filipino households have internet connections,¹⁵ far below the average household penetration rate of 53.4 percent in the Asia-Pacific region in 2019.¹⁶

Climate change is not systematically integrated in planning, design, operation, and maintenance. Climate change does not only adversely affect connectivity, but also places a strain on the country's economy. The resulting economic losses could be massive and would require significant additional financing to rehabilitate the damaged infrastructures. Due to Typhoon Odette in 2021, 36 percent of seaports were rendered inoperational, creating logistics challenges and disruptions in supply chains, especially for isolated islands. In addition, some municipalities had limited access to communication services for six weeks, which further hampered disaster relief and recovery operations.

Water Resources

The country has limited water resources. The annual freshwater potential of the Philippines is estimated to be about 146.0 billion cubic meters (m³), of which roughly 125.8 billion m³ is surface water and 20.2 billion m³ is groundwater. Based on the water permits issued by the National Water Resources Board, about 86 billion m³ (or 58% of the total freshwater available) is allocated annually for various uses, whereby about 7.6 billion m³ (5.6 billion m³ from surface water and 2.0 billion m³ from groundwater sources) is used for domestic and municipal water use.

Universal access to safe, affordable, and sustainable water supply and sanitation services has yet to be achieved. Based on the 2020 Annual Poverty Indicators Survey of the Philippine Statistics Authority, the main sources of water supply for Filipino families were water piped into their dwelling (54.1%), sourced from protected wells (21.5%), communal sources such as public taps, and developed springs (16.0%). Less than 10 percent of them rely on “unsafe sources” such as unprotected wells, undeveloped springs, rivers, ponds, lakes or rainwater, or bought from tanker trucks and/or water peddlers.

In terms of access to sanitation facilities, about 80.4 percent of Filipino families had “basic sanitation service level” (i.e., used an improved sanitation facility not shared with another households), 13.5 percent had “limited-service level” (i.e., used an improved sanitation facility shared with two or more households). Less than 10 percent had no

sanitation facility (i.e., practicing open defecation), or use “unimproved service level” (i.e., used pit latrines without a slab or platform, hanging latrines, or bucket latrines).

Irrigation service provision remains inefficient and wasteful. National irrigation systems (NIS) use about 68 billion m³ of water annually (about 80 percent of the country’s annual available freshwater) to irrigate around 1.9 million hectares (ha) of farms (mostly planted with rice). In comparison, only around 52 billion m³ annually on average is used in other countries to irrigate the same area and crop type (for two cropping seasons per year). This suggests that about 25 percent of the water delivered by the NIS is wasted, that can be otherwise saved with proper management.

The country is highly vulnerable to water-related hazards. In a typical year, the Philippines experiences about 20 typhoons, of which eight make landfall and often hit several regions. Major typhoons such as Odette (international name: Rai) in 2021 and Ompong (international name: Mangkhut) in 2018, to name a few, have devastated the country. These two typhoons led to 487 fatalities, about PHP63.6 billion in damages to infrastructure, and PHP44.4 billion in damages to agriculture. Besides typhoons, monsoon rains, the inter-tropical convergent zones, and severe thunderstorms also visit and leave damages in the country.

Energy

Affordability, accessibility, and reliability are the three aspects of energy security.

The Philippines, historically, has one of the highest electricity prices¹⁷ in the Asian region (See Table 12.1). Consequently, the country fails to attract foreign direct investment (FDI), especially energy-intensive FDI—one reason domestic manufacturing growth has lagged in recent decades relative to its neighbors. A previous study¹⁸ shows that high electricity prices are one of the contributory factors why the economic transformation of the Philippines did not follow the usual development patterns seen in high-income countries.¹⁹

As a net importer of energy, the Philippines is highly susceptible to volatility in the prices of fuel in the international market. Any major event affecting the value chain of fuels, such as the attack on two Saudi Aramco oil facilities in 2019 and the Russia–Ukraine war, impacted domestic prices. The continuing escalation of fossil fuel

prices in 2021 and 2022 increased the risk of fossil power plants becoming stranded assets.

Power supply is limited and per capita consumption is low. Comparing key economic and energy indicators in select economies²⁰ reveals that the Philippines has limited power supply and low per capita consumption (See Table 12.1). Electricity consumption per capita in the Philippines is the lowest compared to the other countries in the Association of Southeast Asian Nations (ASEAN). The lower electrification rates and high prices in the Philippines partly explain the low per capita consumption. As of 2019, the Philippines had a 26.2 gigawatt (GW) capacity serving 111 million Filipinos. In comparison, Thailand, Malaysia, and Singapore each has large power capacities serving smaller populations than the Philippines. Transmission and distribution losses have also been relatively high (9.4% of the total electricity output), suggesting an inefficient grid and distribution system.

Table 12.1 Key Economic and Energy Indicators in Select Countries

	Per capita electricity generation (MWh/cap), 2020	Per capita electricity consumption (MWh/cap), 2019	Net installed electricity capacity (GW), 2019	Share of renewables in electricity production* (%), 2020	Population (million), 2021	Per capita GDP (constant 2015 USD), 2021	Electricity transmission and distribution losses** (% of output), 2014	Residential Electricity Prices (USc/kWh), Dec 2021
Philippines	0.88	0.90	26.2	23.5	111.0	3,412.6	9.4	16.3
Indonesia	1.00	1.00	66.8	13.2	276.4	3,855.8	9.4	9.6
Thailand	2.53	2.90	45.3	14.8	70.0	6,270.4	6.1	10.4
Malaysia	4.69	5.10	34.2	12.2	32.8	10,827.3	5.8	5.00
Singapore	8.60	9.50	12.6	2.0	5.5	66,176.4	2.0	18.3
China	5.37	5.10	2,064.7	28.3	1,412.4	11,188.3	5.5	8.1
Japan	7.44	7.90	346.5	24.6	125.7	35,278.4	4.3	32.6
South Korea	10.75	10.90	132.1	8.9	51.7	32,644.7	3.3	10.0
New Zealand	9.28	8.40	9.4	78.8	5.1	40,779.0	6.5	18.6

GDP = gross domestic product, GW = gigawatt, MWh/cap = megawatt-hour per capita.

* Renewables include electricity production from hydropower, solar, wind, biomass and waste, geothermal, wave, and tidal sources.

** Electric power transmission and distribution losses include losses in transmission between sources of supply and points of distribution and in the distribution to consumers, including pilferage.

Notes: Per capita electricity generation from Our World in Data; per capita electricity consumption are from International Energy Agency; and net installed electricity capacity are from United Nations Statistics Division. Population data, per capita GDP, and electricity transmission and distribution losses are from World Development Indicators. Residential electricity prices are from Global Petrol Prices.

Sources: Our World in Data. <https://ourworldindata.org>; International Energy Agency. <https://www.iea.org>; United Nations Data. <http://data.un.org>; UN Statistics Division. <https://unstats.un.org>; World Development Indicators. <https://data.worldbank.org>; Global Petrol Prices; <https://www.globalpetrolprices.com>

Shocks brought changes in supply and demand patterns. Electricity consumption dropped during the lockdown at the height of the COVID-19 pandemic. Coal generation fell dramatically. Power generation from natural gas plants decreased, but its percentage share in terms of total generation increased. The generation of other sources stayed at about the same levels prior to the pandemic, with solar and biomass generation growing slightly.²¹ The indigenous Malampaya gas generates a third of the electricity in Luzon. With its impending depletion and absence of an indigenous replacement, there is an aggressive push to develop the liquefied natural gas (LNG) industry. Two of the six projects approved by the Department of Energy (DOE)²² are expected to supply the requirements of the existing anchor markets of Malampaya.

The frequent forced and unplanned outages of power plants resulted in supply deficiency that disrupted business operations.

Restrictions on foreign ownership of inexhaustible energy projects have been relaxed. The Implementing Rules and Regulations (IRR) of the Renewable Energy Act of 2008 restricts the exploration, development, and utilization of renewable energy (RE) resources to companies or corporations that are at least 60-percent owned by Filipino citizens, following the provisions of Article XII of the Constitution.

Nonetheless, the Department of Justice recently released a legal opinion exempting inexhaustible RE sources from 60:40 foreign equity/ownership restriction. On November 15, 2022, Department Circular

No. 2022-11-0034 was issued allowing 100 percent foreign ownership of RE projects where applicable. This move is aimed at achieving the government's target to increase the share of RE in the power generation mix to 35 percent by 2030 and 50 percent by 2040.

Grid congestion continues to hamper the reliability of the energy supply. The modernization of the grid to accommodate more renewable energy is moving at a slow pace. Right-of-way issues exacerbate the problems and delays in completing transmission projects. There is also continuing threat to the resiliency of the grid due to disasters, both natural and man-made. With insufficient level of ancillary services that helps maintain the proper flow and direction of electricity and address imbalances between supply and demand, the problems on reliability of energy supply continue to persist. The national grid remains fragmented with the delayed implementation of the Mindanao–Visayas Interconnection.

Total electrification is yet to be achieved. As of 2021, 5 percent of Filipino households still live without electricity, bereft of the benefits including increased welfare and productivity, education, and improved indoor air quality.²³ Majority of these unenergized households are located in Abra, Albay, Masbate, Basilan, Sulu, Tawi-Tawi, and Lanao Del Sur, and are being catered by ailing and problematic electric cooperatives (ECs). Nonetheless, as electricity access is viewed a tool to uplift the lives of Filipinos, the government issued Executive Order (EO) No. 156 series of 2021 and Republic Act (RA) 11646 or the Microgrid Systems Act.

Many ECs are ailing financially. Outside of the Meralco franchise area, electricity is mainly supplied by ECs. Most ECs face management issues, such as lack of long-term power supply agreement, high incidence of power pilferages, unreliable distribution system (due to obsolete, aged or dilapidated distribution facilities), and inability of customers to pay. Some ECs charge lower rates than private distribution utilities, but more brownouts and low-voltage episodes attend their power supply.²⁴ To avoid unreliable power supply, firms that can potentially provide jobs and contribute to rural development choose to locate instead in areas served by private distribution utilities.

Social Infrastructure

The health system is characterized by an inadequate and inequitable access to health facilities. While the country has a total capacity of 109,346 hospital beds in 2021, this translates to about one bed only per 1,000 population. As of October 2021, only 68 percent of barangays are covered by a rural health unit and health center as opposed to DOH's target of 80 percent. As reported in the Philippine Health Facility Development Plan (PHFDP) 2020–2040, only 50 percent of Filipinos in 2020 have access to frontline health facilities, i.e., within 30 minutes of travel time.

There are lingering inefficiencies still in the implementation of the Health Facilities Enhancement Program (HFEP), wherein unutilized, unimplemented, and improperly executed contracts have been identified as a source of wastage in the use of funds, per a

Consequently, the failure to attract more investments that would increase demand in their services areas, in turn, contributes to the low financial viability of these ECs.

Delays in the processing and approval of energy projects unnecessarily increased the cost of doing business. Processing and approval of energy projects takes an average of 1,876 calendar days with 359 signatories from 74 agencies required. The enactment of RA No. 11234 established the Energy Virtual One-Stop Shop System to streamline the permitting processes for new power generation, transmission, or distribution projects.

2021 report from the Commission on Audit.²⁵ Project implementation was also sidelined at the height of the pandemic in 2020 and 2021 when temporary treatment and monitoring facilities and other COVID-19-related health facilities (e.g., isolation and quarantine facilities) were prioritized over frontline facilities.²⁶ In addition, climate-related events have also negatively affected the health sector. For instance, during Typhoon Odette in 2021, 210 health facilities were destroyed while the resulting water shortage increased the risks of disease outbreaks.

Meanwhile, inadequacies in infrastructure support continue to hamper the attainment of the goals in the education sector. As of August 2022, there is still a shortage of around 91,000 classrooms, which is about 10 percent of the total needed classrooms.²⁷ There are still 2,298 “Last Mile Schools”

in remote or marginalized areas with substandard and/or inadequate facilities and services.²⁸

The outbreak of the COVID-19 pandemic only exposed the insufficiency of infrastructure investment in the sector, particularly in information and communications technology (ICT) support for learners, which made distance or blended-learning more difficult for them. As of 2021, only about 80 percent of schools have functional computers while 65 to 70 percent have stable internet access.²⁹

Nevertheless, there have been some gains in the provision of other basic facilities.

For instance, 92 percent of public schools have access to electricity in 2021. Meanwhile, in terms of water, sanitation, and hygiene facilities, the ideal ratios for all levels of basic education were achieved in 2021. The ratio for the primary levels (K to 6) of 1:25 surpassed the target of 1:30. Meanwhile, at 1:39 for junior high school level and 1:35 for senior high school level, both ratios have already met their common ideal ratio of 1:40.

Damages to or suboptimal use of classrooms caused significant disruptions in classes. From 2015 to 2020, the Department of Education (DepEd) reported 10,675 schools as heavily damaged by natural disasters (e.g., tropical cyclones, earthquakes). Meanwhile, 35,648 classrooms in 11,522 schools in the country have been used as temporary evacuation centers, thus displacing or suspending the usual teaching or learning activities in them.³⁰

Solid waste continues to be a significant environmental issue.

In 2020, the estimated volume of waste generated was close to 17 MMT, with almost a third of the materials coming from Metro Manila. Only 39 percent of all barangays are served by material recovery facilities (MRF), and only 29 percent by sanitary landfill facilities (SLF).³¹ Solid waste diversion (i.e., recycling, composting) remained low at 54 percent as of 2021.

The National Solid Waste Management Commission (NSWMC) passed a resolution adopting Total Solid Waste Management Solution that will maximize waste diversion and optimize use of waste disposal sites. Nonetheless, diversion of plastic waste has been very low at nine percent with only 489 LGUs adopting ordinances to regulate single use plastics.

The Department of Environment and Natural Resources (DENR) has issued guidelines governing waste-to-energy (WtE) facilities for the Integrated Management of Municipal Solid Wastes. Likewise, DOE has issued policies and implemented programs that aim to promote WtE facilities as baseload RE and prescribed policies and programs to enhance the participation of the electric power industry players in the development of WtE facilities.³²

Challenges

Infrastructure is critical in the economic transformation of the country. The provision of adequate, quality, sustainable, resilient, and safe infrastructure will require well-coordinated, huge investments not only for new constructions, expansions and improvements, but also for adequate

maintenance and rehabilitation. Thus, the major challenges for the sector include financing of investments, coordination of plans and programs across agencies and across levels of government, and ensuring asset preservation and resiliency.

Connectivity

The implementation of the National Transport Policy is difficult without a National Master Plan and sufficient data. Due to limited transport-related data and guidelines for data collection and management, most of the existing demand data do not reflect evolving travel patterns under new normal conditions. Transport demand surveys and master plans are not regularly undertaken or updated, and usually done only when assistance from development partners is available.

Public high-capacity transportation is unable to meet current and future demand. Mass transportation supply in the form of modern public utility vehicles (PUVs), busways, railways, and ferry systems is still inadequate. As a result, the use of lower-capacity transport modes like private vehicles is still prevalent and contributes to worsening traffic congestion, especially in highly urbanized cities. Transit stations and intermodal interchanges lack service standards and remain inconvenient, uncomfortable, and inefficient. Poor last-mile connectivity also discourages private motorists from shifting to public mass transportation.

Active transport will remain nonviable for commuters without adequate infrastructure and support facilities. Although most Filipinos are not car owners, for them active transport is still a nonviable commute option. For one, support facilities (e.g., bike storage and parking, shower facilities, and lockers) are insufficient. Moreover, transport corridors are designed to serve private motorists, are non-climate-responsive and unsafe (e.g., with poor lighting, uneven pavement, road hazards, and potholes), and lack separate lanes for active transport.

Pursuing or expanding the current PUV Service Contracting Program requires appropriate balancing between enhancing service standards and fiscal sustainability. Implementation of innovative transport schemes such as service contracting first introduced in Metro Manila have yet to be replicated in other parts of the country. Meanwhile, most transport operators and drivers remain strapped financially since they are mandated to keep fares affordable despite high inflation and rising fuel costs. Extending them coverage under the service contracting scheme however will require huge fiscal

resources, which may not be sustainable, and therefore needs to be carefully considered.

Air traffic congestion is likely to persist, if not worsen, without the needed investments in developing, upgrading, and improving airports. Airport capacities in 2022 will be inadequate to cater to domestic and international aviation demand, which is expected to recover by 2025. Aggravating the congestion in many domestic airports is their lack of night landing capabilities. Meanwhile, the expansion of some existing airports may not be technically and/or financially feasible.

Achieving universally accessible and gender-responsive transport facility designs need a shift in construction priorities and practices, and in carrying out coordination and advocacy. Although there have been many laws and regulations that require transport facilities to be accessible for people with special mobility needs, compliance has been incomplete due to minimal investments in past decades. The physical designs of various infrastructure do not conform to the standards of the Accessibility Law, which is supposed to ease the access to and use of such facilities by those with special needs. Addressing the needs of pedestrians, cyclists, PWDs, and public transport users by modifying the priorities and changing existing policies of road projects by national and local agencies are the major challenges. Despite the enactment of the Safe Spaces Act and other laws, efforts have been weak and uncoordinated in addressing gender-based violence-sexual exploitation, abuse and harassment, and discrimination in public spaces, especially in the transport sector.

Ensuring travel safety on road transport corridors while aiming to increase travel speeds poses a challenge. Travelling along existing primary national roads could be slower than 30 kilometers per hour when passing through an urban area with over 100,000 people. Adding to the travel delays and hazards faced by road users, if not addressed, are the slow-moving vehicles plying along the national roads; uncontrolled PUV loading and unloading in road intersections; faulty traffic signals; illegally parked vehicles; on-going construction, maintenance, and water works; electric and telecommunication poles erected in roadside kerbs; and ambulant vendors plying their trade along carriageways.

Low-quality infrastructure, inconsistent regulations, and inefficient operations lead to high logistics cost. The Philippines has one of the highest logistics costs and rates of congestion among ASEAN member-states.³³ This is largely due to low-quality infrastructure, inconsistent regulations, and inefficient operations. Flow of goods to and from ports is limited by low on-site capacity for container storage and management. Funding to modernize and equip government-operated ports and LGU-operated ports is inadequate. Intermodal transport facilities must be prioritized to move goods effectively and efficiently. However, there are only a few inland container terminals, and none of them is connected to the port by freight rail.

Transport corridors supporting airports and ports will continue to impede movement of goods if not upgraded. Movement of goods and services from

gateways and production areas to markets is currently limited to road-based transportation options. However, the roads leading to ports and airports are often congested and deteriorate faster due to heavy truck loads. Moreover, lack of coordination among government entities results in non-uniform and fragmented regulations such as truck ban policies and pass-through requirements. Addressing these issues and pursuing the plans to establish long-haul freight rail and waterway transport lines will speed up the transport of goods across the country.

Water Resources

Effective management of the country's water resources is faced with numerous challenges. These include the multiplicity of water-related agencies without a clear and/or unified objective, increasing hydrologic variability and irregularity under a changing climate, the inadequacy of water-related information, the poor planning and financing of infrastructure, the unaddressed competing and changing priorities of water infrastructure uses, and the inefficient water utilization and delivery of irrigation systems.

The weak and fragmented institutional set-up continues to be a fundamental hindrance in the sector. As of 2021, there are over 30 water-related agencies with overlapping and at times conflicting mandates or functions over the country's water resources. The lack of coordination between said government agencies and the varied users of the resource results

The disparity in access to and high costs of digital services in the country indicate inadequate investments in digital infrastructure. The outdated laws and existing regulatory regime are ineffective in addressing high entry barriers in the digital services market, thereby limiting competition among service providers, affecting broadband prices, and restricting investments for infrastructure buildup and expansion, especially in geographically isolated and disadvantaged areas (GIDAs). A segment of Filipino population (including PWDs) also remains digitally excluded with the existing digital services not designed to cater to their special needs.

in unintegrated or siloed planning and policy making, characterized by subsector-, program-, or project-specific government interventions in water supply, sewerage and sanitation provision, irrigation delivery, flood management, watershed management, and coastal management, without proper regard for the other uses of the resource. Water decisions and financing priorities are often made according to political jurisdictions and influences without due regard for hydrologic boundaries such as river basin or aquifer boundaries as planning or management units. Said fragmentation issue is further aggravated when comprehensive land use plans are divorced or unharmonized from water use and resource plans.

Hydrologic variability and erracity further complicates water resources management and planning. The increase in hydrologic variability (i.e., large fluctuations of seasonal

rainfall or extreme weather events) as an impact of climate change is another major challenge to the sector. Extreme weather events such as intense rainfall (resulting in floods), strong winds and typhoons (resulting in storm surges), and prolonged hot seasons (resulting in droughts and decreased agricultural productivity) have become more frequent in recent years. Weather patterns fluctuate over time and vary widely in different parts of the country, thus requiring location-specific flood and drought mitigation schemes, as well as water infrastructures that are adaptable to changing climate conditions. Climate change effects on the water cycle will continue to strain built infrastructures through increased evaporation, salinization, and physical damages. These will not only affect service provision efficiency, but also incur recovery costs, economic losses, and societal impacts.

Water-related data collection remains inadequate. The inability of the government to properly assess the state of water resources in the country is due to insufficient and scant water-related data collection, in as far as time-space sampling frequency and consideration of climate projections on water cycle are concerned. For instance, the DPWH's Bureau of Design only has a total of 249 streamflow gaging stations all over the country. Groundwater data is also scarce and generally collected either on project basis or during the conduct of well development pumping tests for one-time water permit applications. There are no proper management or surveillance techniques to detect users that extract surface water or groundwater excessively. The impacts of watershed degradation especially by

deforestation, which results in excessive soil erosion and reduced water infiltration, are not properly monitored.

Poor water infrastructure planning, financing, and management persists. The absence of an updated and comprehensive inventory of all water-related infrastructure (e.g., water supply, irrigation facilities, and flood control infrastructures) hinders the facilitation of a harmonized rehabilitation and maintenance program, leading to the unmanaged deterioration of many water-related infrastructures. Said challenge is exacerbated by the inadequate financial and technical capacities of institutions in planning and implementing water related infrastructure projects.

Competing and changing priorities of water infrastructures remain unaddressed. A challenge in multi-purpose water infrastructures is the competing priorities of the different water users involved with its operations. For example, when a dam's design is built for the purposes of water supply, irrigation, and hydropower, the reduced irrigation water allocation due to the conversion of agricultural areas to residential, commercial, and industrial areas, results in the under-utilization and reduced power generation of its hydropower plant. Likewise, a multipurpose reservoir with water supply as its primary purpose will prioritize conserving water for the dry season by accumulating water during the wet season, and yet its flood control function would require ensuring available reservoir capacity for flood allocation storage by releasing water before the expected heavy rainfall.

Existing irrigation infrastructure facilities require significant overhaul or redesign.

The use of open irrigation ditches or canals is prone to leakage due to damages during the

typhoon season. Likewise, open canals are susceptible to sedimentation, thus, reducing the canal's capacities resulting in water spillage and slow water conveyance.

Energy

The challenges in the sector are making energy more secure and cost-competitive, achieving an optimal energy mix and adequate energy supply, and ensuring efficient delivery of electricity and judicious use of energy. With *AmBisyon Natin 2040*, electricity consumption was projected to grow to nearly four times its 2019 level by 2040. While the implementation of the Electric Vehicle Industry Development Act is desirable for low-carbon growth, the switch to electric vehicles is expected to increase electricity demand. Thus, there is an urgent need for

a replacement to the depleting Malampaya gas to avoid supply shortage. Mandatory and preferential dispatch of RE³⁴ is expected to boost RE investments; however, such policy must not conflict with the objective of reducing energy costs. Likewise, cushioning the impact on low-income households of rising energy prices brought about by the continuing disruption in the global value chain is also an immediate challenge. Achieving energy security likewise requires resiliency against climate-related events that cause power disruptions.

Social Infrastructure

The state of the Philippine health infrastructure has to catch up with globally accepted standards. The country's public spending on health is at 1.69 percent of GDP (in 2019), which is among the lowest in the ASEAN³⁵ and is very far from the 4–6 percent of GDP level of spending needed to attain universal health coverage.³⁶ The country's health system remains hospital-centric. Hospital care accounted for 50 percent of total health spending in 2018. Primary care accounted for only 4 percent in same year.³⁷ Corollary to this, average bed density in the Philippines is way below the four beds per 1,000 population recommended for an upper-middle income country.

As proven during the COVID-19 pandemic and in times of natural disasters, the health infrastructure is still not ready to respond to public health emergencies. In addition to the continued provision of essential services, capacities for basic epidemiology and disease surveillance, especially at the subnational level, need to be enhanced.

While the PHFDP 2020–2040 was formulated to guide the equitable development of the country's health infrastructure, its implementation is challenged by uncoordinated planning and lack of sustained financing, causing substantial delays and inadvertently constrains the public's access to health care.

Poor implementation and disasters resulted in the weak delivery and inefficient use of education facilities. Disbursement of the Basic Education Facilities Fund remains low with an average rate of 48.4 percent from 2017 to 2021.³⁸ This resulted in the actual delivery of only 44 percent of the targeted classrooms from 2018 to 2021.³⁹ Among the problems encountered in the implementation of school infrastructure projects include site unavailability, rigid pricing and specifications, procurement issues, and delayed identification of project list.⁴⁰

As the country is highly vulnerable to natural disasters, the lack of infrastructure dedicated for disaster and calamity preparedness and resilience will continue to exacerbate the inadequacy of classrooms, which are used as temporary evacuation centers.

Solid waste management (SWM) facilities remain inadequate to cope with the increasing rate of waste generation, especially in urban areas. Majority of local areas are still unserved by common waste facilities, including material recovery facilities and by sanitary landfill facilities. The sector continues to be hampered by the following challenges, among others:

- a) lack of updated data on sources and composition of waste;
- b) lack of clear policy direction on clustering of LGUs;
- c) lack of technical and financial capacities of LGUs in implementing solid waste management projects;
- d) low willingness of LGU constituents to pay for SWM services;
- e) availability, suitability, and social acceptability issues in site selection for common waste disposal facilities; and
- f) limited segregation-at-source due to low awareness on waste recycling, recovery, and composting technologies.

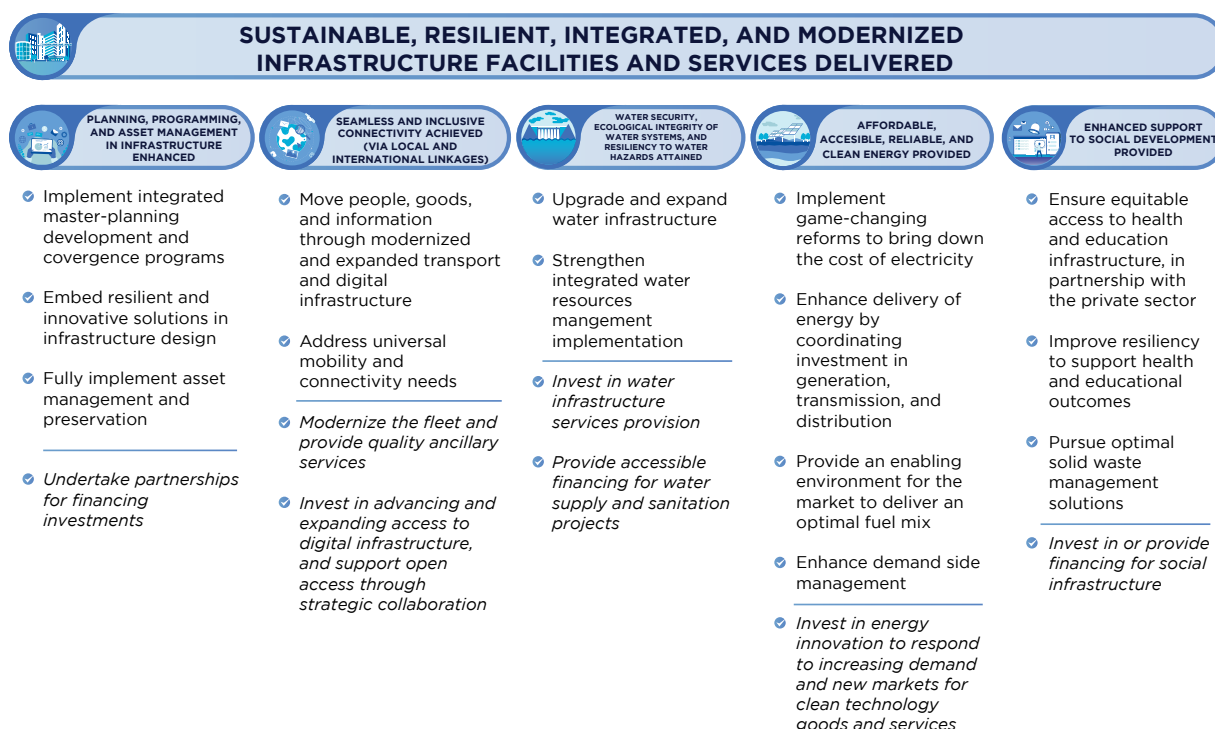
Strategy Framework

To enable economic transformation for a prosperous, inclusive, and resilient society, the overarching objective for the infrastructure sector over the medium term is to “Build Better More.”

The strategic framework for Chapter 12 (Figure 12.1) is geared toward the delivery

of sustainable, resilient, integrated, and modern infrastructure systems. It comprises cross-cutting strategies and specific strategies corresponding to each of the infrastructure subsectors: connectivity (physical and digital), water resources, energy, and social infrastructure.

Figure 12.1 Strategy Framework to Expand and Upgrade Infrastructure



Strategies

Outcome 1: Planning, programming, and asset management in infrastructure enhanced

Implement integrated master-planning development and convergence programs

As master plans provide a sound basis for rational prioritization and a holistic approach to socioeconomic development, master plan formulation for infrastructure will be harmonized and strategically integrated to guide the planning, programming, budgeting, and implementation of infrastructure projects. The different government master planning processes will be enhanced and rationalized to ensure that master plans are coordinated across all government levels, and remain synergistic, responsive to the emerging issues, and consistent with priority development strategies of the sector.

Moreover, the government will continue to implement convergence programs to ensure complementarity of efforts in the roll out of infrastructure identified in sectoral or spatial master plans.

Over a reasonable transition period, the responsibilities for local infrastructure planning and development will be fully devolved to local governments. Capacities of local governments to assume the responsibility and accountability for infrastructure outcomes within their jurisdictions will be built.

Embed resilient and innovative solutions in infrastructure design

The Philippines is highly vulnerable to climate change and natural disasters. For this reason, mainstreaming resiliency and sustainability considerations in the present infrastructure planning and investment is imperative to withstand future economic shocks and to reduce additional costs and financial burdens caused by climate change and natural disasters. Enhancing the resilience of infrastructure to the impacts of climate-related extreme events can also protect lives and human health, as well as help sustain economic growth.

Resilient infrastructure will ensure continuous service delivery and extend the useful life of assets. Climate resilience will be mainstreamed in infrastructure planning and investment so that climate risks are considered and managed across all types of infrastructure and throughout the lifecycle of infrastructure assets and operations. Moreover, innovative technologies, including nature-based solutions (NBS), will be employed in infrastructure planning and design.

Fully implement asset management and preservation

To ensure the cost-effective management of assets, the government will analyze the lifecycle, capacity, and utilization of infrastructure assets individually and

collectively, with the view to optimizing government funds and targeting scarce resources to the most critical asset needs. The government will ensure that infrastructure assets will be efficiently and effectively maintained and rehabilitated, as necessary, to maximize their economic life.

Undertake strategic partnerships for financing investments

Annual public infrastructure spending in 2017–2021 ranged from 4.2 percent to 5.8 percent of GDP, which is about twice as much as the average spending over the previous five decades. Over the next Plan implementation period, annual spending on infrastructure will be sustained at 5 percent to 6 percent of GDP. In line with this, the government will continue to tap viable funding mechanisms to augment the public resources in financing critical infrastructure projects.

By leveraging the private sector's efficiency, resources, expertise, and innovativeness, the government can reinvigorate PPPs in financing priority infrastructure projects. This will ensure the sustainability of operations of infrastructure facilities and free up fiscal space for other social programs and development priorities. While reinvigorating PPPs, the government will clarify allocation of responsibilities to integrate climate risks in planning, management, or operation of infrastructure. To attract additional private investors, the government will develop projects and promote infrastructure plans with prospects of good financial returns.

The government will continue to strategically engage multilateral and bilateral development partners for external financing to capitalize on their comparative advantages and benefit from knowledge and technology transfers.

To ensure that the increase of available financial resources of LGUs pursuant to the Mandanas-Garcia ruling contributes maximally to socioeconomic development, the national government will assist LGUs by providing technical assistance and setting service delivery standards. Together with LGUs, the national government will explore appropriate cost-sharing arrangements in the implementation of devolved infrastructure projects. LGU capacity to prepare and structure PPPs will also be improved.

Connectivity

Outcome 2: Seamless and inclusive connectivity via local and international linkages achieved

Move people, goods and information through modernized and expanded transport and digital infrastructure, with active participation of the private sector

A National Transportation Master Plan will be formulated and adopted. The National Transportation Master Plan, which will integrate land use and urban planning methodologies (e.g., transit-oriented development, township approach, and high-density development), will guide the rational development of an intermodal transport infrastructure network that takes into consideration compatibility, economic feasibility, comparative advantages, climate risks, and linkages of desired transportation modes. Baseline data and information will be regularly collected, updated, consolidated, and managed.

Intermodal transport facilities will be constructed and upgraded to achieve seamless connectivity. Rationalizing intermodal linkages and hubs will provide order in passenger movement and decrease traffic congestion inside urban centers and across regions. Trains and buses shall serve medium- and long-distance travel demands. Last mile connectivity through active transport shall be enhanced to improve access to transit stations and encourage mass transportation usage.

Design standards for transit stations and interchanges shall be adopted with emphasis

on convenient transfers, high levels of service, universal accessibility, gender inclusivity, and sustainability. The standards and regulation for a national automated fare collection system shall be adopted to establish interoperability across all transport modes.

Active transport networks will be developed. Pedestrians and cyclists will be accorded highest priority in the hierarchy of road users. Provisions for active mobility will be integrated into the transportation system. Existing thoroughfares and bridges will be redesigned and retrofitted for the protection and expansion of bikers and pedestrians. Shade trees will be planted in urban areas to lessen the urban heat island effect, improve climate resiliency, and improve biodiversity. Ancillary infrastructure such as segregated active mobility corridors, showers, widened sidewalks, lockers, and storage facilities will be constructed.

Safe and well-connected active mobility networks will be established. This will involve, among others, widening of sidewalks; adding segregated micro-mobility corridors; developing greenways, car-free zones and bike-only roads, and other public open spaces; redesigning and reconstructing existing intersections; and re-evaluating interchanges and grade separators to accommodate at-grade pedestrian crossings and bike turning spaces.

Local government units and private developers will be incentivized to have pedestrian-friendly and bikeable developments and programs. LGUs will also be encouraged to measure walk scores, walkability, bikeability, and accessibility within their jurisdictions.

Applicable mass transportation systems (i.e., railways, road-based, and ferry systems) will be developed in metropolitan areas. Mass transportation systems will be prioritized. The roll-out of the planned rail infrastructure projects will be pursued aggressively. Railways will be expanded from north to south and from east to west, connecting growth nodes and strategic infrastructure. Inter-city rails will be built in metropolitan regions across the country. Policies will be adopted to ensure availability of highly specialized spare parts and supplies.

Bus rapid transit systems will be adopted to enhance the efficient use of public transport vehicles and existing road spaces. Existing ferry systems will be upgraded and other coastal and inland waterways transport systems will be established as an alternative sustainable transport mode to further improve the connectivity of ports to the national transport system.

Reforms in the provision of public transport services will be strengthened. Performance- and incentive-based service plans and alternative financing arrangements will be explored. Transition of public transport operations from competition among individual operators toward industry consolidation and common fleet management

using higher capacity and environmentally sustainable vehicles will be facilitated.

The Public Utility Vehicle Modernization Program will be re-designed so that the supply of modern public transport can be increased while managing its resulting fiscal impact.

The nautical highway will be improved. Seaports will be constructed and expanded to support economic sectors such as agriculture and trade. New linkages and strategic location of new ports will be assessed to create new rural growth areas. The capacity of RORO facilities will be increased and processes digitized to address congestion and delays. Larger RORO ports will be constructed to accommodate larger-capacity RORO vessels. These will be supported with modern ancillary facilities for passengers. The application of electronic terminal management systems such as electronic ticketing and manifest submissions will be streamlined. Aging fleets will also be replaced or retrofitted to mitigate the risk of maritime accidents. Implementation of the Maritime Industry Development Plan will be continued to achieve a more sustainable and globally competitive maritime sector through maritime education, technology, and innovations.

The construction, expansion, and upgrading of roads and routes that are aligned with the nautical highway network will be pursued. The missing links in the road network will be completed and viable inter-island bridges will be constructed. Road transport corridors leading to airports and ports

will be upgraded, including installation of weighbridges to prevent overloading.

Existing airports will be improved and new ones will be strategically developed to address future demand. Existing airports will be upgraded to meet aerodrome design safety standards set by international and local airport authorities, including development and improvement of access roads. Bundling of airports as possible Public-private Partnerships (PPP) projects will be pursued to encourage private sector investments.

Gateway airports will be developed and connected to feeder airports to facilitate access to the country's various tourist destinations. Development of new airports will consider optimal sites outside urban areas to allow rooms for future expansion and possible upgrade to international airports.

Level of service standards will be adopted in all airports to quantitatively measure the adequacy of airport passenger facilities and plan for the applicable interventions. To alleviate airport traffic congestion, "night-rating" of airports will be continued.

Cargo and freight rail infrastructure to connect strategic infrastructure such as ports will be developed and expanded. Railway development for cargo and freight will be prioritized, particularly for long-distance deliveries. Meanwhile, truck routes will be established to service medium- and short-distance deliveries. Dry ports and other inland cargo terminals will be connected by freight rail to ease the movement of goods to or from the ports.

Cold chain logistics and management facilities will be developed. Government will implement cold chain logistics projects to secure the transportation throughout the supply chain of temperature-sensitive commodities and products, such as perishable food products, medical supplies, and other pharmaceutical supplies.

The implementation of the ULP and Transport Accreditation, Permit and Pass for Ports (TAPPP) will be made seamless and well-integrated. To facilitate the transport of basic goods and necessities, the ULP and TAPPP will be implemented cohesively throughout the country. This will further streamline the varying and burdensome pass-through requirements and restrictions of ports, economic zones, and LGUs, as well as promote a more business-conducive environment in the logistics sector.

Transport safety and security will be ensured. The government will ensure that transport hubs are equipped with additional safety features such as closed-circuit television, baggage scanner, proper lighting, and real-time passenger information system. The Philippine Coast Guard will pursue its modernization program involving, among others, the procurement of modern air and floating assets and interoperable communication systems. Safety audits on transport corridors will be continued to inform the allocation of sufficient budgetary support. Other potential financing sources from congestion pricing and parking levies, among others, will be explored.

Underground utility corridors for electricity and telecommunications cables, water supply, sewage, and other utilities will be established to secure public safety. Through these corridors, utility lines will be placed in accessible spaces so as to minimize traffic disruptions and other surface activities when system upgrades or repairs will be done.

Digital infrastructure will be modernized and expanded. Advancing the country's digital infrastructure entails effective government stewardship of the sector, in order to facilitate private sector investments toward modernizing digital infrastructures, to expand access in GIDAs, and to encourage strategic collaborations for pursuing open-access networks that will benefit all market players.

To foster effective competition and level the playing field, the government will strongly push for necessary reforms and undertake the following:

- a) Review the regulatory landscape and strengthen the policy and regulatory environment to encourage just and transparent interconnection among the industry players and establish effective open-access network;
- b) Nurture and promote facilities-based competition so that industry players consistently invest to advance their digital infrastructures, thereby benefitting the general public; and
- c) Streamline bureaucratic processes and relax the administrative procedures and licensing requirements to ease market entry.

To facilitate the roll-out of broadband infrastructure in less profitable or remote areas, the government will strategically use its existing assets and adequately invest to help meet the requirements in the domestic backbone and middle-mile segments. It will also encourage infrastructure sharing among industry players.

Address universal mobility and connectivity needs

Gender mainstreaming, inclusion, and accessibility will be main considerations in all stages of transport project implementation. The Philippine Harmonized Gender and Development Guidelines (HGDG) will be integrated in all phases of infrastructure project development and implementation. Facilities for the mobility needs of women and men commuters from all sectors (i.e., PWDs, senior citizens, and indigenous peoples or IPs) will be provided. Gender mainstreaming, inclusion, and accessibility will be integrated in the monitoring and evaluation (M&E) mechanism. Collection of sex-disaggregated data and other gender and social inclusion data will be strengthened.

Universal digital connectivity needs will be addressed. To help in building a digitally connected and inclusive society, the government will promote accessibility and assistive technology innovations. This will further ensure equal access such that all people are encouraged and empowered to use digital services (*See Chapter 8*).

Water Resources

Outcome 3: Water security, ecological integrity of water systems, and resiliency to water hazards attained

The strategy in the water sector is to implement effective water governance through IWRM as applied in the planning and management of land, water, and coastal resources. The major pillars in this strategy are as follows:

- a) Ensure water availability through efficient water infrastructures and management.
- b) Allocate and utilize water efficiently especially over competing water uses.
- c) Maintain and enhance surface and ground water quality.
- d) Ensure good sanitation and drainage (including proper disposal).
- e) Protect land, water, and coastal resources.
- f) Protect life and property from water and coastal hazards including dam-related hazards.
- g) Manage flood effectively (with sediment control) and mitigate droughts.

Upgrade and expand water infrastructure

1. Implement the Philippine Water Supply and Sanitation Master Plan, the National Irrigation Master Plan, the National Water Security Road Map, and various Flood Master Plans for Metro Manila and major river basins. As necessary, the master plans should be revised and modified based on location-specific conditions and prioritization and timing of investments. In essence, the plans shall

be adaptive, and the planning process iterative and interactive.

2. The following infrastructure will be prioritized:
 - a) ***Effective and sustainable water supply system (WSS) services with cost-efficient and well-designed WSS structures.*** Adequate institutional capability to efficiently operate and maintain WSS systems in terms of service coverage, performance, and financial sustainability will be developed.
 - b) ***Water storage reservoirs for water supply and drought mitigation, or multi-purpose dams with flood control functions.*** Reservoirs should be planned with infinite life so that sediment deposition can be avoided through sediment flushing (built-in facility and operations), and integrated with climate risks assessments to increase the reliability of service provision and asset life.
 - c) ***Irrigation systems with pipe or closed conduits or conveyance systems.*** These will be prioritized rather than open channel or gravity canals to eliminate sedimentation problems.
 - d) Proper flood drainage systems in irrigation service areas.

- e) Flood control and coastal protection infrastructures with hybrid systems, that is, a combination of NBS and engineered or gray structures. In NBS, floodplains, wetlands, and forests are to be restored and enhanced to store and attenuate flood waters, while engineered structures such as flood walls, embankments, and detention ponds should be skillfully designed in combination with the NBS.
3. Country-wide guidelines shall be developed for rainwater harvesting considering seasonal availability and regional variability of rainfall associated with water use, storage requirement, and economic benefit. In urban areas in particular, rainwater harvesting can be multipurpose, such as for household water supply, stormflow reduction, and groundwater recharge. Investments in smart metering and pricing of household water use and demand management shall be promoted. Public-private partnerships (PPP) shall be encouraged to enhance and strengthen investments in managing and developing water infrastructures and services. Obstacles to private sector participation shall be managed.

Strengthen implementation of integrated water resource management

For IWRM management instruments include water resources assessment, data collection networks, allocation and conflict resolution, allocation through market instruments, risk management tools, regulatory instruments, communication and information for

informed stakeholder participation, and use of technology for research and development.

The following priority strategies in terms of management instruments will be pursued:

- a) **The institutional fragmentation of the water resources sector shall be addressed.** The main motivation of applying institutional reforms within the bureaucracy is to efficiently orchestrate, coordinate, and integrate the development and management of water resources using IWRM principles (covering integrated management and harmonization of land and coastal resources with water resources including control of water-related hazards) and science-based decision support systems.
- b) **The government's capacity to conduct continuous scientific studies will be ensured.** The institutional capacities of existing agencies to conduct continuous scientific studies (i.e., data analyses, modeling, scenario simulations) will be enhanced, with adequate and regular funding provided.
- c) **Decision support system for purposes of science-based water resources planning and management as well as for multi-stakeholder consultation and public participation will be developed and maintained.** Such decision support system shall be based on digital ecosystem framework with interoperable set of data, algorithms, methods, and analysis tools to provide real-time information and actionable knowledge and insights that can be easily understood by decision makers and stakeholders or citizens.

d) **University- or college-based water resource centers will be tapped to undertake problem-oriented research, development, extension, and training activities related to the water sector on a sustained basis.** These centers provide regional or local presence and can proactively engage in developing the water research program in the country taking cognizance of the public interest in general as well as facilitating interaction with local or regional agencies, policymakers, and stakeholders. Outsourcing to university-based water resource centers is more sustainable and efficient for provision of scientific and technical support especially with their experiences and knowledge in water resources development and management in the countryside.

e) **Investments in data monitoring systems will be made.** A rationally designed sampling network for long-term data monitoring of surface water, ground water, water quality, and sediments data will be established all over the country. Proper (statistically and/or physically based) temporal and spatial sampling frequency of data collection shall be ensured throughout the said network. Inefficient irrigation water utilization especially for upland rice production may be addressed with “smart monitoring” of soil moisture conditions to optimize irrigation scheduling, and by timing the cropping season according to type of water calendar, which is location-specific in the country (i.e., the rice cropping season cannot be uniform for the entire country).

f) **Dam safety measures shall be prescribed and operations shall be stringently monitored.** A dam safety body shall be created through executive action, with the goal of ensuring that all dams are safely operated, thereby protecting lives and property particularly in times of extreme weather events. All dam operators shall be made to comply with established safety standards in dam operations through rigorous monitoring and assessments.

Invest in water infrastructure services provision and provide accessible financing for water supply and sanitation projects

PPPs will be tapped to deliver needed water infrastructure facilities and services. In particular, for water supply and sanitation projects, the economic regulatory environment will be rationalized and strengthened to address the fragmented, poorly enforced, and low-coverage regulatory regime in the WSS sector. This entails, among others, the consolidation and harmonization of tariff-setting methodologies, setting of performance and technical standards, and establishing policies and processes for the granting and revocation of licenses. A credible and effective economic regulatory regime is seen to induce the expansion and improvement of services, encourage further private sector participation, protect the interests of consumers, and address the conflicts of interest inherent in the current regulatory agencies.

In addition, a framework for rationally allocating resources for WSS will be established, where government support

will be provided for viability gap funding to economically viable but financially unviable projects, performance-based grants to enable

equitable access to WSS services, and funds or subsidies to leverage access to market-based lending or private equity.

Energy

Outcome 4: Affordable, accessible, reliable, and clean energy provided

Implement game-changing reforms to bring down the cost of electricity

Reforms stipulated in the Electric Power Industry Reform Act (EPIRA) will be completed. The primary strategy to reduce cost and make energy more cost-competitive is to ensure the completion of the reforms as stated in EPIRA and fast-track the full implementation of Retail Competition and Open Access (RCOA). The end goal is to set up a competitive retail sector serving households and commercial customers by relaxing the requirements for participation of end-users in RCOA. The full implementation of the Green Energy Option Program—RCOA's counterpart with emphasis on RE—also empowers consumers with a 100-kilowatt demand to choose RE as their preferred power supply.

The tax (value-added) base will be rationalized so that consumers are not taxed for the electricity they do not consume. The government shall endeavor to accelerate the privatization of assets, strengthen the competitive selection process in securing bilateral power supply contracts, and revisit the rules and regulations on cross-ownership between retail electricity suppliers and generation companies or distribution utilities. These measures will foster transparency

and promote fair competition in the implementation of the retail competition and open access.

The government will explore ways to open and set up new windows of competition: the forward market, reserves market, and capacity market. Such measures can help approximate the full benefits of competition even with a concentrated generation sector, provided retailers and generators actively use them instead of bilateral contracts. Nonetheless, these will be introduced in phases to allow greater participation and adjustments as challenges arise.

The entry of more players in renewable energy due to the relaxation of the 60–40 ownership restriction will likely result in increased generation capacity, consequently contributing to cost reduction.⁴¹ The recent issuance on the Renewable Portfolio Standards furthers utilization of renewables as the policy provides a quota for consumers (through the mandated participants) to purchase RE from 1 percent to 2.52 percent annually starting 2023. As more entrants venture into the sector, the country's transmission network will need to be prepared as well. The DOE's exercise of oversight on the transmission concessionaire is necessary. The concessionaire will be

responsible for incorporating the proposed transmission projects in the Competitive Renewable Energy Zones.

The government will enhance the reliability of existing power plants and improve their maintenance scheduling. Complete adherence to the Grid Operation and Maintenance Program (GOMP) is critical as it establishes the timetable of scheduled outages of power generating units and transmission facilities. The government will also pursue the conduct of the Performance Assessment and Audit for power generation facilities and distribution utilities to identify the issues, challenges, and appropriate policy measures to improve power systems operations. Finally, the government will take measures to incorporate climate risks in energy infrastructure operations and maintenance.

Enhance the delivery of energy by coordinating investment in generation, transmission, and distribution

The government will endeavor to enhance the market's ability to coordinate investment in generation, transmission, and distribution infrastructure and achieve total electrification across the country. A well-conceived master plan, oriented to coordination, not coercion, of key industry players and that accounts for the existing assessment of the industry and provides incentive-compatible arrangements will attract investors to bet on the country for the long term.

The government will rationalize bureaucratic processes and remove local-central government impasse when undertaking

investments in generation. The LGU Energy Code⁴² also espouses a convergent framework to facilitate putting-up energy projects. The passage of the Ease of Doing Business and the Energy Virtual One-stop Shop⁴³ are promising ways forward. However, the implementation and practices of the various permit-issuing agencies will be reviewed to ensure the realization of the law's true intent.

The government will facilitate the upgrading and modernization of transmission and distribution lines to support efficient transition to cleaner energy. The government will also resolve transmission congestion, especially between Luzon and the Visayas grid, whether by adding transmission lines or avoiding subsidies that cause the build-up of excess capacity. Once the government has the needed fiscal space, it should revisit and re-evaluate financing investment in transmission. Financing and investment will be separated from the regulatory structure of transmission tariffs. Investment in transmission expansion offers enormous potential benefits for efficiency by increasing access to low-cost generation, improving reliability, and counterbalancing market power.

Energy will be delivered to consumers in off-grid or missionary areas. The subsidies to these areas will be gradually reduced as they are progressively connected to the main grid. Related policies have been issued on pushing for off-grid development.⁴⁴ Enhancing private sector participation is a strategy that needs to be reinforced and strengthened.

The shift from vehicles that rely on conventional fuel modes to electric vehicles will be pursued. Pursuant to the

Electric Vehicle Industry Development Act,⁴⁵ the government will implement the Comprehensive Roadmap for Electric Vehicle Industry. While the switch to electric vehicles is expected to increase the electricity demand, such increase may also encourage the entry of more investments in the electric vehicle markets.

Provide an enabling environment for the market to deliver an optimal fuel mix

Besides facilitating the market's ability to provide an optimal fuel mix, the government should also provide correct market incentives for appropriately clean and reliable power. An optimal fuel mix is a combination of fuel sources that will deliver adequate and the least-social-cost supply of energy toward a smooth transition to cleaner energy according to the level of a country's development. The social cost of pollution includes both the domestic cost of carbon emissions and the costs of local pollutants (sulfur oxides, nitrous oxides, and particulate matter) that impinge on health. The government will endeavor to provide an enabling environment for an efficient energy transition that respects technological neutrality and a level playing field. New investment in generation will use the most cost-competitive fuel sources. For the market to promote these, regulations will be streamlined, and pollution taxes will replace mandates and feed-in-tariff subsidies to reflect the negative value of pollution.

With the impending depletion of Malampaya gas resources, the government will expedite the development of the

natural gas industry. Importing LNG is an immediate solution to this threat. To secure LNG supply overtime, investments in the sector should be promoted and guided. Toward this, creating an enabling legal and regulatory framework for the natural gas industry should be prioritized. New oil and gas fields shall likewise be explored. As the LNG industry develops, potential demand outside of electricity generation will also be explored.⁴⁶

Liberalization of foreign ownership of RE generation will be pursued to stimulate investments toward efficient energy transition.⁴⁷ The government will revisit the IRR of the RE Act to remove the nationality requirement imposed on businesses engaged in the exploration, development, and utilization of inexhaustible energy resources. The strategy is to allow the entry of foreign capital into the country's RE industry and thereby lower the cost of RE projects, and make clean energy more accessible to the public. All these measures will help achieve the targeted 35 percent share of RE in the power generation mix by 2030 and 50 percent share by 2040.

To facilitate the entry of more renewables, intermittency problems shall be addressed. The mandatory and preferential dispatch of RE is expected to facilitate the increase in RE investments. Capacity markets shall be developed to allow for more generation plants with flexibility to adjust generated output as needed to compensate for the intermittency of renewable sources. Electricity generated from sources such as solar, wind, tidal, and wave are intermittent as they are not continuously available due to external factors

that cannot be controlled. The natural gas industry's development will encourage investment in gas-fired generation plants with quick start and shutdown capabilities needed to balance the intermittent supply. Along with capacity markets are innovative game-changers in the sector for deployment such as energy storage systems and digitalization of energy systems through the use of ICT (network-connected devices) and smart meters (for real-time monitoring of energy consumption). Other ways to address intermittency such as diversification of the wind-solar portfolio by type and location and thermal storage (i.e., heat water when solar makes price low or make ice used later for air conditioning) will be pursued.

The government will explore the inclusion of nuclear energy in the mix. EO 164 on adopting a national position toward a nuclear energy program has set the stage for re-evaluating the entry of nuclear energy into the fuel mix. Rigorous scientific studies will be undertaken first before the government will allow investment in nuclear plants. The government, through DOE, will also endeavor to make these scientific studies and actions to be taken, transparent and consistent with the guidelines of the International Atomic Energy Agency and accepted by the public. DOE will closely work with Congress and the Department of Science and Technology in crafting the legal and regulatory framework for nuclear energy.

The government will maximize utilization of indigenous energy resources. To maximize the country's existing indigenous energy sources and enhance the promotion and awarding of Petroleum Services

(PSCs) in the country, the government will continue its implementation of the Philippine Conventional Energy Contracting Program. Moving forward, the government will address the challenges of the upstream sector related to exploration activities in the West Philippine Sea.⁴⁸

Enhance the demand side management

Government will lead energy efficiency and conservation efforts. The Energy Efficiency and Conservation (EEC) Act will be fully implemented so that energy efficiency will contribute to improving national productivity at the most reasonable cost. The EEC Roadmap and the National Energy Efficiency and Conservation Plan will be updated and enhanced to provide the policy and program direction on making EEC a way of life for all energy consumers.

The government will lead by example through the Government Energy Management Program, which promotes fuel and electricity consumption reduction by 10 percent. In the medium term, a Demand Side Management Circular will be issued on initiatives and technologies that will encourage consumers to optimize their energy use. The government will collaborate with the energy service companies and the private sector to assess the implementation of their respective EEC projects. The Philippine Energy Labeling Program will be expanded to cover more energy-consuming products.⁴⁹ Own-use and participation in the Interruptible Load Program and Net-Metering program will be encouraged.

Invest in energy innovation to respond to increasing demand and new markets for clean technology goods and services

The government shall provide a conducive environment to encourage the private sector investments in game-changing innovations that will facilitate entry of cleaner energy in the market and respond to increasing demand. On the supply side,

the innovative solutions include thermal storage, digitalization of energy systems through the use of ICT (network-connected devices), and development and deployment of energy storage systems. On the demand side, innovative technologies include smart meters for real-time monitoring of energy consumption, and energy-efficient appliances, among others.

Social Infrastructure

Outcome 5: Enhanced support to social development provided

Ensure equitable access to health and educational infrastructure, in partnership with the private sector

Develop health infrastructure guided by the PHFDP 2020–2040. In line with the Universal Health Care Act, a health care provider network will be established in every province or highly urbanized city to ensure comprehensive and adequate provision of health care services. LGUs and private providers will work with the national government to ensure that the primary care network (barangay health stations and primary health care facilities), hospitals, standalone or specialized facilities, and other ancillary facilities (i.e., private medical outpatient clinics, infirmaries, birthing homes, dental clinics), whether publicly or privately owned, are functionally integrated within the health care provider network.

A comprehensive needs assessment of critical health facilities involved in service delivery networks will be regularly conducted. The assessment results will form part of the

basis for determining which facilities will be constructed upgraded, or expanded under the HFEP. National government support for health infrastructure will be guided by the National Allocation Framework, which gives priority to low-capacity and high-gap areas.

To ensure equitable access to quality and affordable health care goods and services, proposed interventions will prioritize GIDAs, marginalized populations, and IP communities. Multisectoral partnerships will also be pursued to deliver telemedicine, remote health care services, emergency medical service through ambulance and patient transport services, and other innovations for health. The national government will issue guidance regarding appropriate financing for such services to reach more underserved and unserved areas with timely healthcare.

Issues in the implementation of the Basic Education Facilities Fund will be addressed. DepEd, in coordination with

LGUs, will improve the identification of classroom gaps at the local level to better inform the planning and programming, and facilitate the implementation by DPWH. DPWH will revisit the uniform pricing and specifications for school buildings to account for possible variances in prices and technical requirements by location. Procurement by lot or package will be pursued, as applicable, to encourage more bid participants.

Adopt modern learning spaces. The need to transform the education system to address the enduring education crisis in the country brings forth the need to modernize learning spaces and ensure adequate, safe, and resilient facilities for students. As such, classrooms shortages will be addressed, while adhering to ideal classroom size to maintain safety and health protocols and ensure optimal learning environment.

In all schools, universal access to basic utilities such as electricity, internet, and water supply will be pursued. Provision of basic facilities, including water, sanitation, and hygiene facilities, libraries, and science laboratories will be ensured. Learning spaces will be designed, configured, and equipped to emulate the classroom of the future.⁵⁰ Government allocation for education spending will be prioritized while aid and resources from the private sector, non-government organizations, and civil society organizations will be sought.

Improve resiliency to support health and educational outcomes

In cooperation with the national government and private stakeholders, LGUs will identify locations within their jurisdiction for health

facilities, school buildings, and evacuation centers taking into consideration not only accessibility and demand, but also long-term resilience to natural and anthropogenic hazards and risks, including those associated with climate change.

National and local government funding, coupled with multi-sectoral partnerships, will be pursued to adequately provide for the construction, retrofitting, and repair of health facilities and schools; to better withstand the impact of hazards and calamities; and to minimize disruption of services or classes. In every LGU there will be permanent disaster-resilient evacuation centers, equipped with adequate Gender Equality, Disability and Social Inclusion (GEDSI)-responsive basic facilities constructed for families displaced during emergencies.

Health system structures that contribute to the ability to prepare for and respond to diseases of public health concern will be established and/or strengthened. Among the top priority structures are the proposed Virology and Vaccine Institute of the Philippines, Center for Disease Prevention and Control, and the Philippine Public Health Laboratory System.

Pursue optimal solid waste management solutions

Facilitate clustering of LGUs to take advantage of economies of scale. The Department of Environment and Natural Resources will assist the LGUs in consolidating their efforts, services, and resources for the purpose of delivering common facilities for waste management to take advantage of economies of scale. This

will alleviate their budget burden for capital-intensive projects and enhance the financial viability of these projects, thus making them attractive to private investors.

Explore technology options and financing schemes for SWM based on updated LGU waste data. Results of scientific research and development, and of demonstration projects shall guide the promotion and adoption of low-carbon (*See Chapter 15*), new modern, and innovative technologies, including WtE. A menu of technology options and financing schemes for the implementation of SWM projects will be provided, taking into consideration the composition of waste per source, the availability of suitable sites, and greenhouse gas emissions avoidance and reduction targets under the country's Nationally Determined Contribution (*See Chapter 15*). Alongside these, waste

analysis and characterization studies will be regularly conducted.

Supporting SWM programs will be intensified. Capacity-building programs will be undertaken to develop the technical capacities of LGUs to undertake waste analysis and characterization studies and assess technical and financial options for implementing SWM projects. Information, education, and communication campaigns will be aggressively conducted to promote greater waste diversion, thus, optimizing the use of disposal sites and enhancing willingness to pay for SWM services.

Legislative Agenda

Table 12.2 presents priority bills for the 19th Congress during the Plan period to expand and upgrade infrastructure.

Table 12.2 Legislative Agenda to Expand and Upgrade Infrastructure

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
General Infrastructure Policy		
Public-Private Partnership (PPP) Act	This amends the Build-Operate-Transfer Law to enhance the principal framework governing PPPs in the Philippines by fostering a more competitive and enabling environment for PPPs, addressing the ambiguities in the existing law, and addressing the bottlenecks and challenges affecting the PPP program.	Public-Private Partnership Center, National Economic and Development Authority (NEDA)
Amendment of RA No. 10752 or The Right-of-Way Act (ROWA)	This will address difficulties in complying with the law's strict requirements (such as valuation, compensation, and expropriation problems) and further expedite the implementation of infrastructure projects; to provide clearer, fairer, and simpler terms for ROW acquisition for both property owners and the government.	Department of Public Works and Highways (DPWH)
Physical Connectivity		
National Transport Policy Act	This aims to help achieve a safe, secure, efficient, competitive, dependable, integrated, environmentally sustainable, and people-oriented Philippine transportation system by setting forth policies that will serve as boundary conditions to guide all entities involved in the transportation sector in the exercise of their functions, including the creation of metropolitan transit authorities, and clarifying the roles and responsibilities of national and local governments.	Department of Transportation (DOTr), DPWH
Magna Carta for Commuters	This seeks to address the long-standing plight of Filipinos in public transportation by laying down the rights of the commuting public; promoting an efficient, safe, convenient, accessible, and inclusive public transportation system; and setting key performance indicators and service standards for commuters.	DOTr
Enactment of a law institutionalizing the use of bicycles and other active and sustainable modes of transportation, including updating standards for accessible and safe pathways, and green open spaces	This aims to shift the role of bicycles and other forms of non-motorized and active transportation, from being an "alternative mode" toward an institutionalized mode of transport that is integrated in the transportation network of the country. This will be done by providing the necessary infrastructure and support services, establishing safety and design standards for universally accessible and safe pathways and green open spaces, and increasing public awareness on road safety and road sharing among motorists, cyclists, and pedestrians.	DOTr
Rationalizing the mandates of transport agencies	This seeks to separate the regulator and operations functions of existing government entities; empowering local government units to assume greater responsibility and accountability for transportation and mobility outcomes	DOTr
Creating an independent body for transport safety and security	This will place all transport safety and security matters under a single independent body that will, among others, investigate transport accidents and provide transport safety recommendations, thereby eliminating conflicting and overlapping functions of existing agencies or entities.	DOTr
Digital Connectivity		
National Broadband Act	The bill proposes to institutionalize the National Broadband Program, public safety and emergency communications, and policies for the use of other passive infrastructures—poles, ducts, and dark fiber.	Department of Information and Communications Technology (DICT), Department of Energy (DOE), Department of National Defense, and DPWH
Amendment to the National Building Code	This seeks to ensure that buildings are capacitated toward achieving universal access to quality, reliable, and secure ICT services by incorporating minimum electronic requirements, i.e., telecommunications facilities, in multi-dwelling buildings, commercial, buildings, government buildings, office buildings, schools, and hospitals, among others.	DICT, DPWH

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Water Resources		
Department of Water Resources	This will address the weak and fragmented institutional set-up in the sector by streamlining all water-related functions in the government, and separate resource regulation from economic regulation.	NEDA
Water Regulatory Commission	The body will create a business and regulatory environment that is fair, transparent, and conducive for public and private domestic and foreign investment in water supply and sanitation services by implementing fair, just, and reasonable tariffs, rates, and charges for water supply and sanitation services.	NEDA
Energy		
Revisit RA 9136 Electric Power Industry Reform Act	This revisits the policy thereby ensuring its responsiveness to the power industry.	DOE, Energy Regulatory Commission, National Electrification Administration (NEA)
Development and Regulation of Philippine Midstream & Downstream Natural Gas	This aims to consolidate and enhance various executive issuances and policies governing the natural gas transmission, distribution, and supply.	DOE
Drafting of the Comprehensive Atomic Energy Regulatory Framework	This will create a nuclear regulatory body for the peaceful uses and application of nuclear energy.	DOE, Department of Science and Technology
Revisiting RA 10531 [National Electrification Administration Reform Act of 2013]	This is to enhance and streamline the mandate of NEA to ensure quality, reliability, and security of electric power supply.	DOE, NEA
Enhance the Energy Regulatory Commission	This will provide a more streamlined and stronger power regulatory body	DOE, ERC
Amendment of RA 8479 [Downstream Oil Industry Deregulation Act of 1998]	This clarifies the functions of DOE, Department of Trade and Industry (DTI), and Philippine Competition Commission (PCC) to ensure regulatory compliance of oil companies	DOE, DTI, PCC, Department of Finance (DOF)
Amendment of RA 9367 [Biofuels Act of 2006]	This aims to provide for time-bound suspension or reduction of the biofuels component in the event that oil prices are lower than biofuels.	DOE, Department of the Interior and Local Government (DILG)
Amendment of PD No. 87 [The Oil Exploration and Development Act of 1972]	This seeks to revitalize interest and encourage more drilling activity in the country.	DOE, Department of Environment and Natural Resources (DENR), DILG, DOF
Amendment of PD No. 972 [The Coal Development Act of 1976]	This will revise the income/sharing scheme and incentives granted to industry stakeholders; to increase the government share in coal operations and define the role of mining operators in environmental protection.	DOE, DENR, DILG, DOF
Social Infrastructure		
Public Schools of the Future in Technology (PSOFT) Act	This aims to integrate digital technology and innovation into public basic education by, among others, ensuring adequate investment in digital and technological infrastructure in public schools.	Department of Education
Waste-to-Energy (WtE) Act	This bill will provide the necessary regulatory framework for facilities utilizing WtE, the insufficient safeguards against potential environmental and health concerns surrounding WtE, ambiguities in the roles of government agencies and inefficiencies in carrying out these roles, and lack of investor confidence.	DOE/DENR

Notes: The Open Access in Data Transmission Act is discussed in Chapter 6; the e-Government Act is discussed in Chapter 14.

Results Matrix

Table 12.3 presents the indicators and targets to expand and upgrade infrastructure.

Table 12.3 Results Matrix: Expand and Upgrade Infrastructure

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Intermediate Goal: DELIVER SUSTAINABLE, RESILIENT, INTEGRATED, AND MODERNIZED INFRASTRUCTURE FACILITIES AND SERVICES Chapter Outcome: Connectivity, Water Resources, Energy, and Social Infrastructure Improved										
Public infrastructure spending increased (% share in gross domestic product [GDP]) ^a	5.9 (Q1–Q3 2022)	5.2	5.1	5.0	5.0	5.4	6.0	6.0	Actual spending	All concerned implementing agencies, Development Budget Coordination Committee (DBCC)/ Department of Budget and Management
Physical Connectivity										
Travel time (decreased) via land per key corridor (hours)	3.285 (2019) 2.38 (2021)	3.272	3.258	3.246	3.233	3.220	3.207	3.207	Agency reports	Metro Manila Development Authority, Department of Public Works and Highways (DPWH)
Percentage of cycling households in the Philippines increased (% of total households)	29 (2020)	30.00	31.00	32.00	33.50	35.00	36.00	36.00	Agency reports; Third-party independent surveys	Department of Transportation (DOTr)
Passenger trips via rail in Metro Manila increased (% share to total passenger trips, cumulative)	1.00 (2021)	11.00	12.00	12.50	13.00	13.50	14.00	14.00	Agency reports	DOTr, Light Rail Manila Corporation/ LRT Line 1 Project Management Office, Light Rail Transit Authority, Philippine National Railways (PNR), DOTr-MRT3
Passengers transported via air and sea increased (number of passengers, cumulative)	35.72 million (2021)	158.54	166.47	174.79	183.53	192.71	202.34	202.34	Agency reports	DOTr, Civil Aviation Authority of the Philippines (CAAP), Manila International Airport Authority (MIAA), Mactan Cebu International Airport Authority (MCIAA), Clark International Airport Corporation (CIAC), Davao International Airport Authority (DIAA), Philippine Ports Authority (PPA), Cebu Port Authority (CPA)

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Cargo transported via air and sea increased (international and domestic) (metric ton, cumulative)	470.30 million (2021)	1,302	1,400	1,470	1,570	1,700	1,850	1,850	Agency reports	DOTr, CAAP, MIAA, MCIAA, CIAC, DIAA, PPA, CPA, Subic Bay Metropolitan Authority, Economic zones
Road traffic accident (crash) rate reduced (number of incidents per 100,000 population) - incidents of accidents (crash)	3.85 (2021)	3.50	3.40	3.30	3.00	2.75	2.50	2.50	Vital Statistics Report, Philippine Statistics Authority	DOTr
Digital Connectivity										
Average download speed (Mbps)	78.69 (Sep 2022)	100.00	125.00	150.00	200.00	250.00	300.00	300.00	Ookla Speedtest Global Index	Department of Information and Communications Technology (DICT)
Households with internet access (% total HHs)	17.70 (2019)	35.00	40.00	45.00	50.00	55.00	60.00	60.00	International Telecommunication Union (ITU)	
Affordability of mobile and fixed broadband service (% gross national income per capita)									ITU	DICT
Mobile broadband	2.04 (2021)	2.00	2.00	2.00	< 2.00	< 2.00	< 2.00	< 2.00		
Fixed broadband	11.56 (2021)	8.50	6.50	5.00	4.00	< 3.00	2.00	2.00		
Water Resources										
Safe water supply coverage (% of families)	91.60 (2020)	93.28	94.12	94.96	95.80	96.64	97.48	97.48	Data from surveys (e.g., Annual Poverty Indicators Survey or APIS, Family Income and Expenditure Survey or FIES)	Metropolitan Waterworks and Sewerage System (MWSS)/ Water Districts (WDs)/ Rural Water System (WS)/ Water Service Provider (WSP)
Access to basic sanitation (% of families)	93.90 (2020)	95.12	95.73	96.34	96.95	97.56	98.17	98.17	Data from surveys (e.g., APIS, FIES)	MWSS/ WDs/ Rural WS/WSP
Zero open defecation (ZOD) (based on % of municipalities with ZOD)	43.02 (as of August 2022)	80.12	95.01	100	100	100	100	100	Department of Health (DOH) Admin data	DOH, local government units (LGU)

Indicator	Baseline (Year)	Targets							Means of Verification	Responsible Agency/ Inter-Agency Body
		2023	2024	2025	2026	2027	2028	EOP		
Energy										
Proportion of households with access to electricity increased (% of total households) ^{b/}	95.41 (2021)	95.50	TBD	TBD	TBD	TBD	TBD	TBD	Department of Energy (DOE) Annual Report	DOE
Electricity Consumption per capita increased (kilowatt-hour/person)	804.21 (2021)	897	945	996	1,051	1,110	1,172	1,172	DOE Annual Report	DOE
Share of renewable energy in the power generation mix increased (%)	22.40 (2021)	24	26	28	30	32	33	33	DOE Power Statistics	DOE
Social Infrastructure										
Percent of provinces with adequate hospital bed-to-population ratio increased (%) ^{c/}	33.30 (2020)	35	40	45	50	55	60	60	DOH Admin Data	DOH
Percent of provinces with adequate primary care facilities increased (%)	20.90 (2021)	25	30	35	40	45	50	50	DOH Admin Data	DOH
Classroom-to-pupil ratio										
Primary	1:32 (2021)	1:32	1:32	1:32	1:32	1:32	1:32	1:32	Enhanced Basic Education Information System (EBEIS), Department of Education (DepEd) data	DepEd
Junior High School (HS)	1:44 (2021)	1:43	1:42	1:41	1:40	1:40	TBD1:40	TBD1:40	EBEIS, DepEd data	DepEd
Senior HS	1:41 (2021)	1:41	1:40	1:40	1:40	1:40	1:40	1:40	EBEIS, DepEd data	DepEd
Water and sanitation facility to pupil ratio										
Primary	1:26 (2021)	1:26	1:26	1:26	1:25	1:25	1:25	1:25	EBEIS, DepEd data	DepEd
Junior HS	1:39 (2021)	1:39	1:38	1:36	1:32	1:30	1:28	1:28	EBEIS, DepEd data	DepEd

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Senior HS	1:35 (2021)	1:35	1:34	1:32	1:30	1:28	1:26	1:26	EBEIS, DepEd data	DepEd
Proportion of public schools with internet access ^{d/}										
Primary	64.20 (2021)	70	75	80	85	90	98	98	EBEIS, DepEd data	DepEd
Junior HS	72.20 (2021)	75	80	82	88	92	96	96	EBEIS, DepEd data	DepEd
Senior HS	67.30 (2021)	72	80	84	88	92	96	96	EBEIS, DepEd data	DepEd
Proportion of barangays served by material recovery facilities	41 (2021)	43	45	47	49	51	53	53	Department of Environment and Natural Resources (DENR) - Environmental Management Bureau (EMB) data	DENR-EMB/ National Solid Waste Management Commission
Proportion of cities and/or municipalities served by sanitary landfill facilities	32 (2021)	35	38	41	44	47	50	50	DENR-EMB data	DENR

TBD = to be determined.

- ^a Indicative and subject to updating. Projections pertain to disbursements from national government infrastructure, infrastructure subsidy, and/or equity to government-owned and controlled operations, and transfers to LGUs intended for infrastructure activities. Includes payables from current year's budget and prior years' obligations. 2022 figures are programmed (Source: 183rd Minutes of DBCC Meeting, December 5, 2022).
- ^b Targets will be provided upon completion of the national electrification Master Plan by March 2023.
- ^c Based on the Philippine Health Facility Development Plan (PHFDP) 2020–2040, the adequate hospital bed-to-population ratio is 2.7 beds per 1,000 population. The PHFDP 2020–2040 recommends having an average hospital bed-to-population ratio of 2.7 per 1,000 population to meet the present health needs of the population. This gap may be addressed by constructing new hospitals or by expanding the existing hospitals or infirmaries.
- ^d Targets are schools located in areas with internet signal.

- ¹ Department of Transportation (DOTr). Railways Sector. Retrieved from <https://dotr.gov.ph/railways-sector.html>.
- ² DOTr. Annual Report, 2021. Pampanga; data from the Philippine National Railways.
- ³ DOTr. Railways Sector Data Sets. Retrieved from <https://dotr.gov.ph/data-sets/railways-sector-d1.html>, excluding PNR data.
- ⁴ Based on DOTr Ridership Data, excluding PNR data, and assuming a 30-day operation period per month.
- ⁵ National Council on Disability Affairs. Batas Pambansa Blg. 344: An Act to Enhance the Mobility of Disabled Persons by Requiring Certain Buildings, Institutions, Establishments and Public Utilities to Install Facilities and Other Devices. Retrieved from <https://www.ncda.gov.ph/disability-laws/batas-pambansa/batas-pambansa-blg-344/>.
- ⁶ In the MRT Incident Monitoring System 2016–2018, there were 30 reported cases of sexual harassment against women, and six against men.
- ⁷ Currently, two major policies have been issued for the continued integration of active transport in the transport infrastructure network: DOH–DILG–DPWH–DOTr Joint Administrative Order No. 2020-0001 covering the promotion and safe use of all types of active transport during and after the COVID-19 pandemic; and DPWH Department Order No. 88, Series of 2020, that prescribes standards for bicycle operating spaces and classification of bicycle facilities in our roadways.
- ⁸ Based on Social Weather Stations. (2022). Survey on Bicycle Ownership, Usage, and Attitudes of Filipino Household Heads on Cycling as Transportation.
- ⁹ World Health Organization. (2022). New WHO Report Highlights Progress, but Cites Need for More Actions to Tackle Road Safety in the Philippines. Retrieved from <https://www.who.int/philippines/news/detail/21-12-2018-new-who-report-highlights-progress-but-cites-need-for-more-actions-to-tackle-road-safety-in-the-philippines>.
- ¹⁰ The Maritime Route Rationalization and Information System estimates the number of vessels required per route through a route capacity measurement system, and determines the number of possible trips, passenger capacity, and perceived profitability of the fleet in a selected route.
- ¹¹ Philippine Statistics Authority. (2022). Highlights of the Domestic Trade Statistics in the Philippines First Quarter 2022 (Preliminary). Retrieved from https://psa.gov.ph/sites/default/files/attachments/itsd/specialrelease/1_Textual%20Analysis%201st%20Qtr%202022%20DomStat%20v2_TSD_ONS-signed.pdf.
- ¹² Fixed broadband download speed.
- ¹³ Speedtest Global Index. (2022). Philippines Mean Country Speeds. Retrieved from <https://www.speedtest.net/global-index/philippines> (accessed day Month year).
- ¹⁴ The United Nations Broadband Commission for Sustainable Development targets to bring the cost of entry-level broadband services below 2 percent of GNI per capita by 2025. See International Telecommunications Union (ITU). ICT Price Baskets (IPB). Retrieved from <https://www.itu.int/en/ITU-D/Statistics/Dashboards/Pages/IPB.aspx>
- ¹⁵ Department of Information and Communications Technology (DICT), National ICT Household Survey 2019, DICT Website Retrieved from <https://dict.gov.ph/ictstatistics/nichs2019/>
- ¹⁶ ITU. Digital Trends in Asia and the Pacific in 2021: Information and Communication Technology Trends and Developments in the Asia-Pacific Region, 2017–2020. Retrieved from <https://www.unapcict.org/sites/default/files/2021-03/Digital%20Trends%20in%20Asia%20Pacific%202021.pdf>.
- ¹⁷ Ravago, M.V. (2023). The Nature and Causes of High Philippine Electricity Price and Potential Remedies. Ateneo Department of Economics Working Paper No. 2023-01. Quezon City: Ateneo de Manila University.
- ¹⁸ Ravago, M.V., A. Brucal, J. Roumasset, and J. Punongbayan. (2019). The Role of Power Prices in Structural Transformation: Evidence from the Philippines. *Journal of Asian Economics* 61:20–33.
- ¹⁹ Rodrik, D. (2016). Premature Deindustrialization. *Journal of Economic Growth* 21(1): 1–3.
- ²⁰ For a more detailed comparison, see Ravago, M.V. (2022). The Cost Structure of Electricity in the Philippines and Other Asian Countries: A comparative note. Ateneo Department of Economics Working Paper 2022-02. Quezon City: Ateneo de Manila University..
- ²¹ For a discussion on this paradoxical result, see Ravago, M.V. and J. Roumasset. (2021). COVID-19, Generation Fuels, and the Energy Transition in the Philippines. *Transactions National Academy of Science & Technology Philippines* No. 43. Retrieved from <https://transactions.nast.ph/wp-content/uploads/2022/02/2021-Plenary-Paper-Ravago-MV.pdf>.
- ²² See Annex A, which provides the list of projects approved by the Department of Energy (DOE), with FGEN LNG Corporation and Linseed Field Corporation expecting to fill the gap of the depleting Malampaya gas, in Gas Policy and Development Project. 2022. Natural Gas Development Plan. Retrieved from <http://gdpd.online/outputs-reports/technical-assistance-to-government/natural-gas-development-plan/>.
- ²³ Chakravorty, U., K. Emerick, and M. V. Ravago. (2016). Lighting the Last Mile: The Costs and Benefits of Extending Electricity to the Rural Poor. *Resources for the Future Discussion Paper* No. 93. Retrieved from <https://2012.ateneo.edu/ls/soes/economics/publication/10/08/19/lighting-last-mile-costs-and-benefits-extending-electricity>.
- ²⁴ Fabella, R., D. Bajaro, and J. Gapay. (2018). Electric Cooperatives: What's the Score and Where Do We Go from Here? In M.V. Ravago, J. Roumasset, and R. Danao, eds. *Powering the Philippine Economy: Electricity Economics and Policy*. Quezon City: University of the Philippines Press.
- ²⁵ Commission on Audit. Annual Audit Report 2021. Retrieved from <https://www.coa.gov.ph/reports/annual-audit-reports/aar-ngs/#49-5456-department-of-health-1658122476>.
- ²⁶ National Economic and Development Authority. 2021 Socioeconomic Report. Retrieved from <https://neda.gov.ph/wp-content/uploads/2022/07/SER-2021-Chapter-19.pdf>
- ²⁷ Based on a report by DepEd during the Senate Hearing of the Committee on Basic Education held on August 19, 2022.
- ²⁸ Department of Education (DepEd). (2022). Basic Education Development Plan 2030. Pasig City. Retrieved from https://www.deped.gov.ph/wp-content/uploads/2022/05/DO_s2022_024.pdf.
- ²⁹ DepEd. (2022). DepEd Data: Functional Computers and Internet Connectivity SY 2020-2021. Retrieved from <https://www.deped.gov.ph/wp-content/uploads/2022/04/DepEd-Databits-Functional-Computers-and-Internet-Connectivity-4.pdf>
- ³⁰ Department of Education (DepEd). (2022). Basic Education Development Plan 2030. Pasig City. Retrieved from https://www.deped.gov.ph/wp-content/uploads/2022/05/DO_s2022_024.pdf.
- ³¹ Based on data obtained from 2021 Philippine Statistical Indicators on Philippine Development, as reported by DENR-EMB/NSWMC.
- ³² Department of Energy. DOE Department Circular No. DC2022-02-002: Prescribing the Policies and Programs to Promote and Enhance the Development of Biomass Waste-to-Energy (WtE) Facilities. Taguig City.
- ³³ World Bank. (2018). Logistics Performance Index. <https://lpi.worldbank.org/international/global>. Washington, DC; TomTom. 2020. Annual Traffic Index. Retrieved from <https://www.tomtom.com/traffic-index/>

- ³⁴ A recent policy issuance accorded preferential dispatch to all qualified and registered generating units utilizing RE in the wholesale electricity spot market. Intermittent or variable RE, which includes wind, solar, run-of-river hydro, and ocean energy, retain their “must dispatch” status. Meanwhile, the option to enjoy “preferential dispatch” is given to those that are not “must dispatch” such as biomass, geothermal, and impounding hydro plants.
- ³⁵ World Health Organization. (2022). Global Health Expenditure Database. Retrieved from <https://apps.who.int/nha/database/ViewData/Indicators/en> (accessed December 27, 2022).
- ³⁶ World Health Organization. (2010). World Health Report, 2010. Geneva. Retrieved from <https://www.who.int/publications/i/item/9789241564021>.
- ³⁷ Department of Health. Philippine Health Facility Development Plan 2020–2040. Manila. Retrieved from https://doh.gov.ph/sites/default/files/publications/DOH_PHILIPPINE%20HEALTH%20FACILITY%20DEVELOPMENT%20PLAN%202020_2040_0.pdf.
- ³⁸ DepEd. Various years. Statement of Appropriations, Allotments, Obligations, Disbursements and Balances (SAAODB) 2017–2021. Pasig City.
- ³⁹ DepEd. Annual Physical Report of Operations/Physical Plan 2018–2021. Pasig City.
- ⁴⁰ Navarro, A.M. (2022). School Infrastructure in the Philippines: Where Are We Now and Where Should We Be Heading? Quezon City: Philippine Institute for Development Studies. Retrieved from <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2210.pdf>.
- ⁴¹ The Green Energy Auction in June 2022, which accommodated around 1,966.9 MW of RE capacity that will be online 2023, is seen to contribute to reduction of cost.
- ⁴² Department of the Interior and Local Government and Department of Energy. 2020. Joint Memorandum Circular No. 2020-01: Guidelines for LGUs to Facilitate the Implementation of Energy Projects. 30 April.
- ⁴³ RA 11032 in 2018 and RA 11234 in 2019.
- ⁴⁴ This includes off-grid electrification, Renewable Portfolio Standards for off-grid, and omnibus guidelines in enhancing off-grid power development.
- ⁴⁵ See details in RA 11697.
- ⁴⁶ Ravago, M.V., K. Jandoc, R. Fabella, R. Friaz, and J. Magadia. (2021). Gauging the Market Potential for Natural Gas among Philippine Manufacturing Firms. *Energy* 237: 121563.
- ⁴⁷ As cited in the Department of Justice’s opinion, exploration, development, and utilization of inexhaustible renewable energy resources are not subject to the 60:40 constitutional foreign equity limitation.
- ⁴⁸ Currently, PSC holders are required to secure clearance from the National Task Force – West Philippine Sea; and the Security, Justice, and Peace Coordinating Cluster prior to any activity to be conducted in the West Philippine Sea area.
- ⁴⁹ These products include: (a) Cleaning and Laundry Appliances; (b) Cooking and Food Processing Appliances; (c) Cooling, Heating and Ventilating Appliances; (d) Grooming and Personal Care Equipment; (e) Information and Communication Technology (ICT) Equipment; and (f) Lighting Products
- ⁵⁰ Classroom of the future is an arrangement conducive for teaching and learning (i.e., expanded expertise of teachers and stimulated learning of students) characterized by sufficient, flexible space, and excellent facilities that are resilient and adaptive to climate change, disasters, urban migration and land shortage; and by the adoption of technology and developments in ICT, including online classes, among others.

13

**Ensure Peace and
Security and Enhance
Administration of Justice**

Ensure Peace and Security and Enhance Administration of Justice

A secure and peaceful community where guns are silenced, food and basic services are sufficient, and community life has normalized and shown signs of progress—this reality is now within the reach of geographically isolated and conflict-affected communities.

In pursuing economic transformation, the manifestation of peace and security is a necessary condition in allowing the implementation of development activities that could bring in more and better opportunities for the people. This is attainable if conflict-vulnerable areas are protected and developed, the quality of life is safeguarded from criminality, and communities are safe from natural hazards and other security threats.

Likewise, an efficient administration of justice is critical in ensuring sustained economic progress. A stable and accountable justice system, whether traditional or alternative, must inspire trust and confidence among stakeholders through integrity, fairness, and accessibility.

The Philippine Development Plan (PDP) 2023–2028 puts forward the premise that a whole-of-government approach with cross-cutting strategies is required in ensuring peace and security. It asserts that economic justice is a pillar of a strong and vibrant economy and requires a sector-based approach anchored on strong coordination among justice sector institutions, agencies, and actors to drive public engagement and trust in the justice system.

Subchapter 13.1 Ensure Peace and Security

Peace agreements between the government and non-state armed groups have stabilized security in many areas, normalizing a life free of violence and allowing the implementation of development projects that have opened new and better opportunities for the Filipinos.

Investing in peace and security continues. This is realized by completing the commitments of signed peace agreements and in helping former combatants, their families, and conflict-affected communities to return to civilian life. In areas not covered by peace agreements, localized peace engagements will be intensified, with local government units facilitating a whole-of-society approach. Affirmative action on law enforcement operations on land and at sea including disaster response will be strengthened. Ongoing modernization of the armed forces and other security sector agencies will be intensified to protect the country's territorial integrity.

Assessment and Challenges

The signing and implementation of peace agreements,¹ together with sustained law enforcement efforts, have stabilized security in geographically isolated and conflict-affected (GICA) communities and resulted in an increase in economic activities. However, challenges remain in the implementation of these agreements and groups with criminal and terrorist activities still exist. At the same time, natural hazards with devastating effects and the protection of territorial and national interests remain a challenge.

In the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), the peace process is steadily moving forward with the ratification of the Bangsamoro Organic Law (Republic Act No. 11054). The establishment of the Bangsamoro Transition Authority in 2019 and its extension to 2025² have laid the critical foundation for a fully functioning autonomous region. With this, significant progress was made in terms of the region's socioeconomic development. In 2021, BARMM registered the second-highest economic growth (7.5%) in the country, a significant improvement from 2016 when BARMM posted the lowest growth rate (0.3%) among all regions.³ Poverty incidence also declined significantly, from 61.8 percent in 2018 to 37.2 percent in 2021.⁴

The creation of the intergovernmental relations bodies between the national government and the Bangsamoro government addressed and resolved some of the key issues in the implementation of the Bangsamoro Organic Law. In 2021, the second phase of

the decommissioning process was completed, with 12,000 combatants and 2,100 weapons demobilized.⁵ The third phase is currently ongoing, aiming to decommission 91 percent of the combatants and their weapons. Likewise, the Camps Transformation Plan 2021–2026⁶ is presently implemented, outlining the efforts toward a meaningful transformation of camps into productive and resilient communities.

Similarly, strategic interventions under the *Bangon Marawi* Comprehensive Rehabilitation and Recovery Program are being implemented in areas affected by the 2017 siege. These include the provision of social and financial aid, health care services, educational support, and psychosocial healing for those affected. More recently, the Marawi Siege Victims Compensation Act of 2022 (RA 11696) was enacted to provide compensation for properties destroyed during the siege.

The peace process with non-state armed groups⁷ and development interventions for affected communities are in various stages of implementation. The demilitarization of arms and munition of the Cordillera Bodong Administration-Cordillera Peoples Liberation Army (CBA-CPLA) and the *Rebolusyonaryong Partido Manggagawang Pilipinas*-Revolutionary Proletariat Army-Alex Boncayao Brigade (RPMP-RPA-ABB) has been completed.⁸ In the affected areas, socioeconomic and livelihood interventions continue to be implemented. Meanwhile, the people of the Cordillera continue to pursue a meaningful regional autonomy.⁹

Moreover, local peace engagements were initiated in communities affected by the presence of the Communist Party of the Philippines-New People's Army-National Democratic Front (CPP-NPA-NDF). Communist rebels who surrendered are provided with socioeconomic and legal assistance support through the Enhanced Comprehensive Local Integration Program (E-CLIP) and community development interventions such as the *Payapa at Masaganang Pamayanan* (PAMANA) Program¹⁰ and the Barangay Development Program (BDP).¹¹ The PAMANA Program set the foundations for conflict-sensitive development efforts and empowered partners for peace.¹² From 2017 to 2021, PAMANA has supported 4,000 projects amounting to PHP18 billion.¹³ Similarly, PHP16.4 billion was released to support 2,276 socioeconomic¹⁴ and infrastructure projects in 2,228 communist-terrorist group-cleared barangays under the BDP.¹⁵

The implementation of a whole-of-government and whole-of-nation approach¹⁶ fostered a more holistic and cohesive government response, addressing the interrelated drivers of armed conflict in the country. Various clusters and regional and local task forces under the National Task Force to End Local Communist Armed Conflict (NTF-ELCAC)¹⁷ were activated. Key strategies in the National Action Plan on Preventing and Countering Violent Extremism were also rolled out.

Similarly, there has been significant reduction in crimes due to intensified law enforcement efforts.¹⁸ The Philippine National Police (PNP) Intensified Cleanliness Program was

launched to address problems in the service. Interventions based on the Philippine Anti-Illegal Drugs Strategy institutionalized a convergence system among government agencies to achieve drug-free communities. A science-health-security based approach on the drug problem is critical, and support for the professionalization and modernization of the PNP and drug enforcement bodies is needed.

Significant progress has also been made in terms of increasing the capacity of the security sector to respond to the adverse impacts of natural hazards and other security threats. The recently enacted Bureau of Fire Protection (BFP) Modernization Act (RA 11589) is expected to upgrade fire protection services in the country. The BFP also initiated the *Oplan Ligtas na Pamayanan* to capacitate barangays with systemic and comprehensive methods and procedures to prevent and respond to fires and other emergency and disaster risks. In addition, trainings on public safety were given to Barangay Peacekeeping Action Teams and non-government organization teams in areas. The National Chemical, Biological, Radiological, and Nuclear (CBRN) Action Plan was also formulated but is yet to be cascaded to relevant agencies.

The updating of the National Disaster Risk Reduction and Management Plan 2020–2030 outlines actions to ensure coordination and efficient logistics operations before and during disasters. Many local government units (LGU) have made significant progress in disaster preparedness and response, such as the adoption of standard operating procedures, activation of the Incident

Command System, prepositioning of relief, and search and rescue.¹⁹ However, data on population, critical facilities, and infrastructure exposed to natural and other security threats are still fragmented and incomplete.

Despite substantial improvements and actions toward ensuring peace and security, there remain challenges that must be addressed. In BARMM, all other intergovernmental relations mechanisms still need to be operationalized, such as the newly created Bangsamoro Sustainable Development Board and other intergovernmental arrangements between BARMM, the national government, and relevant LGUs. There are also challenges in the process of assisting former combatants in their return to civilian life and in the necessary enhancements in the healing, reconciliation, and gender mainstreaming components in GICA communities.

Moreover, the implementation of the peace and development interventions is not fully institutionalized at the regional and local levels. Gaps in efforts geared toward threat assessment, programming of responses, community engagement, dismantling of private armed groups, and strategic communication also need to be addressed.

Criminality and threats to public safety, including non-traditional security issues, also persist. The rapid growth and sophistication of cybercrimes and cyberattacks have increased the vulnerability of data, people, and structures. Hyperconnectivity has also expanded the attack surface of cybercriminals. Despite the initial efforts of the government, such as the formulation

of the National Cybersecurity plan and activation of the National Computer Emergency Response Team and the National Cybersecurity Operations Center, a more concerted effort in cybersecurity is still needed.

Various issues on development and management of the country's territory and maritime domain, including enforcement, regulation, conservation, and security need to be tackled. The 2016 Permanent Court of Arbitration (PCA) Ruling on the West Philippine Sea issue was a clear victory of a rules-based international order. However, the Association of Southeast Asian Nations (ASEAN)–China Code of Conduct in the South China Sea remains unfinished.

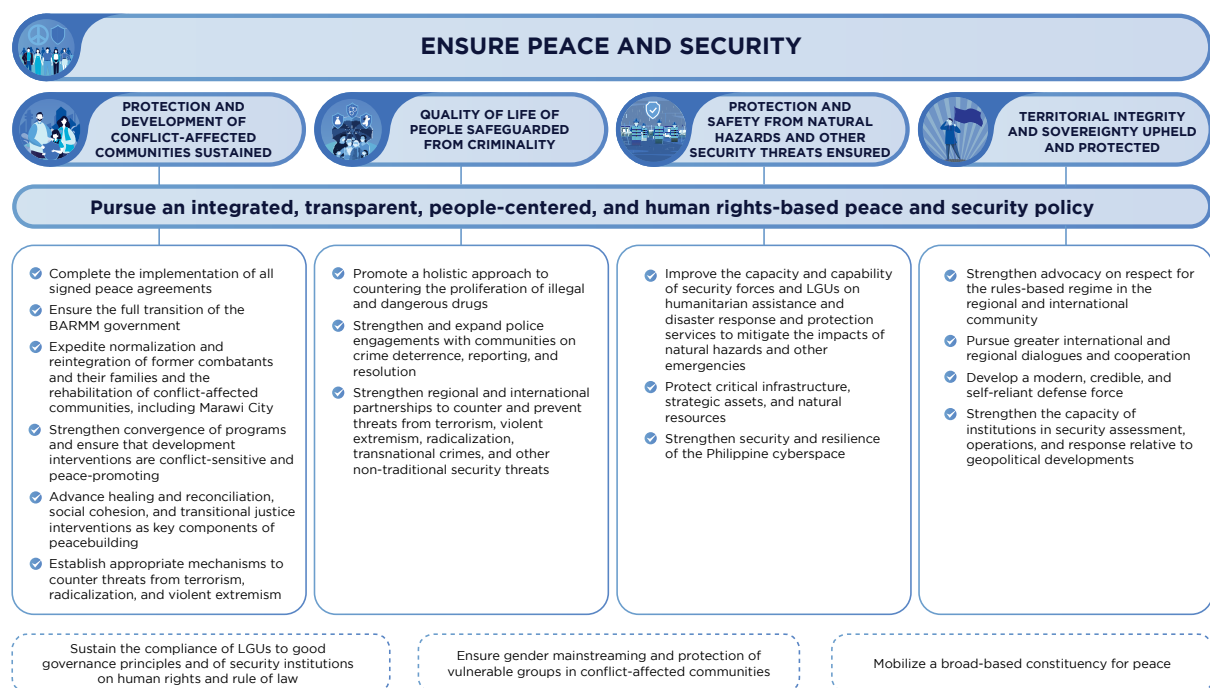
Cross-border and transnational criminal activities are still major concerns, given the porous borders and structural inadequacy of relevant state institutions. Current global political developments involving inter-state and intra-state conflicts further magnify the vulnerability of the country. Hence, support for the modernization of the Armed Forces of the Philippines (AFP), Philippine Coast Guard (PCG), and other relevant security sector agencies is critical, underscoring the force structure, capability and materiel upgrade needed to be more effective in undertaking internal and external security functions.

Strategy Framework

Ensuring peace and security is an essential foundation of sustainable development. The government will consistently pursue peace by mainstreaming peacebuilding and development interventions and utilizing a conflict-sensitive-and-peace-promoting paradigm in government programming. Toward this end, the gains of the peace processes in conflict-affected communities will be sustained; security and law enforcement operations, cybersecurity, and

disaster response will be strengthened so that the quality of life is safeguarded from criminality; protection and safety from natural hazards and other threats will be ensured; and the country's territorial integrity, maritime rights, and entitlements will be protected (*See Figure 13.1.1*). These outcomes will be realized through an integrated, transparent, people-centered, and human rights-based peace and security policy, supported by relevant cross-cutting strategies.

Figure 13.1.1 Strategy Framework to Ensure Peace and Security



Strategies

Outcome 1: Protection and development of conflict-affected communities sustained

Complete the implementation of all signed peace agreements

The government will remain steadfast in completing the commitments under all signed peace agreements. These include: (a) implementing peace and development interventions in RPMP-RPA-ABB-Tabara Paduano Group and CBA-CPLA communities; (b) supporting initiatives toward Cordillera autonomy; (c) facilitating the healing and reconciliation process in affected communities; and (d) providing legal assistance to qualified individuals. Relative to the Bangsamoro peace process, the national government will support the coordinating committees and security mechanisms on the remaining commitments under the 1996 Government of the Philippines-Moro National Liberation Front (MNLF) Final Peace Agreement and support the political track and normalization mechanisms in the implementation of the Comprehensive Agreement on the Bangsamoro.^{20,21}

Ensure full transition of the BARMM Government

Support will be extended to the Bangsamoro Transition Authority in institution building, personnel development, and economic management toward an inclusive BARMM government. Necessary policy and processes will be implemented to ensure a smooth BARMM elections in 2025. All intergovernmental relations mechanisms will be operationalized and strengthened

to resolve remaining and potential issues between the national and the Bangsamoro governments.

Expedite normalization and reintegration of former combatants and their families, and the rehabilitation of conflict-affected communities, including Marawi City

Normalization and transformation programs for the Bangsamoro,^{22,23} as supported by the Inter-Cabinet Cluster Mechanism on Normalization (ICCMN),²⁴ will continue. Demobilization of former combatants²⁵ and former violent extremists,²⁶ including the demilitarization of arms and munition, will be completed. The national and Bangsamoro governments will work closely in neutralizing armed threat groups to prevent and curb peace spoilers.²⁷ Systems and procedures in the delivery of socioeconomic support packages for decommissioned combatants, their families, and communities, and vulnerable groups (children, elderly, persons with disabilities [PWD], indigenous groups, internally displaced persons) will be made more efficient and effective.

Moreover, the government will fast-track the rehabilitation and catch-up development of communities through the implementation of various interventions, such as E-CLIP, PAMANA, and BDP. Furthermore, the government will complete the delivery of social, financial, and socioeconomic

assistance necessary for the recovery of affected individuals in Marawi. The government will complete infrastructure projects such as bridges; schools; health centers; markets; ports; and the 2,800 permanent housing units for Marawi's most affected to be utilized by target beneficiaries by 2024.

Strengthen convergence of programs, and ensure that development interventions are conflict-sensitive and peace-promoting

To improve conflict-sensitive and peace-promoting compliance, a monitoring and evaluation tool for GICA areas will be developed. Project targeting and implementation strategies will be further localized to ensure greater ownership of local communities.²⁸ More infrastructure projects will be rolled out in GICA areas and coordination between LGUs' Peace and Order Councils and Local Development Councils will be strengthened. Closer cooperation with domestic and international groups to support the various aspects of peace-building will be facilitated.

Advance healing and reconciliation, social cohesion, and transitional justice interventions as key components of peacebuilding

The legal process, including granting of amnesty to qualified individuals, will be facilitated. Training and skills improvement will be initiated for social workers and other relevant government agencies to improve capacity in dealing with former combatants and child soldiers.

Establish appropriate mechanisms to counter threats from terrorism, radicalization, and violent extremism

To neutralize peace spoilers, national and local agencies will strengthen their threat assessment capacity and response protocols. These involve: (a) institutionalizing preventing and countering violent extremism interventions in national and local bodies; (b) sustaining neutralization efforts against armed threat groups including law enforcement operations, case build-up against high-value targets, legal offensive, intelligence cooperation, military operations, and neutralization of illicit financial sources; (c) institutionalizing local peace engagements and transformation program for former rebels;²⁹ (d) strengthening the LGUs' peace and order council (POC); (e) sustaining the efforts of the National Task Force on Disbandment of Private Armed Groups; (f) developing a strategic communication plan aimed at social cohesion; and (g) developing a de-radicalization program for GICA communities.

Outcome 2: Quality of life of people safeguarded from criminality

Promote a holistic approach in countering the proliferation of illegal and dangerous drugs

To ensure that government efforts are people-centered, holistic, and human rights-based, the government will: (a) use a science-health-security based approach to curbing drug and illegal substance abuse, alongside restorative interventions for drug users and their dependents; (b) strengthen partnership with stakeholders; and (c) strengthen the reward and punishment mechanism in police and drug enforcement institutions. The PNP modernization program will continue giving stronger emphasis on professionalization, rights-based policing, and improving capability against traditional and non-traditional security threats.

Strengthen and expand police engagements with communities on crime deterrence, reporting, and resolution

Law enforcement will be strengthened by expanding police presence in communities and establishing more police stations in strategic areas. Active partnership with communities will be forged. Barangay Peacekeeping Action Teams, civil society organizations, and community volunteers will be engaged through community and service-oriented policing scheme. Public safety and law enforcement agencies will converge efforts in patrolling, internal security, and law enforcement operations, both in land and at sea. Systems for responding to crime and emergencies will be

made more efficient and relevant. Likewise, neutralization efforts against criminal groups will be sustained, internal cleansing in security institutions will be continued, and executive and legislative oversight over the police and other uniformed personnel will be enforced.

Strengthen regional and international partnerships to counter and prevent threats from terrorism, violent extremism, radicalization, transnational crimes, and other non-traditional security threats

Context-specific programs will be initiated to address radicalization efforts of violent extremist groups. As transnational crimes require rigorous national and local cooperation,³⁰ close partnerships with neighboring states will be sustained particularly on matters involving sea patrol, intelligence gathering, information exchange, rapid bilateral investigations, and apprehension of criminal elements in the porous borders of Southern Philippines³¹ and other critical areas.³² Bilateral and multilateral engagements in law enforcement and defense against violent extremist groups will be intensified and surveillance and inspection in air transportation³³ will be strengthened. Similarly, mandates and functions of various agencies relative to coastal management and maritime security will be reviewed and harmonized to ensure efficiency and effectiveness in addressing maritime security threats, while the modernization of the PCG and relevant maritime security institutions will be actively pursued.

Outcome 3: Protection and safety from natural hazards and other security threats ensured

Improve capacity and capability of security forces and LGUs on humanitarian assistance and disaster response and protection services to mitigate the impacts of natural hazards and other emergencies

To manage disaster risks, the National Disaster Risk Reduction and Management Plan 2020–2030 will be fully and effectively implemented. The National Chemical, Biological, Radiological, and Nuclear Action Plan will be integrated in national and local disaster mitigation and response planning, together with the established protocols and standard operating procedures in dealing with CBRN-related concerns. The BFP Modernization Act will be fully implemented to ensure more responsive fire protection services across the country.³⁴ A program to enhance citizen volunteerism in disaster response will be established, with resources and training support and using the AFP Reservists Act³⁵ and the National Service Reserve Corps³⁶ as platforms. The assessment of the exposure and vulnerabilities of LGUs to disaster risks will be expanded. Likewise, capacity building on public safety and disaster preparedness will be intensified. Local and international cooperation in humanitarian assistance and disaster response operations, joint exercises, training activities, and information sharing will be scaled up.

Protect critical infrastructure, strategic assets, and natural resources

Scenario-based planning, preparedness, and response mechanisms, as well as the protocols to protect critical infrastructure and assets, will be enhanced. Capacity to respond and manage maritime-based disasters like oil spills and hazardous and noxious substances spills will be improved by mobilizing coastal barangay information networks and *Bantay-Dagat* volunteer organizations, and by establishing marine pollution centers in strategic locations. Meanwhile, existing mechanisms and procedures to protect critical infrastructure assets will be strengthened³⁷ through improved coordination and capacity of various government agencies and LGUs in critical infrastructures mapping, vulnerability scanning, and threat assessment.

Strengthen security and resilience of the Philippine cyberspace

To strengthen security against cyberattacks on critical information infrastructure (CII), the government will: (a) capacitate CII sectoral cybersecurity emergency response teams; (b) develop a manual of operations and standard protocols on cybersecurity for public and private institutions; (c) ensure interoperability and intelligence fusion of security and law enforcement agencies in tracking and monitoring online transactions of criminal elements, terrorist groups, and illegal drug traders; (d) strengthen capacity and upgrade technical skills of strategic

agencies on cybersecurity; (e) strengthen cyber defense component in the modernization of the AFP; (f) forge stronger collaboration with local and international partners; (g) institute minimum information security and cybersecurity standards for CII and government agencies; (h) develop

cybersecurity curriculum in academic and technical education institutions; and (i) institute a national policy framework on cybersecurity. In addition, the country will optimize space science and technology applications through the Philippine Space Agency (PhilSA).³⁸

Outcome 4: Territorial integrity and sovereignty upheld and protected

Strengthen advocacy on respect for rules-based regime in the regional and international community

Particularly for territorial sovereignty concerns and protection of fisherfolk in territorial waters, the government will advocate the 2016 PCA ruling favoring the Philippine position (*See Chapter 5*). The completion of the code of conduct in the South China Sea will be pursued. A whole-of-nation approach will be adopted in influencing local, regional, and international bodies.

Pursue greater international and regional dialogues and cooperation

Bilateral, minilateral, and multilateral diplomatic arrangements in promoting regional security will be strengthened and expanded, while greater people-to-people dialogue among allied states will be promoted.

Develop a modern, credible, and self-reliant defense force

Capacity and materiel upgrade will be pursued to achieve a minimum deterrence capability of the AFP. Cooperative joint military and intelligence exercises with

friends and allies will be strengthened, while defense cooperation arrangements, such as the Mutual Defense Treaty and Visiting Forces Agreements, will be maximized by involving other security institutions in the training exercises.³⁹

The self-reliant defense posture program will be revived and supported to rebuild the defense industry. Technical cooperation will be pursued in areas of capacity building and technology development in defense science and industry, including space science and technology applications. Monitoring and information systems and technical interoperability of maritime security agencies will be harmonized to ensure a holistic and integrated policy on maritime domain.

Strengthen capacity of institutions in security assessment, operations, and response relative to geopolitical developments

The government will increase the capacity of security institutions on maritime security and territorial defense, particularly on intelligence and counterintelligence operations, and intensify international cooperation. Policies relative to the role of the AFP, PNP, and other relevant security agencies in internal

security operations will be reviewed. Moreover, the ability of relevant agencies to implement rescue and expatriation operations

of overseas Filipinos in difficult and/or dangerous situations will be enhanced.

Cross-cutting Strategies

Cross-cutting strategies will be carried out to support the sectoral outcomes and priorities.

Sustain compliance of LGUs to good governance principles and of security institutions on human rights and rule of law

Good governance and the protection and promotion of human rights directly contribute to peace-building, conflict prevention, and post-conflict recovery. The government will foster efficient, inclusive, and accountable LGUs to boost the confidence of people toward the government and human rights-based security institutions in strengthening partnership with communities. In addition, better reward schemes, intensified mainstreaming efforts, and appropriate penalties on violators will be put in place.

Ensure gender mainstreaming and protection of vulnerable groups in conflict-affected communities

Affirmative action will be done to protect and promote women and gender rights; and safeguard the welfare of vulnerable groups, including children, youth, elderly, PWDs, and internally displaced persons, during conflict situations and post-conflict recovery.

Mobilize a broad-based constituency for peace

Peace education will be integrated in formal and informal learning platforms, as well as a sustained culture of peace campaigns. The establishment of a National Peace Institute under the Office of the Presidential Adviser on Peace, Reconciliation and Unity (OPAPRU) will be pursued to institutionalize and sustain the gains of the peace process. A strategic communication plan will be carried out to increase public awareness on peace and security strategies of the government, while an inclusive communication plan will be initiated to entice members of armed threat groups to abandon a life of violence and return to civilian life.

Legislative Agenda

Table 13.1.1 contains priority bills for the 19th Congress during the Plan period to ensure peace and security.

Table 13.1.1 Legislative Agenda to Ensure Peace and Security

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
National Defense Act	This aims to amend Commonwealth Act No. 1 (National Defense Act of 1935) by streamlining and further professionalizing the Department of National Defense (DND) and its bureaus.	DND
Mandatory Citizens' Service Training Act	This aims to unify the three training programs of the current National Service Training Program into a single and comprehensive citizens' civil and military training in the first two years of a baccalaureate degree program.	DND
Self-Reliant Defense Posture Act	This aims to strengthen the capabilities of the DND to support the development of the defense industry and provide incentives for firms to participate in the effort.	DND
Philippine Maritime Zones Act	This aims to establish maritime zones and sovereignty jurisdictions where maritime rights can be exercised against unnecessary and dangerous maneuvers of foreign vessels traversing and entering the Philippine territory.	National Coast Watch Council (NCWC)
Philippine Archipelagic Sea Lanes Act	This aims to designate sea lanes and air routes for safe and innocent passage consistent with the provisions of the United Nations Convention on the Law of the Sea to prevent arbitrary international passage in the Philippine archipelago.	NCWC
Critical Information Infrastructure Protection Act	This aims to protect CII by prescribing minimum standards for compliance by government agencies.	Department of Information and Communications Technology (DICT)
Cybersecurity Act	This aims to strengthen the cybersecurity workforce in the country and strengthen capabilities of the DICT by providing it with regulatory authority over CII and the cybersecurity industry.	DICT
Enabling law creating an autonomous region in the Cordilleras	This will provide an operational basis for future convergence efforts between local government units, national government agencies, and stakeholders in the organization of the Cordillera as an autonomous region.	OPAPRU

Results Matrix

Table 13.1.2 contains year-by-year and end-of-plan indicators and targets that the government seeks to attain within each of the outcomes during the Plan period to ensure peace and security.

Table 13.1.2 Results Matrix: Ensure Peace and Security

INDICATORS	BASELINE (YEAR)	ANNUAL PLAN TARGETS		MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY	REPORTING ENTITY
		ANNUAL	EOP			
Subchapter 1 Intermediate Goals: Ensure Peace and Security						
Outcome 1: Protection and development of conflict-affected and conflict-vulnerable communities sustained						
Living conditions in conflict-affected and conflict-vulnerable communities improved						
Percentage of Barangay Development Program beneficiary-barangays provided with socioeconomic interventions	822 beneficiary barangays (2021)	100% of barangays provided with interventions by 2023	100%	National Task Force to End Local Communist Armed Conflict (NTF-ELCAC) progress reports	NTF-ELCAC, DILG, LGUs	NTF-ELCAC
	1,406 beneficiary barangays (2022)	100% of barangays provided with interventions by 2024	100%	NTF-ELCAC progress reports	NTF-ELCAC, DILG, LGUs	NTF-ELCAC
Percentage of implementation of peace agreements: Comprehensive Agreement on the Bangsamoro	43% (2021)		100%	OPAPRU Report	BARM, OPAPRU	OPAPRU
Percentage of implementation of peace agreements: 1996 Final Peace Agreement with the Moro National Liberation Front	50% (2021)		100% (by 2025)	OPAPRU Report	OPAPRU	OPAPRU
Percentage of implementation of peace agreements: 2000 Peace Agreement with the RPMP-RPA-ABB	44% (TPG, 2021) 0% (NDCG, 2021)		100% (by 2023) 100% (by 2024)	OPAPRU Report	OPAPRU	OPAPRU
5-Year Normalization Program with the Government of the Philippines (GPH)-CBA-CPLA Peace Process	52% (2021)		100% (by 2024)	OPAPRU Report	OPAPRU	OPAPRU
Outcome 2: Quality of life of people safeguarded from criminality						
Average monthly index crime rate reduced (Sustainable Development Goal [SDG] indicator) ⁴⁰	3.01 (2021)	Decreasing	Below baseline target	Crime Incident Reporting and Analysis System (CIRAS)	Philippine National Police (PNP)	PNP
Proportion of families that feel safe walking alone in the community at night (SDG indicator)	89.8% (2020)	Increasing	Above baseline target	APIS	PNP, LGUs	Philippine Statistics Authority
Outcome 3: Protection and safety from hazards and other threats ensured						
Percentage of cyber incident reports processed and/or closed and remediated	80% (2022)	Increasing	Above baseline target	DICT Reports	DICT	DICT
Outcome 4: Territorial integrity and sovereignty upheld and protected ^a						
Maritime domain awareness improved						
Air domain awareness improved						

^a Indicators for internal monitoring only; not for publication.

Subchapter 13.2 Enhance Administration of Justice

A stable and accountable justice system is essential in achieving economic transformation. In such a system, the needs and expectations of litigants are reliably managed within definite timeframes by impartial actors, supported by a technologically adaptive and disaster-resilient infrastructure. The system entails the provision of cost- and time-effective dispute resolution mechanisms, whether traditional or alternative, which inspire faith and confidence among stakeholders.

Efficient justice administration is realized when stakeholders from all sectors of society, including the business sector, can resolve legal disputes within the justice system. When there is confidence in the justice system, more entrepreneurs and business leaders are willing to expand their businesses through investments in assets and people.⁴¹

Assessment and Challenges

A well-functioning justice system contributes to creating a healthy business environment.⁴² Literature has shown that there is strong correlation between the efficiency of the justice system and commercial and entrepreneurial activity.⁴³ If uncertainties exist in how economic disputes are resolved, capitalists may shy away from investing their money for fear that aside from known business risks, they will also have to allocate resources on costly and delayed litigation.

The overall percentile rank of the Philippines in cross-country indices remains low. The country failed to meet the 2022 targets in the fundamental rights (29.00 vis-à-vis 15.71), civil justice (27.00 vis-à-vis 25.71), and criminal justice (29.00 vis-à-vis 16.43) sub-indicators under the World Justice Project.⁴⁴ It likewise failed to meet the 2021 target in rule of law index (50.00 vis-à-vis 26.92) under the Worldwide Governance Indicators.⁴⁵

In 2020, the Philippines posted an improvement in the Doing Business Report of the World Bank from 124th to 95th out of 190 economies,⁴⁶ It scored high in terms of starting a business, dealing with construction permits, and protecting minority investors. However, it lagged in terms of enforcing contracts and resolving insolvency, especially among its ASEAN counterparts.⁴⁷

Nonetheless, the Philippines has enacted and amended legislations and regulations toward improvement in the justice system. These include RA 11576,⁴⁸ which amended the jurisdictions of the First Level and Second Level Courts in civil cases; and RA 10951,⁴⁹ which updated the penalties for offenses based on pecuniary value. Moreover, the Implementing Rules and Regulations of the Good Conduct Time Allowance Law and the 2018 New Bail Bond Guide of the Department of Justice (DOJ) have also been implemented.

The Judiciary has also issued guidelines to ensure that the disposition of actions and proceedings is just, prompt, and inexpensive. Among these are the 2019 Amendments to the 1997 Rules of Civil Procedure, the 2019 Amendments to the 1989 Revised Rules on Evidence, and the Rules on Expedited Procedures in the First Level Courts.

Despite these positive developments, several policy reforms and key legislations remain unattained.

Fragmentation of the criminal justice system remains a challenge. The criminal justice system in the Philippines has five pillars—law enforcement, prosecution, the courts, correction, and the community. Its administration is shared by the Executive and Judiciary branches of government, resulting in a fragmented system. It has achieved better coordination through the Justice Sector Coordinating Council (JSCC), which has facilitated thoughtful identification of common problems and development of sector-based solutions in selected areas called Justice Zones. At present, nine Justice Zones have been established in Quezon City, Cebu City, Davao City, Angeles City, Bacolod City, Naga City, Calamba City, Balanga City, and Baguio City. In these Justice Zones, six information systems have been operationalized, leading to enhanced delivery of swift and fair justice.⁵⁰

Backlogs in resolving cases, delays caused by inefficient practices, and aging persist. Both the National Prosecution Service (NPS) of the DOJ and the Supreme Court of the Philippines (SC) have adopted reforms in case decongestion and delay. The NPS undertook a decongestion program that

cleared backlogs in the most congested prosecution offices. Meanwhile, the SC amended the 1997 Rules of Civil Procedure, allowing an electronic mode of filing, service of pleadings, and court submissions. The National Justice Information System (NJIS), which has been implemented to address case delays particularly in criminal actions, is also being expanded to include the Single Carpeta System (Inmate Management Information System) and is laying the groundwork for a unified penology system.

However, more measures to prevent docket congestion should be put in place. Based on the 2021 data from the NPS, only 92 percent of all criminal complaints have completed preliminary investigation. Meanwhile, the judiciary has achieved only 93 percent clearance rate. These measures include, among others, the nationwide rollout of the Prosecution Case Management System, streamlining of court rules and procedures, strengthening of case build-up between the prosecution and the law enforcers, and review of human resource requirements. Procedures in the justice sector should likewise be automated and digitalized to expedite proceedings and for data accuracy and consistency.

Limited resources weaken the justice sector.

The judiciary has consistently received less than 1 percent of the annual budget since 2003,⁵¹ leading to compounded problems including shortage of courts and insufficient human resources particularly in key justice sector positions. This has compelled the judiciary to designate judges in interim capacities or pairing them in vacant branches. In the meantime, prosecutors and public

attorneys are assigned to two or more courts at a time despite the existence of laws prescribing the ideal ratio (1:1) of Prosecutor and Public Attorney's Office (PAO) Lawyer to courts. A sector approach, which entails close coordination among justice sector institutions, agencies, and actors, is thus necessary to determine and maintain the appropriate ratio of justice sector professionals to every court.

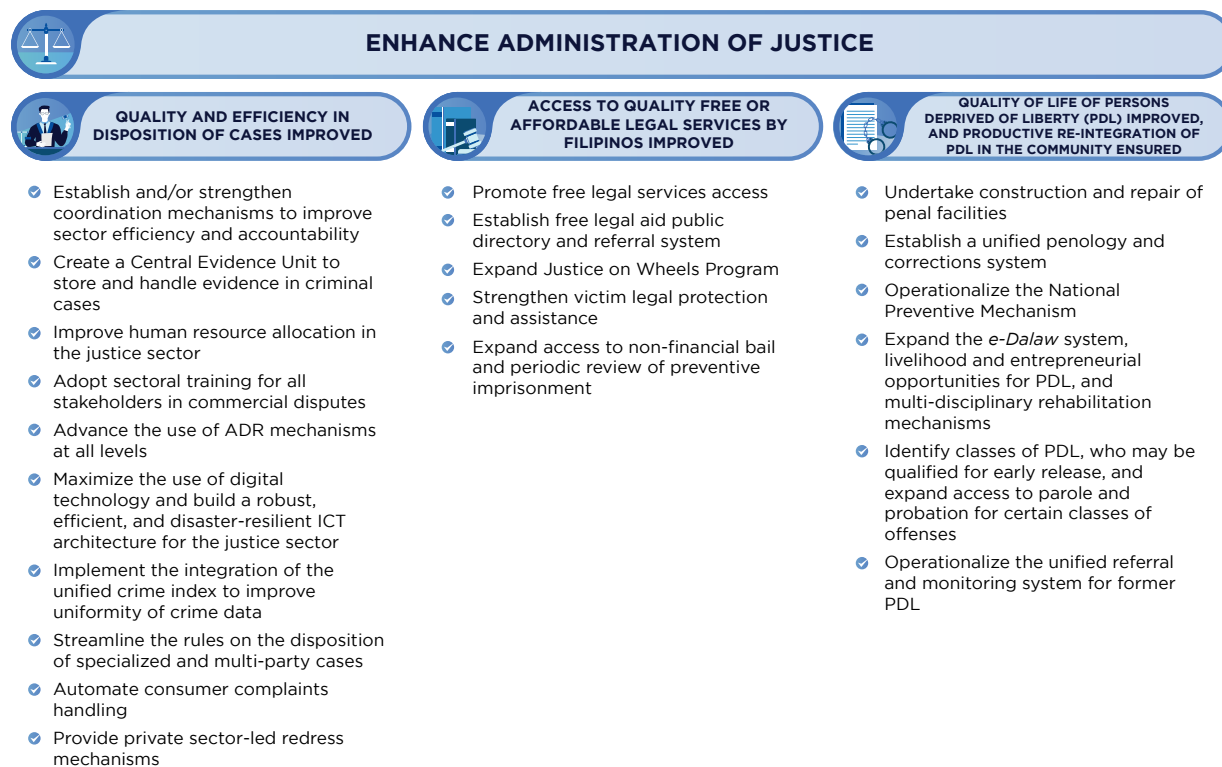
Low public confidence in the justice system undermines the rule of law. While justice sector actors generally received good net trust ratings in the 2021 Justice Needs Survey,⁵² public perception on the justice sector remains rather negative. As a result, many ordinary Filipinos tend to turn to media personalities and other non-legal sources such as online forums and even social media to air their grievances and attempt to resolve them.

Strategy Framework

The strategy framework in Figure 13.2.1 emphasizes the need for coordinated action to enhance justice administration by increasing case disposition quality and

efficiency and improving the plight of persons deprived of liberty (PDL) and other vulnerable groups.

Figure 13.2.1 Strategy Framework to Enhance Administration of Justice



Strategies

Outcome 1: Quality and efficiency in disposition of cases improved

Establish and/or strengthen coordination mechanisms to improve sector efficiency and accountability

The JSCC will launch a new Justice Zone per quarter within the plan period, while existing Justice Zones expand functions to include monitoring and assessment of their coordination mechanisms, implementation of reporting to the JSCC, and sharing of best practices. The DOJ, together with relevant law enforcement agencies or through the JSCC, will streamline criminal investigation, prosecution, and case management processes, including those for heinous crimes and illegal drugs. RA 10867,⁵³ or the National Bureau of Investigation (NBI) Reorganization and Modernization Act, will be fully implemented. It will improve scientific investigation capabilities, strengthen witness and whistleblower protection, and other special enforcement and protection programs, to increase investigative and prosecutorial effectiveness.

Justice Hubs will also be established in selected LGUs. These will serve as a one-stop venue for criminal justice and have an infrastructure that houses courts, prosecutors, public attorneys, the police, and a jail with classified housing for surrendered or apprehended drug offenders.

Moreover, legislative and policy reforms will be pursued to institutionalize cooperation between prosecutors and law enforcers such

as the PNP and NBI, among others. This cooperation will facilitate case build-up through proper collection, preservation, and presentation of evidence, and will ensure successful prosecution, inclusive of legal and technical guidance.

Create a Central Evidence Unit to store and handle evidence in criminal cases

Relevant justice sector agencies will pursue the establishment of a Central Evidence Unit as a main component of the Justice Hubs, which will serve as the main repository of all evidence in criminal cases including storage of electronic evidence.⁵⁴ To address inefficient processing of evidence, an integrated system handled by sector-representative personnel will be put in place. This system will be used for electronic and physical validation and documentation of evidence coming from various agencies, including from law enforcement, prosecution, and the courts.

Improve human resource allocation in the justice sector

A JSCC enabling law that adopts a sector-based approach will be enacted. This legislation will support the creation of human resource positions that cover justice sector actors in both the Judiciary and the Executive Department and will ensure the required ratio of court to prosecutor to public attorney. Sectoral human resource planning will be strengthened to facilitate timely and

coordinated creation of new positions and appointments, as well as establishment of new courts and prosecution offices, among others. Likewise, data analytics will be adopted to enhance the planning process.

Adopt sectoral training for all stakeholders in commercial disputes

A sector-based approach will be adopted in the settlement of commercial disputes, which include intra-corporate cases, intellectual property cases, cases involving admiralty and maritime laws, financial rehabilitation and liquidation of insolvent debtors, competition cases, and cybercrime cases, among others. It will support the conduct of sectoral capacity building and information exchange activities to facilitate case disposition with the least delay, while still providing all relevant information required by the courts that are in the control and custody of various agencies in the Executive Department.

Advance the use of Alternative Dispute Resolution mechanisms at all levels

The SC will revisit the Rules of Court to include a filtering mechanism that will require litigants to first exhaust all available Alternative Dispute Resolution (ADR) mechanisms before judicial recourse. Relevant to this, the Office for Alternative Dispute Resolution (OADR) will continue to undertake capacity building, and advocacy and informative programs on different ADR mechanisms, including the *Katarungang Pambarangay*. It will update, harmonize, and improve the Philippine legal framework to strengthen the use of ADR in the public

and private sectors in accordance with international standards.

Moreover, the *Katarungang Pambarangay* or the Barangay Justice System will be explored to consider expansion of its existing jurisdiction, which is currently limited to disputes involving parties that reside within the same city or municipality or in adjoining cities or municipalities. The exemption of criminal cases involving offenses punishable by a maximum penalty of imprisonment exceeding one year or a fine over PHP5,000 from the *Katarungang Pambarangay* will also be revisited to ensure alignment with RA 10951, which adjusted the fines and the property values on which penalties are based under the Revised Penal Code.

Maximize the use of digital technology and build a robust, efficient, and disaster-resilient ICT architecture for the justice sector

Robust internet infrastructure will be established within the justice sector to further support online hearings and case management systems. The courts will be automated, and personnel will be upskilled to support a suite of digitalized services, such as video conferencing hearings. The NJIS will be fully implemented through the Single Carpeta System as the first step in information sharing among justice sector actors. It will be expanded eventually to include the Judiciary. To facilitate full implementation of the NJIS, the government will allocate sufficient financial and human resources for digital transformation initiatives across the justice sector, which include the implementation of the Criminal Justice Information Exchange

(CJiX) as the platform that will bridge the NJIS and the eCourt System (*See Box 13.2.1*).

In conjunction with the eCourt System and NJIS, the justice sector will also adopt

a simplified system of court-bound and court-issued papers, where templates are made available in the eCourt system portal and publicly, through the Trial Courts Automation Project.

Box 13.2.1 The National Justice Information System and the Criminal Justice Information Exchange

The National Justice Information System (NJIS)—led by the Department of Justice (DOJ) and supported by the Department of Information and Communications Technology (DICT), and funded by Congress since 2012—is a project that involves the development and setup of core agency information management systems and inter-agency exchange mechanisms. The NJIS is composed of two discrete clusters: the Law Enforcement Cluster composed of the DOJ National Prosecution Service, PNP, NBI, Philippine Drug Enforcement Agency, Dangerous Drugs Board, and Bureau of Immigration; and the Corrections Cluster involving the Bureau of Jail Management and Penology (BJMP); Bureau of Corrections (BuCor); Board of Pardons and Parole; and Parole and Probation Administration.

The Criminal Justice Information Exchange (CJiX) will be established linking all justice sector agencies. Each agency will develop its own ICT system, which will then be linked to the CJiX. This will build the structure necessary to facilitate interchange of crime-related data pertinent to civil actions and special proceedings, such as fraud in commercial transactions, unfair competition, infringement on intellectual property rights, and infrastructure and land disputes. Agencies at the core of this network are the DOJ, DILG, and the judiciary. A key feature of the CJiX is the harmonization of criminal definitions and procedures, as well as consensus on data capture, storage and retrieval.

Implement the integration of the unified crime index to improve uniformity of crime data

A unified crime index database will be utilized in all applicable processes to support the rollout of technology-based case management solutions. All forms or logs that list crimes will follow the exact nomenclature of the index database that is compliant with the International Classification of Crimes for Statistical Purposes, which is the

international standard for crime statistics. The DOJ and University of the Philippines Law Center, in partnership with the DILG and the SC, will conduct capacity building on the use of the index database, including its integration to existing data-related processes.

Streamline the rules on the disposition of specialized and multi-party cases

The rules on land disputes will be streamlined to impose the mandatory consolidation of causes of action relating to the same real property, whether for possession, ownership, or damages. The rule on expropriation will also be clarified to ensure that courts are compliant with issuing partial judgments at the different stages of an expropriation case. The jurisdiction of the National Commission on Indigenous Peoples on claims of indigenous peoples and indigenous cultural communities on ancestral domains will also be considered. Furthermore, the SC will study the need to designate special courts on land dispute settlement.

To handle multi-party cases, special rules of procedure will be crafted. The procedures will be simplified to give access to those who seek redress in mass injury cases, whether through civil or criminal proceedings.

Automate consumer complaints handling

The Department of Trade and Industry (DTI) will develop and implement the Philippine Online Dispute Resolution System, which will serve as a web-based consumer complaint portal and automate the entire consumer complaints-handling process of the government. This will be done by interlinking all the member agencies of the Consumer Network, a collective of government agencies with consumer protection functions.

Provide private sector-led redress mechanisms

Through the *Bagwis* Awards Program of the DTI, business owners will be encouraged to establish consumer welfare desks or an equivalent customer relations office inside their establishments. These desks or offices will provide a mechanism for the speedy resolution of consumer complaints, among other parameters that seek to provide immediate redress and at the same time prevent additional cases for the court.

Outcome 2: Access to quality free or affordable legal services by Filipinos improved

Promote limited law practice

The government will fully implement the Revised Law Student Practice Rule under Rule 138-A of the Rules of Court for the under-privileged to address scarce legal services. Under said rule, law schools are required to establish legal aid clinics and provide accredited law students the opportunity to assist Filipinos who do not have representation in court.

Establish free legal aid public directory and referral system

The SC, through the Strategic Plan for Judicial Innovations 2022–2027, will strengthen legal aid initiatives as among its primary objectives for ensuring access to justice. In particular, the SC, together with the DOJ, PAO, Integrated Bar of the Philippines, Philippine Association of Law Schools, and other legal aid clinics will map available legal aid services

per locality. Moreover, a database of free legal aid providers will be available online to ensure that law enforcers and detainees have immediate access, pursuant to the United Nations Principles and Guidelines on Access to Legal Aid in Criminal Justice Systems.

To ensure the expansion of legal services, the DOJ will also establish the DOJ Action Center in the regions. These action centers will act on complaints, requests for legal assistance, and queries of walk-in clients.

Expand the Justice on Wheels Program

The SC will expand the scope of the Justice on Wheels Program to address specialized issues like tenorial disputes in agrarian reform, and climate and environmental cases. Bringing the courts closer to litigants will ensure speedy resolution of disputes in tenorial arrangements and environmental actions.

Strengthen victim legal protection and assistance

Access to justice will be made more inclusive especially among marginalized sectors such as women, children, PWDs, senior citizens, and indigenous peoples through victim-centered, child-friendly, and gender-sensitive assistance mechanisms. Coordination among the DOJ, the PNP, and the Department of Social Welfare and Development (DSWD) will be strengthened to address fragmented mechanisms in existing witness protection and victim assistance programs. The DOJ will intensify the Victims Compensation Program by pursuing the amendment of RA 7309. This amendment will increase the compensation for victims of unjust imprisonment and violent

crimes and improve the accessibility and the administration of the program.

At the same time, the Commission on Human Rights (CHR) will intensify its efforts to improve access to justice by: (a) empowering the poor and marginalized to seek responses and remedies for injustice; (b) improving legal protection, awareness, and aid; (c) improving civil society and parliamentary oversight; (d) addressing human rights violations in the justice sector; (e) strengthening linkages between formal and informal structures; and (f) monitoring and evaluating such interventions.

Expand access to non-financial bail and periodic review of preventive imprisonment

The Recognizance Act of 2012 (RA 10389)⁵⁵ will be revisited to expand the application of recognizance. An automated notification system will likewise be implemented and integrated in the eCourt system. This notification system will alert the accused, who are availing of non-financial bail, of approaching court dates.

The courts will periodically review all criminal cases involving preventive imprisonment to safeguard the rights of preventively imprisoned persons against unreasonable prolonged detention. The review will be reinforced by automating the computation of time served by the detainee, integrating an alert system in the eCourt system that will prompt the judge on the release date of the detainee.

Outcome 3: Quality of life of PDL improved, and productive re-integration of PDL in the community ensured

Undertake construction and repair of penal facilities

The government will expand existing penal facilities and establish new ones to house the inmate population adequately. Construction and repair of penal facilities will adhere to international standards⁵⁶ to guarantee dignity and health of detainees, as well as support effective rehabilitation and social re-integration of PDL. Likewise, concerned agencies will adopt digitalization of jail records. Toward this end, the DOJ, DILG, and the LGUs will also secure the required annual budgetary allocation and seek the assistance of the Department of Public Works and Highways and the DICT to ensure uninterrupted project implementation.

Establish a unified penology and corrections system

A single agency will be created to manage all seven national prisons and 926 city, district, municipal, and provincial jails, as well as administer rehabilitation programs for convicted offenders. This new agency and the courts will work together through information sharing to guarantee the timely release of detainees or convicted offenders.

Operationalize the National Preventive Mechanism

Champions in Congress will be tapped to enact a law that will comply with the UN Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (UN CAT) and its Optional Protocol (OPCAT). The UN CAT and OPCAT require the formation of visiting

bodies for the prevention of torture and other cruel, inhumane, or degrading treatment of punishment, as well as inspect the treatment and living conditions in detention and penal facilities.

Expand the *e-Dalaw* system, livelihood, and entrepreneurial opportunities for PDL, and multi-disciplinary rehabilitation mechanisms

The *e-Dalaw* system will be expanded to afford unhampered access to justice and enforce social reintegration. Infrastructure to support video conferencing for visitations and hearings will be established to reduce possible risks associated with in-person contact, such as smuggling of prohibited items.

To provide livelihood opportunities for PDL, the DTI will continue its product development and marketing trainings for PDL who are skilled in handiwork. These trainings will provide PDL opportunities to earn their keep and for their families. The government will also provide tax incentives or other non-monetary incentives and recognition to employers and business establishments that will provide capacity-building, livelihood, or employment, as well as entrepreneurial opportunities to PDL. It will also conduct a study to determine whether expungement of criminal records adopted in other jurisdictions is viable to remove the stigma associated with incarceration.

A law that unifies the holistic reintegration strategy of formerly incarcerated offenders will be enacted, involving a multi-disciplinary program that ensures the successful rehabilitation of convicted offenders. The program will be directed toward improving the offenders' behaviors, skills, mental health, social functioning, and access to education and employment.

Identify classes of PDL who may be qualified for early release and expand access to parole and probation for certain classes of offenses

The Revised Penal Code, the Indeterminate Sentence Law, and the Probation Law will be reviewed and revised to allow convicted offenders to avail of the benefits provided by said laws. The revision, however, will depend on data from the DOJ regarding which parolees and pardonees are highly unlikely to be recommitted to prison on account of recidivism. The classes of repeat offenders (recidivist, habitual delinquent, *reiteracion*, and quasi-recidivist) will be simplified.

Distinctions in our penal laws with respect to heinous, violent, and non-violent offenders, rather than a simplistic penalty-based classification, will be considered.

Operationalize the unified referral and monitoring system for former PDL

The government will assess post-incarceration outcomes in the form of facilities for psychiatric support and supportive residential housing, such as halfway houses. It will give due consideration to certain classes of offenders. For instance, in drug cases, the rehabilitation program will be designed to address underlying problems of substance abuse that might lead to re-offending. Furthermore, the functions of the Barangay Anti-Drug Abuse Council will be expanded to include monitoring of former PDL to assist in their complete rehabilitation and reintegration into communities.

Legislative Agenda

Table 13.2.1 contains priority bills for the 19th Congress during the Plan period to enhance the administration of justice.

Table 13.2.1 Legislative Agenda to Enhance Administration of Justice

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Justice Sector Coordinating Council (JSCC) enabling law	This aims to formally recognize the JSCC as a government body, with a permanent secretariat, to be charged with institutionalizing coordination mechanisms in the justice sector.	DOJ and DILG as JSCC principals
Justice Sector human resources rationalization	This adopts a sector-based approach to creating positions in the justice sector by matching the creation of courts with corresponding increases in the number of prosecutors, public attorney's positions, etc.; and creates more justice sector positions to deal with workload and case congestion.	DOJ, PAO
Expand <i>Katarungang Pambarangay</i>	This will reassess exemptions of cases that may be brought before the <i>Lupong Tagapamayapa</i> , particularly with respect to residence and thresholds of criminal cases.	DILG
Unified Penology System	This aims to unify all penal institutions under one agency, with close collaboration among courts for the disposition of detention prisoners and convicted offenders.	BuCor, BJMP, DILG
Commission on Human Rights (CHR) as lead agency for the National Preventive Mechanism	This will strengthen the CHR as a National Human Rights Institution, compliant with the requirements of the United Nations Paris Principles, United Nations Convention against Torture, and Optional Protocol to the Convention Against Torture.	CHR
Unified Reintegration Strategy	This creates a comprehensive and holistic program for the reintegration of PDL post-incarceration, including employment opportunities in the public sector and providing incentives for the private sector that will accept PDL as employees.	DOJ (lead), BJMP (lead), DTI, DOLE, DSWD
Strengthening and/or modernization of the Parole and Probation Administration (PPA)	This will strengthen human resource allocation and improve or promote the social, moral, and economic well-being of probation and parole workers to address the disproportionate number of probation and parole officers vis-à-vis the applicants, to ensure efficient and effective service delivery.	PPA

Results Matrix

Table 13.2.2 contains year-by-year and end-of-plan indicators and targets that the government seeks to attain within each of the outcomes during the Plan period to enhance the administration of justice.

Table 13.2.2. Results Matrix: Enhance Administration of Justice

INDICATORS	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Subchapter 2 Intermediate Goal: Enhance Administration of Justice									
Outcome 1: Quality and efficiency in disposition of cases improved									
Quality in disposition of cases improved									
Case completion period in judicial dockets improved ^a	86	87	88	89	90	91	92	SC Annual Report	SC

INDICATORS	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Percentage of successful prosecution improved (convictions vis-à-vis acquittal) ^a	91.05 (2021)	91.05	91.07	91.09	91.11	91.13	91.15	DOJ Annual Report	DOJ
Completion rate of cases handled improved	40.74 (2021)	41.24	42.44	43.64	45.24	46.84	48.44	Public Attorney's Office (PAO) Annual Report	PAO
Efficiency in disposition of cases improved									
Disposition rate for all court levels improved	39 (2021)	41	43	45	47	49	51	SC Annual Report	SC
Percentage of criminal complaints resolved on preliminary investigation improved	92.29 (2021)	92.29	92.30	92.31	92.32	92.33	92.34	DOJ Annual Report	DOJ
Clearance rate of all courts improved	93 (2021)	95	97	99	101	103	105	SC Annual Report	SC
Settlement rate of Alternative Dispute Resolution (ADR) cases improved									
Settlement rate of ADR cases by the <i>Katarungang Pambarangay</i> (KP) improved	77 (2021)	79	80	81	82	83	84	Department of the Interior and Local Government (DILG) KP Case Statistics Report	DILG, Office for Alternative Dispute Resolution (OADR)
Settlement rate of ADR cases by the judiciary improved ^c	51 (2021)	53	55	57	59	61	63	SC Annual Report	SC
Settlement rate of ADR cases by the executive branch improved	48.49 (2021)	50	51	52	53	54	55	OADR	OADR
Outcome 2: Access to quality free or affordable legal services by Filipinos improved									
Public attorney-to-court ratio improved	1:2 (2021)	1:1	1:1	1:1	1:1	1:1	1:1	PAO Annual Report	PAO
Prosecutor-to-court percentage ratio improved	45.6	45.6	55	73	82	91	100	DOJ Plantilla	DOJ
Outcome 3: Quality of life of PDL improved, and productive re-integration of PDL in the community ensured									
Congestion rate in jail and prison facilities reduced									
Average congestion rate in jail facilities reduced	390 (July 2022)	356	341	328	315	302	290	Bureau of Jail Management and Penology (BJMP) data	BJMP
Congestion rate in prison facilities reduced	304 (July 2022)	328	291	302	313	252	262	Bureau of Corrections (BuCor) data	BuCor
Percentage of parolees and pardonees not recommitted into prison due to reoffending or other infractions improved	98.94 (2021)	98.94	98.95	98.96	98.98	99	99.02	DOJ Open Government data	BuCor

^a Percentage of pending cases that are less than five years old from filing.

^b Prosecution success rate is computed as total conviction/total conviction and acquittal.

^c This represents the total cases mediated by the judiciary mechanisms, as follows: court-annexed mediation, mobile court-annexed mediation, appellate court mediation, judicial dispute resolution, and tax cases before the Court of Tax Appeals.

- ¹ These are the 1976 Tripoli Agreement and 1996 Final Peace Agreement with the Moro National Liberation Front (MNLF); the ceasefire agreements with the CBA-CPLA in 1986 and the RPMP-RPA-ABB in 2000; the Framework Agreement on Bangsamoro in 2012; and the Comprehensive Agreement on Bangsamoro in 2014 with the Moro Islamic Liberation Front (MILF).
- ² Presidential Communications Office (PCO). 2021. RA 11593: An Act Resetting the First Regular Elections in the Bangsamoro Autonomous Region in Muslim Mindanao, Amending for the Purpose, Section 13, Article XVI of RA No. 11054, otherwise known as the "Organic Law For The Bangsamoro Autonomous Region In Muslim Mindanao. <https://www.officialgazette.gov.ph/downloads/2021/10oct/20211028-RA-11593-RRD.pdf>.
- ³ PSA. 2022. All Economies of 17 Regions Recovered from the 2020 Pandemic and Recorded Positive Growths in 2021; CALABARZON was the Fastest Growing Region at 7.6 Percent. <https://psa.gov.ph/grdp/grdp-id/167338>.
- ⁴ PSA. 2022. Proportion of Poor Filipinos was Recorded at 18.1 Percent in 2021. <https://psa.gov.ph/poverty-press-releases/nid/167972>.
- ⁵ OPAPRU. 2021. Annual Accomplishment Report 2021: The Philippine Peace Process. <https://peace.gov.ph/wp-content/uploads/2022/07/FY-2021-OPAPP-Annual-Report.pdf>.
- ⁶ Sarmiento, B. S. 2022. "Turning MILF Camps into Productive Ecozones: Still Much Work to be Done." MindaNews. <https://www.mindanews.com/top-stories/2022/03/turning-milf-camps-into-productive-ecozones-still-much-work-to-be-done/>.
- ⁷ These include the peace agreements with the RPMP-RPA-ABB, CBA-CPLA, MNLF, and MILF.
- ⁸ Office of the Presidential Adviser on the Peace Process (OPAPP). 2019. RPA-ABB Preps Weapons for Disposition. <https://peace.gov.ph/2019/09/rpa-abb-preps-weapons-for-disposition/>.
- ⁹ OPAPP. 2020. Symbolic Destruction of CBA-CPLA Firearms Signify Firm Commitment To Genuine Peace in the Cordillera. <https://peace.gov.ph/2020/10/symbolic-destruction-of-cba-cpla-firearms-signify-firm-commitment-to-genuine-peace-in-the-cordillera/>.
- ¹⁰ PAMANA is the government's peace and development convergence program, which extends development interventions to communities in isolated and hard-to-reach conflict-affected and conflict-vulnerable areas. It commenced under the administration of former President Benigno S. Aquino Jr.
- ¹¹ The Barangay Development Program (BDP) is a peace and development program that aims to provide socioeconomic interventions, e.g., farm to market roads, school buildings, health stations, and livelihood support to barangays cleared from CPP-NPA-NDF. The BDP was instituted under the administration of former President Rodrigo Roa Duterte. <https://www.ntfelcac.org/bdp>.
- ¹² Haim, D., M.C. Fernandez, and M. Cruz. 2019. Evaluation Report: Evaluation of the Payapa at Masaganang Pamayanan (PAMANA) Program. National Economic and Development Authority. <https://nep.neda.gov.ph/evaluations/70>.
- ¹³ OPAPP. 2021. "Philippine Peace Process Milestones Take Center Stage in Pre-SONA Forum." <https://peace.gov.ph/2021/07/philippine-peace-process-milestones-take-center-stage-in-pre-sona-forum/>.
- ¹⁴ Support to beneficiaries include scholarships, health insurance, educational assistance, livelihood support.
- ¹⁵ Bolledo, J. 2021. "NTF-ELCAC Releases 16 billion to 812 'NPA-free' Barangays." Rappler.com. <https://www.rappler.com/nation/ntf-eltcac-fund-npa-free-barangays/>.
- ¹⁶ PCO. 2018. Institutionalizing the Whole-of-Nation Approach in Attaining Inclusive and Sustainable Peace, Creating a National Task Force To End Local Communist Armed Conflict, and Directing the Adoption of a National Peace Framework. <https://www.officialgazette.gov.ph/2018/12/04/executive-order-no-70-s-2018/>.
- ¹⁷ Executive Order 70, s. 2018 institutionalized the whole-of-nation approach to peace and established the NTF-ELCAC.
- ¹⁸ Caliwan, C. 2022. "PH Crime Rate Drops by 73.7% in 5 Years Under PRRD: DILG." Philippine News Agency. <https://www.pna.gov.ph/articles/1168274>.
- ¹⁹ Office of Civil Defense. 2022. The Philippines' Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 with a Short-term Review of the National Disaster Risk Reduction and Management Plan (2020–2030). National Disaster Risk Reduction and Management Council. <https://www.preventionweb.net/media/84407/download>.
- ²⁰ OPAPP. 2019. GPH-MNLF Jikiri Group Coordinating Committee Convenes to Discuss Remaining Commitments Under 1996 FPA. <https://peace.gov.ph/2019/12/gph-mnlf-jikiri-group-coordinating-committee-convenes-to-discuss-remaining-commitments-under-1996-fpa/>.
- ²¹ OPAPP. 2020. Joint GPH-MILF Facility to Ensure Protection of Decommissioned Weapons Completed. <https://peace.gov.ph/2020/02/joint-gph-milf-facility-to-ensure-protection-of-decommissioned-weapons-completed/>.
- ²² These communities include those affected by the presence of the Communist Terrorist Group and Local Terrorist Groups.
- ²³ Including the normalization of MILF camps, transformation program of MNLF communities, socioeconomic support to communities, and employment provision for former combatants.
- ²⁴ The Inter-Cabinet Cluster Mechanism on Normalization and its member agencies are mandated to support the Normalization Program as provided for in E.O. 79, s. 2019. However, its component agencies should also be supporting the parallel transformation program of the MNLF, which will contribute to ensuring the security and stability of the region in preparation for the 2025 regional elections.
- ²⁵ MILF; MNLF; CBA-CPLA; RPMP-RPA-ABB; and CPP-NPA-NDF.
- ²⁶ Abu Sayaff Group, Maute Group, Daulah Islamiya, and Bangsamoro Islamic Freedom Fighters.
- ²⁷ These are armed groups with terroristic goal or self-serving agenda.
- ²⁸ This strategy is among the recommendations under the 2019 Evaluation of the PAMANA Program.
- ²⁹ The Transformation Program will be implemented by the LGUs, in coordination with the Armed Forces of the Philippines, to help former rebels and their families to become productive and resilient members of society.
- ³⁰ The Global Initiative Against Transnational Organized Crime. 2021. Comparison of Criminalities Between Philippines and United States. https://ocindex.net/country/philippines/united_states.
- ³¹ The porous borders of Southern Philippines, coupled with the debilitated border control in Sulu and Tawi-Tawi are major reasons for its utilization as a trans-shipment route of trafficking of persons and goods.
- ³² Other areas considered critical are Ilocos Sur, Dagupan City, and Bicol Province.
- ³³ Leones, C. and Caparas, D. 2003. Trafficking in Human Beings from the Philippines: A Survey of Government Experts and Law Enforcement Case Files. National Police Commission. https://www.unodc.org/pdf/crime/human_trafficking/Exec_Summary_NAPOLCOM.pdf.
- ³⁴ The Bureau of Fire Protection modernization law serve as basis in fire protection services.
- ³⁵ Presidential Communications Office (PCO). 1991. RA 7077: Citizen Armed Force or Armed Forces of the Philippines Reservist Act. <https://www.officialgazette.gov.ph/1991/06/27/republic-act-no-7077/>.
- ³⁶ PCO. 2002. Republic Act No. 9163: National Service Training Program (NSTP) Act of 2001. <https://www.officialgazette.gov.ph/2002/01/23/republic-act-no-9163/>.

- ³⁷ PNP. 2020. Memorandum Circular No. 2020-081, PNP Critical Incident Management Operational Procedure. <https://law.upd.edu.ph/wp-content/uploads/2021/04/PNP-Memorandum-Circular-No-2020-081.pdf>.
- ³⁸ PCO. 2019. Executive Order No. 95, s. 2019, Reorganizing the National Cybersecurity Inter-Agency Committee, Amending Executive Order No. 189 s. 2015 and for Other Purposes. <https://www.officialgazette.gov.ph/2019/11/15/executive-order-no-95-s-2019/>.
- ³⁹ This includes the Philippine Coast Guard and other maritime law enforcement agencies.
- ⁴⁰ Number of crime incidents per month/100,000 population.
- ⁴¹ World Bank Group. 2004. World Development Report 2005: A Better Investment Climate for Everyone. World Bank and Oxford University Press. https://ieg.worldbankgroup.org/sites/default/files/Data/reports/development_effectiveness_0.pdf.
- ⁴² WB. 2022. Pre-Concept Note: Business Enabling Environment. <https://www.worldbank.org/content/dam/doingBusiness/pdf/BEE-Pre-Concept-Note---Feb-8-2022.pdf>.
- ⁴³ Ippoliti, R., Melcarne, A., Ramello, G.B. 2015. "Judicial Efficiency and Entrepreneurs' Expectations on the Reliability of European Legal Systems." *European Journal of Law and Economics* 40 (1): 75–94.
- ⁴⁴ World Justice Project. 2022. Rule of Law Index, Country: Philippines. <https://worldjusticeproject.org/rule-of-law-index/country/2022/Philippines>.
- ⁴⁵ WB. 2022. Worldwide Governance Indicators: Philippines. <https://info.worldbank.org/governance/wgi/Home/Reports>.
- ⁴⁶ WB. 2020. Doing Business 2020. Washington, DC. <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>.
- ⁴⁷ It should be noted that data collection for the Doing Business 2020 Report, which gave a 0.0 score for the Philippines in terms of court automation, was completed in May 2019. The report states that it had no mechanism for the electronic filing of the initial complaint or electronic payment of court fees, among others. A year later, the Supreme Court issued Administrative Matter No. 19-10-20-SC, or the 2019 Amendments to the 1997 Rules of Civil Procedure, which specifically addresses the gap by allowing filing of pleadings electronically. In 2021, the Supreme Court launched the Judiciary ePayment system for small claims cases.
- ⁴⁸ PCO. 2021. RA No. 11576: An Act Further Expanding the Jurisdiction of the Metropolitan Trial Courts, Municipal Trial Courts in Cities, Municipal Trial Courts, and Municipal Circuit Trial Courts, Amending for the Purpose Batas Pambansa Blg. 129, Otherwise Known As "The Judiciary Reorganization Act Of 1980". <https://www.officialgazette.gov.ph/2021/07/30/republic-act-no-11576/>.
- ⁴⁹ PCO 2017. RA No. 10951: An Act Adjusting the Amount or the Value of Property and Damage on which a Penalty is Based, and the Fines Imposed Under the Revised Penal Code, Amending for the Purpose Act No. 3815, Otherwise Known As "The Revised Penal Code" as Amended. <https://www.officialgazette.gov.ph/2017/08/29/republic-act-no-10951/>.
- ⁵⁰ These information systems are the E-Warrant System, E-Subpoena System, the Crime Information Reporting and Analysis System, the National Police Clearance System, the Prosecution Case Management System, and the Case Information Database Management System.
- ⁵¹ Batalla, E.V., Romana, M., Rodrigo, K. 2018. "The Judiciary Under Threat." *Routledge Handbook of the Contemporary Philippines*. New York. Routledge.
- ⁵² This survey was conducted by the Social Weather Stations (SWS) and commissioned by the Governance in Justice (GOJUST) II Program. See SWS. Justice Needs Survey 2021: Final Survey Report. 3 December 2021. Quezon City.
- ⁵³ PCO. 2016. RA No. 10867: National Bureau of Investigation Reorganization and Modernization Act. <https://www.officialgazette.gov.ph/downloads/2016/06jun/20160623-RA-10867-BSA.pdf>.
- ⁵⁴ SC of the Philippines. 2001. Administrative Memorandum No. 01-7-01-SC on Rules on Electronic Evidence. <https://www.doj.gov.ph/files/rules%20on%20electronic%20evidence.pdf>.
- ⁵⁵ PCO. 2013. RA No. 10389: Recognizance Act of 2012. <https://www.officialgazette.gov.ph/2013/03/14/republic-act-no-10389/>.
- ⁵⁶ United Nations Minimum Rules for the Treatment of Prisoners or the Nelson Mandela Rules, and the United Nations Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders or the Bangkok Rules, among others.

14

Practice Good Governance and Improve Bureaucratic Efficiency



Practice Good Governance and Improve Bureaucratic Efficiency

Achieving a prosperous, inclusive, and resilient society through economic transformation requires the practice of open, efficient, and accountable governance. In this desired future, citizens, civil society organizations, and the private sector are able to access clear and capable platforms that effectively receive and respond to their agenda at all levels of government. Citizen participation is inclusive, fair, and empowering, allowing Filipinos to transact conveniently with the government through digital technologies and maximizing the benefits of an integrated and productive bureaucracy. Furthermore, public servants are agile, resilient, and accountable; and citizens trust that they will consistently perform at the highest levels of inclusion, productivity, and integrity.

This chapter presents the challenges facing good governance and bureaucratic efficiency as well as the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) participatory governance deepened; (b) public accountability and integrity bolstered; (c) government functions, systems, and mechanisms rationalized and strengthened; and (d) competent, motivated, agile, and resilient public servants supported.

Assessment and Challenges

The Philippines has made progressive improvements in its performance in various global governance indices, such as the e-Participation Index (EPI),¹ Open Budget Index (OBI),² and the Legatum Prosperity Index (LPI)-Political Accountability (See Figure 14.1).^{3,4} This may be attributed to the implementation of the Freedom of Information (FOI) policy;⁵ the National Government Portal and its subsequent provision of over 200 online government services;⁶ and the expansion of open data features of government information.⁷ Likewise, enhancements in the Philippine Government Electronic Procurement System and the increase in free public Wi-Fi hotspots nationwide⁸ have also contributed to this achievement. At the same time, full disclosure

and public financial management reforms brought about by the Seal of Good Local Governance Act of 2019 or Republic Act No. 11292, have increased transparency among local government units (LGUs).

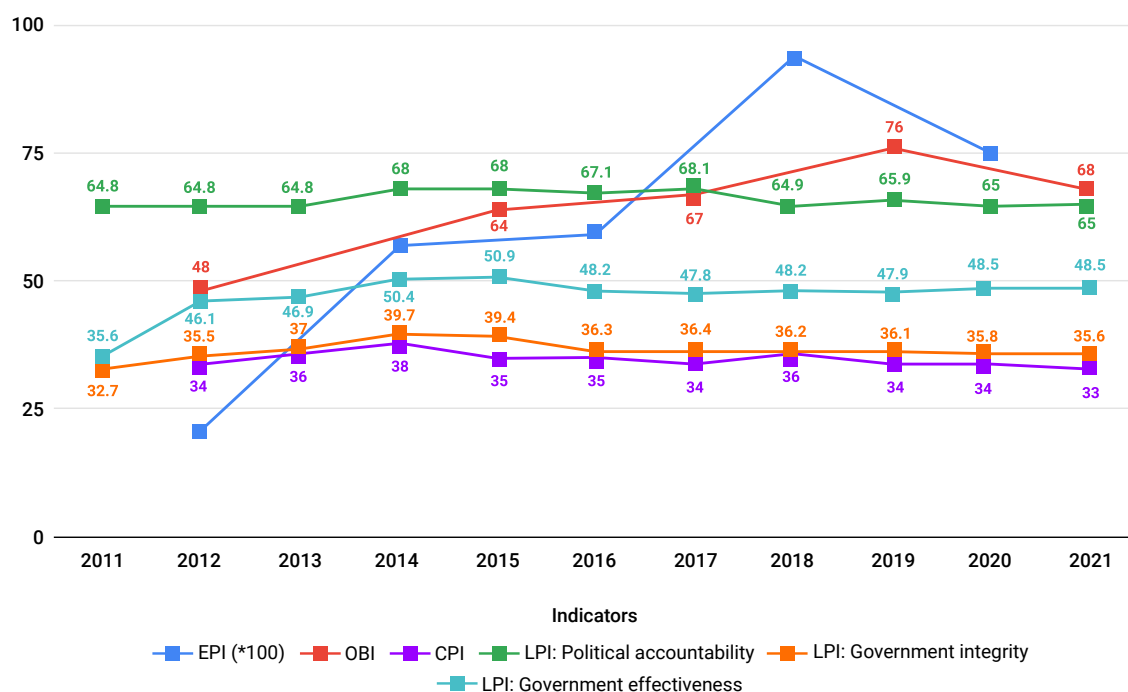
Higher rates of civil society organizations (CSO) participation were facilitated by the Fiscal Openness Program of the Department of Budget and Management (DBM), the Support for Local Governance Program of the Department of the Interior and Local Government (DILG), and the commitments made under the Philippine Open Government Partnership (PH-OGP). Similarly, the Citizens Participatory Audit (CPA) program of the Commission on Audit (COA) improved citizen participation in

the public audit process, and was recently recognized as the best of its kind in the Asia-Pacific region.⁹

However, the decline in the scores at the onset of the coronavirus disease (COVID-19) pandemic in 2020 highlighted the disruption of transparency and participatory mechanisms when the government diverted its resources to more urgent service delivery issues. Nevertheless, the continuous implementation of the Ease of Doing

Business (EODB) and Efficient Government Service Delivery (EGSD) Law, as well as reforms in public fiscal management policies, enabled the country to sustain its LPI scores despite the challenges brought about by the pandemic. In fact, the Philippines emerged as one of only four countries and the only Asian country that demonstrated an adequate level of accountability in its early COVID-19 fiscal policy responses.¹⁰

Figure 14.1 Philippines' Score in Selected International Governance Indices, 2011–2021



CPI = Corruption Perceptions Index, EPI = e-Participation Index, LPI = Legatum Prosperity Index, OBI = Open Budget Index.

Sources: United Nations United Nations (UN). UN E-Government Knowledgebase: Philippines. UN E-Government Development Database (accessed October 23, 2022). <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/134-Philippines>; International Budget Partnership (IBP). 2021. "Country Results: Philippines." Open Budget Survey 2021. <https://internationalbudget.org/sites/default/files/country-surveys-pdfs/2021/open-budget-survey-philippines-2021-en.pdf>; Transparency International. Corruption Perceptions Index 2021. <https://www.transparency.org/en/cpi/2021/index/phl> (accessed October 22, 2022); and Legatum Institute Foundation. 2021. The Legatum Prosperity Index—Changes Made Since 2020 Index and Summary of Indicator Details. https://docs.prosperity.com/3716/3643/5991/The_2021_Methodology_-_Part_3_-_Sources_And_Indicators.pdf.

The Philippines' scores in the LPI-Government Integrity¹¹ and Corruption Perceptions Index (CPI)¹² have declined in recent years. In 2021, Transparency

International¹³ reported that the Philippines, like other countries in the Asia-Pacific, may be merely mitigating petty corruption but is unable to curb grand corruption.

Moreover, Freedom House¹⁴ observed some instances when certain civil liberties were curtailed, the government's transparency and accountability, and thus, its ability to mitigate corruption are undermined. As government integrity is measured by the impartiality, openness, and accountability of its institutions, corruption may in turn, erode trust in the public sector, thereby affecting the overall effectiveness of governance.

Aside from addressing the obstacles to good governance, the government also needs to resolve structural and multifaceted challenges to bureaucratic efficiency. These include uneven resource capacities to digitalize transactions and services at both the national and local levels; issues on data privacy, sharing, coordination, and interoperability; and the limited capacity of public servants

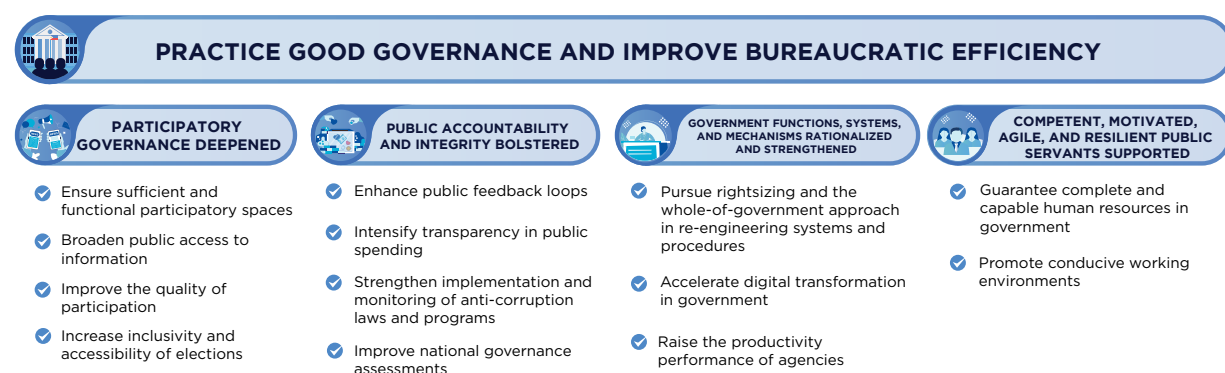
to adapt to accelerated innovations.¹⁵ The government must also anticipate and mitigate the impacts of the ongoing COVID-19 pandemic and the transition due to the Mandanas-Garcia¹⁶ ruling implementation, as both expose bottlenecks, silos, and variances in participatory practices and service delivery efficiency across different government sectors. Finally, socio-political barriers to inclusion and the meaningful participation of marginalized sectors must be strategically addressed, particularly, the gaps in implementing the Magna Carta for Women (RA 9710), the Indigenous People's Rights Act (RA 8371), the mandatory representation of the 14 basic sectors, and inclusionary policies espousing government support of CSO participation at all levels of governance.

Strategy Framework

Figure 14.2 presents the strategies to facilitate good governance and improve bureaucratic efficiency that will contribute to the enabling environment of the Philippine Development Plan (PDP) 2023–2028. The framework highlights the strategic pursuit of more

meaningful inclusion and better quality of participation, more intensified information transparency and access, rightsizing of government functions and structure, and the competence and future readiness of the government and its public servants.

Figure 14.2 Strategy Framework to Practice Good Governance and Improve Bureaucratic Efficiency



Strategies

The first two outcomes (participatory governance deepened; public accountability and integrity bolstered) provide strategies for practicing good governance, while the latter two (government functions, systems, and mechanisms rationalized and strengthened; and competent, motivated, agile, and resilient public servants supported) are for improving government efficiency. These strategies complement each other and contribute to other outcomes in the focus areas in other chapters of

this PDP. For instance, a rightsized and productive government with capable civil servants contributes to bolstering public accountability. These strategies also require coherence with other chapter outcomes in the PDP, such as promoting competition and improving regulatory efficiency (*See Chapter 10*), ensuring sound fiscal management (*See Subchapter 11.2*), upgrading infrastructure (*See Chapter 12*), and enhancing the administration of justice (*See Subchapter 13.2*).

Outcome 1: Participatory governance deepened

Deepening participatory governance not only means establishing functional participatory platforms that inform or consult citizens, but also ensuring that citizens and CSOs have concrete roles and significant influence in all stages of public decision-making.¹⁷ Achieving this outcome will require a deeper understanding of the nuances and priorities of marginalized sectors such as women, children, indigenous peoples, overseas Filipinos and overseas Filipino workers, persons with disabilities, agricultural communities, and geographically isolated and disadvantaged areas.

Ensure sufficient and functional participatory spaces

To ensure sufficient and functional participatory spaces, the government will increase the availability and accessibility of protected spaces for various sectors and concerns, while functionality will be secured through platforms that are

established and convened according to policy standards. To this end, the DBM will intensify CSOs' participation in the national budget preparation process. Meanwhile, the DILG will expand the monitoring of the functionality of the local special bodies (LSB) and People's Councils; and enhance policy guidelines to make CSO accreditation and local networking more inclusive. The PH-OGP Steering Committee will involve more agencies in the national action plan, and mainstream PH-OGP mechanisms at the regional and local levels. Agencies will ensure that their decision-making bodies with sufficient sectoral representation, particularly from marginalized sectors, are created, reviewed for functionality and effectiveness, and enhanced accordingly.

Broaden public access to information

Broadening public access to information not merely entails publicizing more information, but also observing open data formats,

removing barriers to internet connectivity, and providing seamless experiences for citizens who are requesting government information. Pursuant to this strategy, the government will build on the gains of the FOI implementation in national agencies, improve on the e-FOI portal services, and intensify partnerships with LGUs for FOI policies. The Department of Information and Communications Technology (DICT) will also enhance the volume and scope of information in Open Data Philippines (online repository of open data from different government agencies), and the provision of free public Wi-Fi services nationwide.

Improve the quality of participation

The quality of participation is improved when it is free from cooptation and tokenism¹⁸ and conducted not for mere compliance with policy guidelines.¹⁹ To improve the quality of participation, the DBM and DILG, with PH-OGP partner agencies, will mainstream the implementation of Participatory Governance Metrics²⁰ for assessing the quality of participation in LSBs and national programs. The DILG will also strengthen

the Council on Good Local Governance and intensify capacity development interventions for CSO members of LSBs. The PH-OGP will continue to implement collaborative practices with CSOs in developing, implementing, and monitoring government programs; and will strengthen the capacity of national and local CSOs to engage the government effectively.

Increase inclusivity and accessibility of elections

Drawing from challenges and lessons learned from conducting national and local elections during the pandemic, the Commission on Elections will expand the use of satellite and special registrations, innovate voting modalities, intensify voters' education and information campaigns outside of the election period, and strengthen election laws and procedures to build resilience against health and natural hazards. For structural reforms, policies on strengthening political parties, regulating political dynasties, and enhancing competition in the political sphere will be jointly pursued by the relevant agencies and Congress.²¹

Outcome 2: Public accountability and integrity bolstered

To address the complex challenges of building integrity and preventing corruption, the government will implement strategies that will foster higher levels of trust, satisfaction, and political efficacy among the public. These strategies will bolster reporting and redress mechanisms; increase the precision and responsiveness of government agencies and programs to public concerns; and improve

policy integration and coherence among concerned national and local units.

Enhance public feedback loops

Effective feedback loops provide precise and timely responses to citizens' demands. Thus, enhancing these loops presents a transformative potential for social accountability and improving citizens'

trust and confidence in government. To operationalize this strategy, the government will ensure the functionality, efficiency, and effectiveness of helplines, hotlines, and helpdesks outlined in existing laws. At the national level, the monitoring and resolution of citizen reports will be improved through the EODB and EGSD Acts, the Anti-Red Tape Authority's (ARTA) Harmonized Client Satisfaction Measurement, the Civil Service Commission's (CSC) Contact Center ng Bayan, and people's feedback mechanisms required in national agency websites. The DBM will also institute a CSO desk to receive and respond to CSOs' budget-related concerns. At the local level, the DILG will monitor the functionality and responsiveness of feedback mechanisms, including the CSO desks and Barangay Violence Against Women helpdesks;²² improve the Citizen Satisfaction Index System implementation with CSOs; and pursue third-party monitoring of state-funded projects. Moreover, digital technologies will be used to augment the implementation of these mechanisms with due emphasis on access, inclusion, context-sensitivity, and empowerment of marginalized sectors.²³

Intensify transparency in public spending

Complementary to the strategies for broadening access to information, intensifying transparency in public spending will help ensure that health emergencies and natural hazards, such as the COVID-19 pandemic, will not disrupt the timely and accessible disclosure of public spending information.²⁴ This will be achieved through the full implementation of the EODB and EGSD Act; better integration of government units and

the observance of Open Contracting Data Standards²⁵ in the modernized Philippine Government Electronic Procurement System; the timely publication of budget and financial accountability reports through the Transparency Seal among agencies; and the expansion of COA's CPA implementation to other audit sectors. The DILG will intensify monitoring transparency practices in LSBs, extending these to the local Bids and Awards and Project Monitoring Committees. More joint agency initiatives will also help break down barriers to transparency²⁶ in data privacy policies.

Strengthen implementation and monitoring of anti-corruption laws and programs

Fulfilling the Philippines' commitment to the United Nations Convention Against Corruption requires a whole-of-government approach. This involves the sectoral capacity assessment of the anti-corruption infrastructure in the country; strengthening and harmonizing the development, implementation, monitoring, and evaluation of anti-corruption programs and laws; and developing a dynamic and multi-disciplinary information technology-enabled, multi-year innovation plan.²⁷ The Office of the Ombudsman, the CSC, and their partner agencies and stakeholders will build on lessons learned from programs such as the Integrity Management Program; Integrity, Transparency, and Accountability in Public Service; Statement of Assets, Liabilities, and Net Worth declaration; and public integrity campaigns.²⁸ The observance of a code of conduct for all government employees and capacity development in integrity management and corruption controls will be

pursued to reduce corruption vulnerabilities. The DILG will also enable and monitor the local *Sangguniang Bayan* or municipal council's quasi-judicial functions and act on various corruption-related complaints filed against local officials.

Improve national governance assessments

As a cross-cutting strategy, the government will ensure the effective and timely conduct of governance assessments and improve the policy learning environment at all government levels. Monitoring and evaluation of government processes, service delivery, and outcomes enhance transparency and accountability, while policy responses

to assessments contribute to improving government efficiency. In this endeavor, the government will hasten the development and roll-out of a National Governance Index²⁹ and intensify the National Evaluation Policy Framework.³⁰ The DILG and the Council of Good Local Governance will maintain the implementation of the Seal of Good Local Governance assessment of LGUs. This will further ensure that the evaluation framework reflects the political capacity indicators of LGUs' resilience to the COVID-19 pandemic and other risks, as well as service delivery standards, in order to transition national and local governments effectively to the post-*Mandanas-Garcia* scenario.

Outcome 3: Government functions, systems, and mechanisms rationalized and strengthened

Improving bureaucratic efficiency is foundational to an enabling environment for economic transformation and in facilitating the Philippines' transition to an upper middle-income country. An efficient bureaucracy exercises the best use of its resources including operational costs, time, and human resources (HR),³¹ while effecting coherence,³² rationality, and uncertainty reduction to deliver the intended results. Strategies for this outcome include rightsizing and digitalizing government functions, while enhancing productivity.

Pursue rightsizing and the whole-of-government approach in re-engineering systems and procedures

The government will enact the National Government Rightsizing Program³³ to

implement structural and procedural reforms in the executive branch and advocate rightsizing among LGUs, the legislature, the judiciary, and other constitutional bodies. To do this, appropriate diagnostic frameworks, upholding economic principles, and strategic reviews of the role, mandates, functions, and structure of government will be employed.³⁴ The government will also optimize the performance of national agencies' core functions, and ensure the effective and efficient implementation of public services. Precursory to this priority reform, agencies will improve the implementation of complementary policies such as the authority of the Governance Commission for Government-Owned or -Controlled Corporations (GOCCs) to reorganize, streamline, abolish, or privatize GOCCs; ARTA's mainstreaming of the

Whole-of-Government Re-engineering Manual;³⁵ and streamlining of audits and systems development across agencies.³⁶

In addition, the government will facilitate the strategic delineation of functions, structure, and staffing of national agencies and LGUs concerning the Supreme Court's Mandanas-Garcia ruling and Executive Order (EO) No. 138, s. 2021.³⁷ Led by the DBM and DILG, concerned national agencies will expedite their respective transitions into capable policy development and oversight bodies that can provide sound and timely service delivery standards and capacity development interventions for LGUs. The functions of inter-agency and multi-stakeholder bodies and committees that support the transition at the subnational levels will be streamlined as part of the functions of the Regional Development Councils.

Accelerate digital transformation in government

The COVID-19 pandemic response emphasized the importance of digital information and services.³⁸ Accordingly, the government will adopt digital technologies for the optimization and integration of its services to improve efficiency and rightsize the government.³⁹ To accelerate digital transformation, the government will strengthen its legal and institutional framework; adopt paperless, cashless, and data-empowered transactions at all levels; and develop civil service capacity for implementation. To this end, the government will pass an e-Governance law to establish an integrated, interconnected, and interoperable

information, resource-sharing, and communications network to deliver public services. Building up to the legislative reform, the government will ensure the effective implementation of policies and programs such as the adoption of digital payments for government disbursements and collections,⁴⁰ DICT's E-Government Masterplan 2022 on digitalization of frontline government transactions and administrative functions,⁴¹ DBM's Budget and Treasury Management System,⁴² the Philippine Business Hub,⁴³ DICT's Integrated Business Permits and Licensing System with LGUs,⁴⁴ and the integration of government services into the Philippine Identification System.⁴⁵

Raise the productivity performance of agencies

To pursue this strategy, the government will strengthen productivity performance frameworks across government sectors and levels and translate these into more coherent capacity development programs and incentive structures. Contributory to this strategy is the strengthening of the implementation of the Government Quality Management Program,⁴⁶ results-based performance management system standards, and the Development Academy of the Philippines' (DAP) productivity capability development programs;⁴⁷ as well as the adoption of the Philippine Quality Award performance excellence framework. The Government Quality Management Program assessments, Citizen Satisfaction e-Survey,⁴⁸ and Business Satisfaction e-Survey⁴⁹ will contribute to the development of broader national governance assessments. Likewise, guidance and assistance will be

pursued in utilizing data from the national satisfaction surveys to identify standards and improvement priorities as well as balancing

outside-in and inside-out approaches to improve citizen-centered design and delivery performance.

Outcome 4: Competent, motivated, agile, and resilient public servants supported

Transformation in government systems and mechanisms will not be possible without the development of public servants' competence, motivation, agility, and resilience. The ability, motivation, and productivity of government personnel are key determinants of government capability.⁵⁰ This outcome advances the policy capacity (micro-level dimensions of analytical, operational, and evaluation capacity) of civil servants. It also accounts for the profound set of skills and competencies identified as necessary during the COVID-19 pandemic such as digital skills, agility, futures thinking, foresight, and innovation competencies.

Guarantee complete and capable human resources in government

To advance human capital development and harmonize capacity-building initiatives among agency providers,⁵¹ the government will adopt a purposive and programmatic approach to developing new competency frameworks for the public sector. The competency framework will involve coherently linking the Public Management Development Program and the revitalized National Government Career Executive Service (CES) Development Program with the CES process to hasten and enhance the quality of senior public officials and their successors. The competency framework will also develop a set of functional and

behavioral competencies essential to being a qualified regulator and making substantive contributions not only to government, but also to society, as a whole.

Moreover, the Career Executive Service Board (CESB) will develop the new competency profile of career officials to be more adaptable to the ever-changing times. The CES system will be strengthened through merit and fitness, and continuous updating of its program offerings. Potential and qualified third-level officials will undergo the four-stage CES eligibility examination process, the CES Leadership Management and Proficiency Program, and other CES lifelong learning programs for appointment to CES ranks to build up a critical mass of CES officers and eligibles.

Learning and development⁵² (delivered through pandemic-responsive modalities); and awards and incentives⁵³ programs will support public servants at all stages of their careers while advocating for higher levels of employee engagement.⁵⁴ Contributing to the strategy implementation are the CSC's Program to Institutionalize Meritocracy and Excellence in Human Resource Management⁵⁵ and the CES system. Legislating the creation of HR management offices in LGUs will also be pursued.

Promote conducive working environments

Conducive working environments enable qualified, impartial, values-driven, professional, and ethical civil servants⁵⁶ who are sufficiently supported to be motivated and productive even in challenging scenarios, as what was experienced during the pandemic. To achieve this, the government will institutionalize alternative working arrangements in the public sector.⁵⁷ This entails establishing clear performance standards for remote functions; strengthening capabilities for the effective

use of information and communications technology (ICT) tools; providing support for remote work; and improving policies on authorizations, data management, and audit.⁵⁸ Initiatives will also include advocating occupational health and safety, ensuring public service continuity, and strengthening mental wellness programs.⁵⁹ The CSC will develop a bureaucracy-wide HR Management Information System, shifting HR management from transactional to the more proactive strategic through digital or web-based systems.

Legislative Agenda

Table 14.1 contains priority bills for the 19th Congress during the Plan period to practice good governance and improve bureaucratic efficiency.

Table 14.1 Legislative Agenda to Practice Good Governance and Improve Bureaucratic Efficiency

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES
Rightsizing the Government	This will implement transformational improvements to streamline the functions, mandates, structure, and staffing of departments and agencies and simplify systems and processes to deliver public goods and services in the most efficient, effective, and economical manner.
E-Governance ^a	This will promote the use of information and communications technology in improving government service delivery and providing access to reliable data and information.
Budget Modernization	This seeks to institutionalize the cash-based budgeting system to strengthen fiscal discipline in the allocation and use of budget resources. It will also promote public participation in the local budgeting process for shared accountability.
National Evaluation Policy	This will strengthen legal and institutional frameworks for the regular measurement, reporting, and utilization of the results of public policies, programs, and projects toward supporting evidence-based decisions, ensuring program improvement, and promoting transparency and accountability in the government. It also seeks to advance the culture and practice of evaluation in the public sector, emphasizing accountability for results and strengthening government collaboration to institutionalize the National Evaluation Policy Framework. Moreover, the proposed bill will ensure credible and quality evaluations to support the planning, formulation, budgeting, and implementation of development interventions.
Freedom of Information	The bill will require government agencies to allow the public to review and copy all official information, and to promote meaningful and increased participation in government decision-making and public accountability. This expands the coverage of Executive Order 2, s. 2016 to the entire bureaucracy, and not just the executive branch.
Creation of Human Resource and Management (HRM) Offices in local government units (LGUs)	The bill seeks to establish HRM Offices and mandate regular (plantilla) HRM officers in LGUs to develop competent and credible employees at the local level. It amends the Local Government Code's optional designation of such local officers.
Recognition of Indigenous People (IP) Mandatory Representatives	This will ensure that IP Mandatory Representatives are recognized in local legislative bodies and their capabilities for local legislation are harnessed for more effective representation and promotion of IP rights through policymaking.

^a This is separate from the E-Government Act, which merely institutionalizes the E-Government Masterplan. Both bills may be harmonized into a single measure as there are overlaps in the proposed bills.

Results Matrix

Table 14.2 contains year-by-year and end-of-plan indicators and targets that the government seeks to attain within each of the outcomes during the Plan period to practice good governance and improve bureaucratic efficiency.

Table 14.2 Results Matrix: Practice Good Governance and Improve Bureaucratic Efficiency

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Outcome 1: Participatory governance deepened									
Percentage of provinces (P), cities (C), and municipalities (M) (PCMs) compliant with Local Development Council (LDC) functionality standards increased	P: 85% C: 83% M: 74% [2022]	P: 87% C: 83% M: 76%	P: 89% C: 85% M: 79%	P: 91% C: 87% M: 82%	P: 93% C: 89% M: 85%	P: 95% C: 91% M: 88%	P: 100% C: 100% M: 91%	Department of the Interior and Local Government (DILG) Annual Report	DILG
Outcome 2: Public accountability and integrity bolstered									
Open Budget Index (OBI) score improved*	68 [2021]	71	N/A	72	N/A	73	73	OBI Report	Department of Budget and Management
Outcome 3: Government functions, systems, and mechanisms rationalized and strengthened									
Percentage of PCMs conferred with the Seal of Good Local Governance increased	21% or 350 PCMs [2022]	Increasing						DILG Annual Report	DILG
Number of government agencies/offices onboarded and contributing to the Open Data Philippines Portal increased	0 [2022]	21	30	40	40	40	40	Department of Information and Communications Technology (DICT) Annual Report	DICT
Outcome 4: Competent, motivated, agile, and resilient public servants supported									
Percentage of Career Executive Service (CES) positions occupied by CES Officers and CES eligibles increased	45%**	50%	51%	52%	53%	54%	55%	CESB Occupancy Report	CESB

* Targets are reflected every other year due to the survey's frequency.

** As of September 2022.

- ¹ As a supplementary index to the United Nations E-Government Survey, EPI assesses the use of online services to facilitate the provision of information by governments to citizens (“e-information sharing”), interaction with stakeholders (“e-consultation”), and engagement in decision-making processes (“e-decision-making”). See United Nations (UN). UN E-Government Knowledgebase: Philippines. UN E-Government Development Database. Retrieved from <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/134-Philippines> (October 23, 2022).
- ² The OBI score is a component of the Open Budget Survey that assesses public access to central government budget information. See International Budget Partnership (IBP). Country Results: Philippines. Open Budget Survey 2021. Retrieved from <https://internationalbudget.org/sites/default/files/country-surveys-pdfs/2021/open-budget-survey-philippines-2021-en.pdf>.
- ³ As the LPI is a composite measure of domains of prosperity, the assessment and targets for this chapter only focus on the Governance Pillar under the Inclusive Societies domain. See Legatum Institute Foundation. (2021). The Legatum Prosperity Index— Changes Made Since 2020 Index and Summary Of Indicator Details. Legatum Institute. Retrieved from https://docs.prosperity.com/3716/3643/5991/The_2021_Methodology_-_Part_3_-_Sources_And_Indicators.pdf.
- ⁴ Political accountability is the degree to which the public can hold public institutions accountable, considering the degree of political pluralism and other accountability mechanisms.
- ⁵ Duterte, R. R. Executive Order No. 02, s. 2016: Operationalizing in the Executive Branch the People’s Constitutional Right to Information and the State Policies to Full Public Disclosure and Transparency in the Public Service and Providing Guidelines therefor. July 23, 2016. Retrieved from <https://www.officialgazette.gov.ph/2016/07/23/executive-order-no-02-s-2016/>.
- ⁶ Department of Information and Communications Technology (DICT). Full List of e-Services. Retrieved from <https://www.gov.ph/services/> (October 23, 2022).
- ⁷ This includes the Open Data Portal, Transparency Seal across all government websites, and the Full Disclosure Policy, among others.
- ⁸ DICT. About Free Wi-Fi for All. Retrieved from <https://dict.gov.ph/freewifi/#> (October 22, 2022).
- ⁹ During the 2021 OGP Impact Awards, the CPA strategy was selected first place for the Asia Pacific region. See COA. (2021). “COA’s Citizen Participatory Audit (CPA) Strategy Wins First Place in OGP Impact Award.” December 16, 2021. Retrieved from <https://www.coa.gov.ph/coas-citizen-participatory-audit-cpa-strategy-wins-first-place-in-ogp-impact-award/>.
- ¹⁰ International Budget Partnership. (2021). Managing COVID Funds: The Accountability Gap. Retrieved from https://internationalbudget.org/covid/wp-content/uploads/2021/05/Report_English-2.pdf.
- ¹¹ The LPI’s definition of “government integrity” encompasses both the absence of corruption and the degree to which government fosters citizen participation and engagement through open information and transparent processes.
- ¹² The CPI assesses and ranks countries by their perceived levels of public sector corruption, using a scale of 0–100 where 0 = highly corrupt and 100 = very clean. See Transparency International. (2022). Corruption Perceptions Index 2021. Retrieved from <https://www.transparency.org/en/cpi/2021/index/phl> (October 22, 2022).
- ¹³ Transparency International. (2022). CPI 2021 for Asia Pacific: Grand Corruption and Lack of Freedoms Holding Back Progress. Retrieved from <https://www.transparency.org/en/news/cpi-2021-for-asia-pacific-grand-corruption-holding-back-progress> (October 22, 2022).
- ¹⁴ Freedom House. (2022). Freedom in the World 2022: Philippines. Retrieved from <https://freedomhouse.org/country/philippines/freedom-world/2022> (October 22, 2022).
- ¹⁵ World Bank. (2022). Philippines: Government Efficiency Policy Notes. Washington, DC.
- ¹⁶ The Supreme Court ruling in the Mandanas case (General Register No. 199802, July 3, 2018) significantly expands the tax base for LGUs’ share in national taxes to include not only national internal revenue taxes but also customs duties and fees.
- ¹⁷ International Association for Public Participation (IAP2). IAP2 Public Participation Spectrum. Retrieved from <https://iap2.org.au/resources/spectrum/> (October 22, 2022).
- ¹⁸ Arnstein, S. (1969). “A Ladder of Citizen Participation.” *Journal of American Planning Association* 35 (4): 216–224. Retrieved from <https://doi.org/10.1080/01944366908977225>
- ¹⁹ Caucus of Development NGO Networks and Alternative Law Groups, CIVICUS, International Center for Not-for-Profit Law, World Movement for Democracy, and Article 19. 2016. Assessment of the Enabling Environment for Civil Society Organizations in the Philippines. Retrieved from https://www.civicus.org/images/EENA_Philippines_En.pdf.
- ²⁰ Medina-Guce, C. (2022). Participatory Governance Metrics for the Philippine Open Government Partnership Commitments: Lessons and Recommendations from Pilot Customizations. Manila: United Nations Development Programme and Department of the Interior and Local Government.
- ²¹ Mendoza, R., M. Banaag, J. Hiwatig, and M. H. Yusingco. (2020). Term Limits and Political Dynasties in the Philippines: Unpacking the Links. *Asia-Pacific Social Science Review* 20 (4): 88–99.
- ²² Ladia, M.A. and N. Parreno. 2021. Philippines: Gender-based Violence Policy and Institutional Mapping Report. Washington, DC: The World Bank. <https://thedocs.worldbank.org/en/doc/e1575832e43d4030373f9a616975364f-0070062021/philippines-gender-based-violence-policy-and-institutional-mapping-report>.
- ²³ Medina-Guce, C. 2022. “Civic Tech for Social Accountability in Philippine Local Governments.” In *Decentralization, Digitalization, and Development: Strengthening Local Governance for Crisis Response, Recovery, Resilience, and the Sustainable Development Goals*. Manila: UNDP Philippines.
- ²⁴ Canares, M. and F. van Scalkwyk. (2021). Inclusive Responses to the COVID-19 Pandemic: The Role of Open Contracting. Hivos. Retrieved from <https://stepupconsulting.files.wordpress.com/2021/10/summary-paper.pdf>.
- ²⁵ Open Contracting Data Publication is a country commitment to the OGP. This pertains to the mandatory publication of contracting data (from planning to implementation) in machine-readable formats. See Open Government Partnership. Open Contracting Data Publication (PH0066). Retrieved from <https://www.opengovpartnership.org/members/philippines/commitments/PH0066/>
- ²⁶ Philippine Center for Investigative Journalism (PCIJ). (2018). Public Contracting in the Philippines: Breakthroughs and Barriers. PCIJ, Hivos, and Article19. Retrieved from https://pcij.org/uploads/5bea32964f0bf-PCIJ_Open-Contracting-in-Philippines-Report_01102018_b.pdf.
- ²⁷ 17th Congress. Republic Act No. 11293 (Philippine Innovation Act). Manila; and NEDA, DOST, and DTI. 2020. Administrative Order No. 01, s. 2020: Promulgating the Implementing Rules and Regulations of Republic Act No. 11293 Otherwise Known as the Philippine Innovation Act. February 7, 2020. Manila.
- ²⁸ Campaigns include the OMB’s Campus Integrity Crusaders, Sikhay Laban sa Korupsyon, and Aral at Asal Project (with the University of the Philippines System and the Commission on Higher Education).
- ²⁹ The Index will serve as the local counterpart of global governance indices, based on the nuances of the Philippine context.
- ³⁰ NEDA and DBM. (2015). Joint Memorandum Circular No. 2015-01: National Evaluation Policy Framework of the Philippines. July 15, 2015 Retrieved from <https://nep.neda.gov.ph/document/NEDA-DBM%20Joint%20Memorandum%20Circular%20No.%202015-01%20-%20National%20Evaluation%20Policy%20Framework%20of%20the%20Philippines.pdf>.
- ³¹ Organisation for Economic Co-operation and Development (OECD). Evaluation Criteria. Retrieved from <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm> (October 22, 2022).

- ³² Gajduscsek, G. (2003). Bureaucracy: Is It Efficient? Is It Not? Is That The Question?: Uncertainty Reduction: An Ignored Element of Bureaucratic Rationality. *Administration & Society* 34 (6): 700–723.
- ³³ DBM. (2022). Briefe on NGRP. Manila.
- ³⁴ Diokno-Sicat, C.J. (2018). Economic Principles for Rightsizing Government. Philippine Institute for Development Studies Discussion Paper Series No. 2018-46. Retrieved from <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1846.pdf>.
- ³⁵ ARTA. (2021). Memorandum Circular No. 2021-09 Series of 2021: Issuance of the Whole-of-Government Reengineering Manual. June 25, 2021. Retrieved from <https://arta.gov.ph/wp-content/uploads/2021/11/Memorandum-Circular-No.-2021-09-Issuance-of-WOG-Reengineering-Manual.pdf>.
- ³⁶ Such as rightsizing and/or streamlining reviews stipulated in Section 88, General Provisions of the FY 2022 and the Philippine Government Asset Management Policy. See Official Gazette of the Republic of the Philippines. 2022. General Appropriations Act: General Provisions Fiscal Year 2022. Official Gazette 118 (1). Retrieved from <https://dbm.gov.ph/wp-content/uploads/GAA/GAA2022/Volumel/GENPRO.pdf>; and DOF, DBM, and NEDA. 2020. Joint Memorandum Circular No. 2020-1: Implementation of a Philippine Government Asset Management Policy. September 24, 2020. Retrieved from <https://www.dbm.gov.ph/wp-content/uploads/Issuances/2020/Joint-Memorandum-Circular/DOF-DBM-NEDA-JOINT-MEMORANDUM-CIRCULAR-NO-2020-1.pdf>.
- ³⁷ Duterte, R.R. Executive Order No. 138, s. 2021: Full Devolution of Certain Functions of the Executive Branch to Local Governments, Creation of a Committee on Devolution, and for Other Purposes. June 1, 2021. Retrieved from <https://www.officialgazette.gov.ph/2021/06/01/executive-order-no-138-s-2021/>.
- ³⁸ Tubuga, A., S. Domingo, C.J. Diokno-Sicat, and V. G. Ulep. (2020). Innovating Governance: Building Resilience against COVID-19 Pandemic and Other Risks. Philippine Institute for Development Studies Discussion Paper Series No. 2020-23. September 2020. Retrieved from <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2023.pdf>.
- ³⁹ World Bank. Philippines: Government Efficiency. 3-8. Washington, DC.
- ⁴⁰ Duterte, R.R. (2022). Executive Order No. 170, s. 2022: Adoption of Digital Payments for Government Disbursements and Collections. May 12, 2022. Retrieved from <https://www.officialgazette.gov.ph/2022/05/12/executive-order-no-170-s-2022/>.
- ⁴¹ DICT. (2019). E-Government Masterplan 2022. Quezon City. Retrieved from <https://dict.gov.ph/ictstatistics/wp-content/uploads/2020/03/EGMP-2022.pdf>.
- ⁴² The Budget and Treasury Management System is a core element of the Integrated Financial Management Information System, which seeks to: (a) facilitate an efficient and secure government financial transactions and (b) strengthen the monitoring and reporting of financial and fiscal data.
- ⁴³ The Philippine Business Hub – Central Business Portal (<https://business.gov.ph/home>) serves as a central system to receive applications and capture application data involving business-related transactions.
- ⁴⁴ iBPLS is a software that enables LGUs and their constituents to apply and process building permits and occupancy permits electronically. See ARTA. (2020). ARTA To LGUs: Automate Business and Building Permits Now using DICT's IBPLS. ARTA Press Releases. September 15, 2020. <https://arta.gov.ph/press-releases/arta-to-lgus-automate-business-and-building-permits-now-using-dicts-ibpls/>.
- ⁴⁵ Duterte, R.R. (2022). Memorandum Circular No. 95, s. 2022: Directing All Government Agencies, Offices, Instrumentalities, as Well as Local Government Units, to Prepare for the Implementation of the Philippine Identification System and Its Integration into Government Processes, Databases, Systems and Services. February 7, 2022. Retrieved from <https://www.officialgazette.gov.ph/2022/02/07/memorandum-circular-no-95-s-2022/>.
- ⁴⁶ DAP. Government Quality Management Program. Retrieved from <http://pdc.dap.edu.ph/index.php/government-quality-management-program/> (October 22, 2022).
- ⁴⁷ DAP. Capability Development. Retrieved from <https://coe-psp.dap.edu.ph/capability-development> (October 22, 2022).
- ⁴⁸ DAP. Citizen Satisfaction e-Survey (e-CitSat). Retrieved from <http://pdc.dap.edu.ph/index.php/citizen-satisfaction-e-survey-e-citsat/> (October 22, 2022).
- ⁴⁹ DAP. Business Satisfaction e-Survey (e-BizSat). Retrieved from <http://pdc.dap.edu.ph/index.php/business-satisfaction-e-survey-e-bizsat/> (October 22, 2022).
- ⁵⁰ World Bank Group. (2019). Innovating Bureaucracy for a More Capable Government. Washington, DC. Retrieved from <https://openknowledge.worldbank.org/handle/10986/31284> (February 12, 2019).
- ⁵¹ Agency providers include the CSC, DAP, and CESB.
- ⁵² Includes DAP's Local Government Executives and Managers Class under the Public Management Development Program, and CESB's Leadership and Management Proficiency Program.
- ⁵³ CSC has harmonized the Strategic Performance Management System with the Program Expenditure Classification and the Results-based Performance Management System.
- ⁵⁴ OECD. (2021). The Future of the Public Service: Preparing the Workforce for Change in a Context of Uncertainty. OECD iLibrary. Retrieved from <https://www.oecd-ilibrary.org/sites/1a9499ff-en/index.html?itemId=/content/component/1a9499ff-en> (October 22, 2022).
- ⁵⁵ This program aims to elevate public sector HR management to a level of excellence through the assessment, assistance, and awarding processes of HRM Systems, Practices, and Competencies using HRM maturity level indicators that are at par with global HRM standards.
- ⁵⁶ OECD. (2017). Skills for a High Performing Civil Service. OECD Public Governance Reviews. OECD Publishing. Retrieved from <https://www.oecd.org/gov/skills-for-a-high-performing-civil-service-9789264280724-en.htm> (October 22, 2022).
- ⁵⁷ CSC. (2022). Flexible Work Arrangements in the Public Sector May Now be Adopted Anytime. Retrieved from <https://csc.gov.ph/csc-approves-flexi-work-for-gov-t-employees> (October 22, 2022).
- ⁵⁸ DAP. n.d. The Public Sector Amidst the COVID-19 Pandemic: A Case Study on the Adoption of Alternative Working Arrangement. Retrieved from <https://coe-psp.dap.edu.ph/knowledge-products/the-public-sector-amidst-the-covid-19-pandemic-a-case-study-on-the-adoption-of-alternative-working-arrangements/> (October 22, 2022).
- ⁵⁹ CSC, Department of Health, and Department of Labor and Employment. (2020). Joint Memorandum Circular No. 1, s. 2020: Occupational Safety and Health (OSH) Standards for the Public Sector. Retrieved from <https://oshc.dole.gov.ph/wp-content/uploads/2021/06/JMC-no.1-V2.pdf>.

15

**Accelerate Climate Action
and Strengthen Disaster
Resilience**

Accelerate Climate Action and Strengthen Disaster Resilience

By 2028, communities, institutions, and the natural and built environment in the Philippines are more resilient to the impacts of natural hazards and climate change. To realize this goal, the government will strengthen cross-sectoral convergence and coordination and implement a comprehensive risk management approach to reduce intersecting vulnerabilities and address complexities in managing the compounding and cascading risks posed by climate change across different sectors. The government will collaborate with the private sector and international community to scale up sustainable and green investments that propel economic transformation for a prosperous, inclusive, and resilient society. Innovative policies and measures to advance low-carbon development will also be pursued while ensuring just transition and job creation. Rehabilitation and protection of natural resources will be accelerated to sustain the provision of ecosystem goods and services. A green and blue economy will be promoted and developed to optimize their contribution to livelihood and employment generation while improving environmental and social well-being. Lastly, improved governance will underpin the country's collective effort to ensure long-term climate and disaster resilience.

This chapter presents the challenges faced in climate action and strengthening disaster resilience as well as the outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) climate and disaster risk resilience of communities and institutions increased, (b) ecosystem resilience enhanced, and (c) low carbon economy transition enabled.

Assessment and Challenges

Several enabling policies and plans have been adopted to ramp up climate action and strengthen disaster resilience. These include the adoption of a framework and guidelines to mobilize sustainable and green finance, such as the Sustainable Finance Framework and Roadmap, and Securities and Exchange Commission Guidelines on the issuance of Green and Sustainability Bonds. Plans and guidelines have also been formulated to better manage climate and disaster risks, including the National

Climate Risk Management Framework,¹ National Disaster Risk Reduction and Management Plan (NDRRMP) 2020–2030, and Guidelines for Mainstreaming Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in the Comprehensive Development Plan. Multi-hazard early warning systems and tools have also been established. The government has also adopted the roadmaps on Water Security and Natural Capital Accounting and prepared flood risk master plans for major river basins to

improve the state of ecosystems and enhance their resilience to the impacts of climate change and natural hazards. Moreover, local government units (LGU) were able to integrate climate and disaster risk resiliency measures into their local plans, through their Local Climate Change Action Plans and Local Disaster Risk Reduction and Management Plans. However, these plans require updating, and the LGUs need more support for their implementation. The NDRRMP 2020–2030 also noted that the lack of consistency and standardization of tools for local flood early warning systems caused confusion in the operationalization of the disaster management plan, especially at the sub-national and local levels.

Government budget allocation for climate and disaster resilience has been inadequate.

The government's budget for climate change adaptation and mitigation increased from PHP195 billion in 2017 to PHP289 billion in 2022. However, its share in the total budget declined from 6.99 to 5.77 percent in the same period. The monitoring of actual expenditures at the agency and LGU levels also remains inadequate, making it difficult for the government to track and assess the progress in the climate agenda. For the National Disaster Risk Reduction and Management Fund (NDRRMF), an annual average of PHP20 billion was allocated from 2016 to 2021. However, analysis showed that the NDRRMF was mainly used for post-disaster activities such as cash assistance, resettlement, and quick response funds of agencies. This mirrors the expenditure pattern at the local level, where Local DRRM Funds were highly skewed toward disaster response, recovery and rehabilitation.²

Meanwhile, the 2016 People's Survival Fund appropriation has not yet been fully utilized with only six LGUs able to access the fund.

The coronavirus disease (COVID-19) pandemic slowed down environmental and climate action.

The pandemic negatively affected the achievement of targets in the previous Philippine Development Plan and other government plans (e.g., National Climate Change Action Plan [NCCAP], NDRRMP). For instance, land titling and delineation of municipal waters, which are vital for securing property rights and effective management, slowed down following the imposition of mobility restrictions due to COVID-19. The quarantine measures also hampered the government's ability to assess improvements in local capacities and disaster preparedness. They also resulted in a significant decline in employment from ecotourism and sustainable resource-based industries.

Overall, the progress in environmental and climate action in the last six years has been modest.

The implementation of programs supporting natural resources management and climate actions has shown some progress. For instance, forest cover increased by 3.03 percent from 2015 to 2020, and the management of protected areas generally improved. However, these positive gains still fall short in improving the country's overall performance in these sectors. In the 2022 Environmental Performance Index ranking, the Philippines placed 158th out of 180 countries in environmental sustainability ranking, which covers performance indicators on ecosystem vitality (e.g., biodiversity, water resources), environmental health

(e.g., air quality, waste management) and climate change. The country's overall score of 28.9 points fell below the Asia-Pacific median score of 35.1.³ The Sixth Assessment Report of the Intergovernmental Panel on Climate Change concluded that global average temperature would exceed 1.5°C in the 21st century under the intermediate, high, and very high greenhouse gas (GHG) emission scenarios. With this, more frequent and intense extreme events will continue to cause widespread adverse impacts and related losses and damage to nature and people, beyond natural climate variability. This changing global risk landscape and the broad range of hazards—current, emerging, cascading and complex—have disproportionately impacted less developed and developing countries and communities.

Historical data revealed that temperature indices across the country (depending on elevation) have high spatial variability. However, with the projected increase in average temperature by the mid-21st century (2036–2065)—specifically, 1.9°C under the moderate Representative Concentration Pathway (RCP) or RCP 4.5 and 2.3°C under the high (RCP 8.5) emission scenarios—a spatially uniform warming trend across the country is to be expected, with increasing magnitude, frequency, and duration. Projected changes in precipitation show a general drying trend (reduced rainfall, more dry days), as well as the occurrence of localized extreme rainfall events. Projections on sea level rise reveal an increase of about 20 centimeters by the end of the 21st century under the RCP 8.5 scenario, which could worsen storm surge hazards on coastal communities. Moreover, tropical storms are

also expected to increase in frequency and intensity.⁴

The Philippines is one of the most vulnerable countries to the impacts of climate change, despite its minimal contributions to global GHG emissions at 0.40 percent. In the 2022 World Risk Index, the Philippines ranked first among 193 countries with the highest disaster risks.⁵ Between 2011 and 2021, the country incurred PHP673.30 billion worth of damage and losses due to tropical cyclones alone.⁶ These damage and losses from climate change are expected to increase under a business-as-usual scenario, reaching up to 7.6 percent of the country's gross domestic product by 2030 and 13 percent by 2040.⁷ Without adequate action, climate change could worsen poverty and inequality in terms of access to resources and opportunities. This compels the government to prioritize mobilizing domestic resources for adaptation as the priority climate action in the country.

In its Nationally Determined Contribution (NDC) submitted to the United Nations Framework Convention on Climate Change in 2021, the Philippines commits to reduce and avoid 75 percent of its projected GHG emissions against the business-as-usual scenario (2020–2030). Of this mitigation target, 2.71 percent are unconditional, and 72.29 percent are conditional on resources to be provided by developed countries to implement mitigation actions in the agriculture, waste, industrial processes and product use, transport, and energy sectors. However, the plan to operationalize the NDC policies and measures (PAM) and their corresponding financing, technology, and capacity development are yet to be developed,

as well as the necessary measurement, reporting, and verification system to track, monitor, and report the progress of NDC implementation.

As with other developing countries, the Philippines faces substantial challenges in implementing adaptation and risk reduction strategies, strengthening community and ecosystem resilience, and transitioning to green growth pathways. Limited financial resources and technical capacity of many LGUs to utilize risk information, including CCA and DRR assessment tools, hinder them from effectively implementing local resiliency programs. Funds from other sources will need to supplement LGU funds,

even with the expected increases due to the implementation of the *Mandanas-Garcia* ruling. However, financial risks around climate change investments hamper the mobilization of significant private sector financing to drive climate-resilient and low-carbon transition. In addition, potential investors would need to deal with complex regulatory requirements, inconsistent transition standards, and lack of credible risk data. Moreover, the government has yet to fully account for the value of natural capital and ecosystem services to better inform its policies and decisions, including in CCA and DRR.

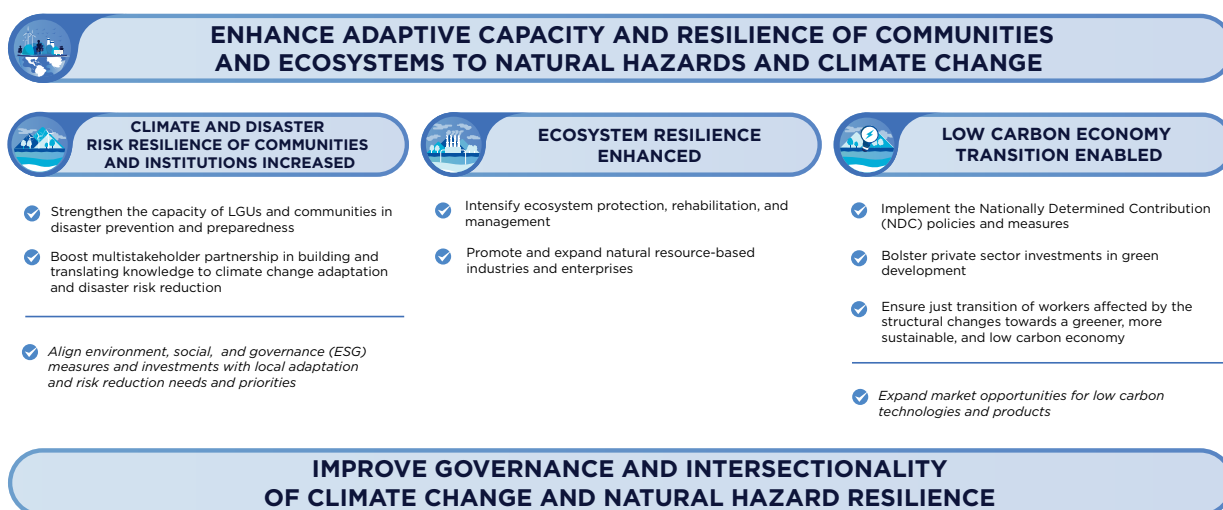
Strategy Framework

The Strategy Framework for climate action and disaster resilience responds to economic transformation that benefits the welfare of Filipino communities, households, and individuals (See *Figure 15.1*). In particular, it adopts a “well-being lens” where efforts on climate change adaptation, and mitigation, and DRR contribute to increased income and job opportunities, improved public health, and enhanced knowledge and skills, among others. At the same time, these actions contribute to enhancing economic, natural, and social capital toward sustaining well-being over time.

The strategies discussed below aim to achieve the following outcomes: (a) climate and disaster risk resilience of communities

and institutions increased; (b) ecosystem resilience enhanced; and (c) low carbon economy transition enabled. Implementing the specific strategies requires decisive and sustained financing, knowledge build-up, technology and innovation, strong institutions, and concerted action among the government and its stakeholders at all levels. These stakeholders include the private sector, civil society, academe, local communities, and peoples’ organization. Climate and disaster risk governance will be comprehensive and science- and evidence-based for the effective and efficient delivery of these actions.

Figure 15.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience



Note: Strategies above the dashed lines require action by government entities, and those below by non-government entities.

Strategies

The operationalization of the above framework will require a whole-of-society and all-hazard approaches where the knowledge and capacity of academic institutions, non-government or civil society organizations, and vulnerable groups are harnessed or enabled by increased public investment. This will jumpstart adaptation strategies to mitigate and better prepare for the increase in the frequency and severity of natural hazards with significant negative impacts on communities. Localized and

adaptive approaches will be implemented considering the different levels of climate and disaster risks. Rehabilitation, protection, and management of ecosystems will be intensified through nature-based solutions and integrated approaches, e.g., integrated water resources management and ecosystem-based approach. Mitigation strategies that deliver adaptation and environmental co-benefits will be pursued to support the country's climate and disaster resilience-building efforts.

Outcome 1: Climate and disaster risk resilience of communities and institutions increased

The government will foster the resilience of communities and institutions through improved public-private-community engagements, increased public awareness and understanding of risk and vulnerability, and strengthened implementation of National Climate Risk Management Framework.

Achieving climate and disaster resilience will also require scaling up sustainable finance and de-risking climate investments (See Subchapter 11.1), as well as strengthening human and social assets in terms of income and jobs (See Chapter 4); health (See Subchapter 2.1); knowledge, skills,

and financial literacy (See *Subchapters 2.2 and 11.1*); environmental quality (See *Subchapter 2.3*); agriculture (See *Chapter 5*); infrastructure (See *Chapter 12*); and governance (See *Chapter 14*).

Strengthen the capacity of LGUs and communities in disaster prevention and preparedness

Geographically disaggregated climate data and related information will be updated and capacity-building programs will be conducted to better prepare communities for slow and rapid onset events and identify priority interventions. Subsequently, LGUs are expected to update their respective Local Climate Change Action Plans and Local Disaster Risk Reduction Management Plans. Program convergence budgeting will also be enhanced to efficiently address the needs of LGUs, especially those that are highly vulnerable to natural hazards, climate change, and El Niño-Southern Oscillation (ENSO). In addition, investments in disaster preparedness and prevention, such as resilient infrastructure (e.g., roads, schools, evacuation centers, hospitals, water supply and sanitation facilities, and green-grey infrastructure) will be increased to enable communities affected by disasters, especially women, children, and other marginalized groups, build forward better (See *Chapter 12*).

Boost multistakeholder partnership in building and translating knowledge to climate change adaptation and disaster risk reduction

The National Disaster Risk Reduction and Management Council (NDRRMC) and the Climate Change Commission (CCC)

will collaborate with the private sector and academic institutions in (a) conducting local and sectoral vulnerability and risk assessments that incorporate public health parameters; (b) compiling and disseminating risk data and information including reports on damage and losses through a comprehensive and interoperable climate change and natural hazard database and information system; (c) capacitating LGUs to utilize risk information for developing, implementing, and monitoring relevant policies and programs; (d) maximizing the use of end-to-end early warning and communication systems for preparedness and prevention measures; and (e) enhancing the integration of climate change and DRR in the education system. These strategies will help LGUs better access available financing facilities (e.g., People's Survival Fund) for building community resilience.

Align ESG measures and investments with local adaptation and risk reduction needs and priorities

Private sector partners will be supported in aligning their respective environment, social, and governance (ESG)⁸ targets and investments (e.g., corporate social responsibility programs) with local priorities and targets on CCA and DRR to efficiently allocate limited resources toward building resilience. The Sustainable Development Goals (SDG) Stakeholders' Chambers under the Sub-committee on SDGs of the Development Budget Coordination Committee of the NEDA Board (DBCC SC-SDG) will be utilized as platform for discussing the rationalization of these efforts. To enable accounting of contributions to broader sustainability goals,

the DBCC SC-SDG will conduct capacity building programs on sustainability and/or ESG reporting for the members of the

SDG Stakeholders' Chambers and other stakeholders.

Outcome 2: Ecosystem resilience enhanced

Climate change transforms ecosystems by altering ecological patterns, species distributions, and suitability of land for specific uses, and so does their capacity to support human adaptation. Thus, rehabilitation of degraded ecosystems (e.g., forest, water, mangrove, wetlands, seagrass, coral reefs, land) will be accelerated to restore and enhance ecosystem services, particularly the ability of natural systems to protect communities against the negative impacts of climate change. Planning and implementation of interventions that address vulnerabilities across ecosystems and improve their resilience will be science- and evidence-based and risk-informed, such as the use of climate-adjusted hazard maps in spatial planning. Also, the Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) will be operationalized. This Action Plan follows a comprehensive framework covering policy, research and development (R&D), innovation, and technology, infrastructure investments, and information and education to enjoin consumers and producers to adopt sustainable strategies and practices. In addition, natural assets will be harnessed to stimulate demand for green goods, services, and technologies in order to support green jobs and generate income for resource-dependent communities.

Intensify ecosystem protection, rehabilitation, and management

The government will continue to strengthen the management and sustainable use of land, water, biodiversity, and other natural resources using integrated and ecosystem-based approaches and nature-based solutions to optimize their climate change adaptation and mitigation benefits (e.g., storm buffers and carbon sink). The interconnectivity of various ecosystems within landscapes and seascapes and its impacts on biodiversity, ecological processes, and functions will be considered in development planning. This covers the conduct of carrying capacity assessments to inform appropriate management interventions especially in protected areas and ecotourism sites. Indigenous knowledge, systems, and practices will also be employed to complement science-based approaches in managing ecosystems. In addition, the Department of Environment and Natural Resources (DENR) will strengthen the monitoring of extractive industries' compliance, including mining and quarrying, to existing environmental laws, rules, and regulations.

Likewise, scaling up the integration of sustainable land management approaches (e.g., soil and water conservation measures, climate-smart technologies) in local plans and policies will be pursued to address climate change impacts on land and water resources. Strengthening and improving the efficiency

of land administration, particularly the streamlining of regulatory mechanisms for land titling, will also be prioritized to ensure land tenure security, thereby increasing people's adaptive capacity to climate change and natural hazards.

Promote and expand natural resource-based industries and enterprises

Collaboration among the government, private sector, academe, civil society, and representatives from marginal sectors, such as women, youth and indigenous peoples, will be bolstered to (a) secure sustainable production, (b) accelerate rehabilitation and conservation efforts, (c) strengthen enforcement of environmental rules and regulations, and (d) boost the contribution of ecosystems in climate change adaptation and mitigation.

To promote the green and blue economy, the government will pursue enabling policies that will provide more livelihood and economic opportunities, particularly for the poor and vulnerable upland and coastal communities. Investments in activities that foster the sustainable management of natural resources, such as on forest and coastal protection and rehabilitation, will be increased to generate more jobs and livelihoods. The government and the private sector will also promote and develop more biodiversity-friendly enterprises and ecotourism sites within and outside protected areas. Likewise, forestry investments will be revitalized by establishing more commercial forest plantations for timber and non-timber forest products, fuelwood, and high-value crops (e.g., coffee, cacao, and rubber). Marine-based

industries and enterprises, such as mudcrab fattening, blue swimming crab culture, seaweed farming, and salt production, will also be scaled up to provide employment opportunities and income for coastal communities.

The development and implementation of the Green Jobs Assessment and Certification System and Guidelines will be fast-tracked to facilitate the shift to cleaner production technologies and processes, while monitoring tools will be further harnessed to account for the contribution of green jobs to the economy. Also, government, academe, and the private sector will advance R&D on genetic resources for nature-based products, pharmaceuticals, and nutritional supplements. Intellectual property rights for such products will be strengthened to optimize their economic potential and ensure equitable sharing of revenues, especially for local and indigenous communities as stewards of our natural resources.

Further, the government will partner with other stakeholders to establish market-based mechanisms, such as payments for ecosystem services (PES) that support natural resource conservation measures and accelerate ecosystems and habitat rehabilitation and restoration. The government will also ensure increased compliance with mandatory regulations (e.g., reporting of environmental protection expenditures), and encourage the private sector to adopt flexible methods to offset and compensate the ecological and social impacts of their operation and production—including extractive industries (e.g., mining and quarrying—and improve social and environmental standards to fulfill corporate responsibility.

Outcome 3: Low carbon economy transition enabled

While adaptation remains the country's priority climate action, mitigation will be pursued given its environmental co-benefits (e.g., improved environmental quality and biodiversity) and contribution to green economic transformation (e.g., increased job creation and energy security). As such, the government will strengthen the enabling environment for private sector engagement in mitigation, promote the development of green technologies, and implement transformative policies and actions to curb GHG emissions while ensuring just transition of the workforce. The government will also prioritize actions based on the mitigation hierarchy that lead to the best outcomes for communities and the environment, wherein the following strategies are prioritized in order to: (a) avoid adverse impacts, (b) minimize impacts that cannot be avoided, (c) restore or rehabilitate damage or degradation, and (d) offset or compensate for unavoidable impacts. Hence, transitioning to a low-carbon economy will involve strengthening adaptation actions with high mitigation potential, such as restoring and protecting terrestrial and blue carbon ecosystems (e.g., mangroves and seagrasses).

Implement the Nationally Determined Contribution policies and measures

Lead sectoral agencies,⁹ in collaboration with the private sector, will adopt innovative and transformative low-carbon emitting technologies in the energy, agriculture, waste, industry, and transport sectors. For the energy sector, the Department of Energy

will reduce emissions in the supply side by expanding renewable energy systems and technologies and scaling-up energy efficiency and conservation measures (*See Chapter 12*). The government will also explore the localization of NDC PAMs to increase the capacity and contribution of LGUs to national mitigation actions. Based on the country's emerging needs and priorities, the CCC will lead the preparation of an updated NDC, to include PAMs for adaptation and loss and damage, through a multisectoral and consultative process. The CCC will also develop an implementation and financial plan to guide the operationalization of NDC PAMs.

Bolster private sector investments in green development

The government will foster an enabling policy environment to leverage private sector investments in green technologies and circular business models that generate green jobs. This includes exploring the feasibility of adopting carbon pricing instruments (CPI) as a cost-effective means to encourage the transition to clean energy and improve energy efficiency in high-emitting sectors (i.e., energy and industry), raise state revenues, and address environmental concerns. Local carbon markets will also be established to tap private sector financing, including foreign investments, particularly for the agriculture and forestry sectors. To this end, the DENR will identify and establish areas for carbon offsetting and encourage support for relevant initiatives such as efforts to advance the implementation of Reducing Emissions

from Deforestation and Forest Degradation or REDD+ activities and rehabilitate and conserve blue carbon ecosystems. These measures will be complemented by intensified, granular geospatial carbon accounting at the sub-national level and in different property rights regimes, including ancestral domains, as well as developing a national carbon registry to monitor transactions.

The abovementioned strategies will support businesses in adopting resource-efficient and cleaner production measures and pursuing supply chain-greening initiatives that optimize the use of natural resources, minimize emissions and waste, and reduce risks to people and communities. The promotion of resource-efficient and cleaner production, particularly in the energy, transport, and industry sectors, will be supported by the full implementation of incentive mechanisms under existing laws, such as the Renewable Energy Act, Energy Efficiency and Conservation Act, Electric Vehicle Industry Development Act, Organic Agriculture Law, and Green Jobs Act (See Chapters 5 and 12). In addition, local and global partnerships for carbon capture and storage from industries such as steel and cement production and power generation will also be explored.

Ensure just transition of workers affected by the structural changes towards a greener, more sustainable, and low carbon economy

The implementation of the Green Jobs Human Resource Development Plan will be prioritized, including the provision of support

and training opportunities (e.g., retooling, upskilling, or reskilling on sustainable practices and processes) for workers and enterprises affected by the transition to a sustainable and green economy (See Chapters 4 and 6).

Expand market opportunities for low carbon technologies and products

Technology development will be promoted through partnership and collaboration among industries, civil society, and the academe. Support for the development of domestic manufacturing and production of green and climate-smart technology products for global markets will also be provided. For instance, downstream metallic and non-metallic mineral industries that produce or use renewable energy and electric vehicle technologies and components (e.g., energy storage solutions) will be supported to aid in the clean energy transition (See Chapters 6 and 12). This will increase value added in the industry sector and induce the creation of more green jobs. The government will also continue to support local industries for R&D and commercialization of sustainable and green technologies and products (e.g., through the Innovation Fund) (See Chapter 8). The government will assist micro, small, and medium enterprises (MSME) and local export producers and suppliers to access international markets for these technologies and products by strengthening their compliance to sustainability standards and enhancing their competitiveness (See Chapter 9).

The implementation of the green public procurement program, ecolabelling, and other green certification schemes will be strengthened (e.g., green hotels and resorts,

green buildings, sustainable agriculture) to guide consumer behavior toward green and sustainable products and services.

Cross-cutting Strategy: Improve governance and intersectionality of climate change and natural hazard resilience

Cross-cutting measures will be pursued to enable the implementation of strategies aimed at ensuring resilient communities, institutions, and ecosystems, and fostering a low-carbon economy. This would also include addressing the intersectionality of vulnerability in priority sectors such as agriculture, water, energy, transportation, and urban-rural linkages to enhance climate and disaster resilience. These measures focus on improving existing governance structures, facilitating technology-enabled and science-based policy and planning, and mobilizing sustainable and green investments.

Improve national and local climate and risk data and information management system

The National Framework Strategy on Climate Change and National Climate Change Action Plan (NCCAP) will be updated, and the National Adaptation Plan will be completed based on the latest climate science and aligned with the country's commitments under the 2015 Paris Agreement. The NCCAP's results-based monitoring and evaluation system will also be updated and operationalized. A framework and methodology to measure resilience will also be developed to effectively monitor the climate

resilience-building efforts from the national down to the local level. The government will also support the establishment of local climate change and disaster risk reduction data management systems and climate change and natural hazard information centers to enhance the accessibility of climate information and gender-transformative early warning systems by communities, which will also facilitate the scaling up of public and private resources in resilience building. Where applicable, these information centers will adopt mobile and digital information and communication technologies such as the Internet of Things, Big Data, space science and technology applications, and artificial intelligence, thereby minimizing the fragmentation of current local disaster warning systems. The government will also develop a National Risk Registry that outlines and identifies location-specific hazards, exposure, and vulnerability, complementary to the development of localized climate models and projections. The capacity of lead sectoral agencies to conduct regular national GHG inventory will also be enhanced to enable the effective measurement and management of GHG emissions. The conduct of regional GHG inventory will also be explored to assess and determine the potential contribution of regions in attaining the NDC targets.

Scale up natural capital accounting and valuation of ecosystem services

The Roadmap to Institutionalize Natural Capital Accounting (NCA) in the Philippines will be implemented to better inform planning and programming toward increasing the resilience of ecosystems and communities and comprehensively accounting for the country's wealth. In particular, the Philippine Statistics Authority will develop, compile, and regularly update natural capital and ecosystem accounts to: (a) monitor changes in natural capital stock; (b) pursue accounting of ecosystem damage and losses from natural hazards and estimation of corresponding monetary value; and (c) integrate the value of ecosystem services into macroeconomic indicators.

The DENR will establish and maintain a national geospatial database and data management system for natural resources. The academe, private sector, and civil society organizations will be tapped and capacitated in collecting timely, updated, and robust environmental data, and in assisting LGUs to generate and use local geospatial information. The government will also collaborate with said stakeholders in conducting applied research on NCA.

Scale up the mobilization of sustainable finance from public and private sources

This includes developing a sustainable, bankable, and gender-responsive pipeline of projects; implementing a blended approach in climate financing (e.g., grants, investments, and subsidies); and expanding the government's program convergence

budgeting approach. Public spending will be structured such that it stimulates private sector investments, while regulations and guidelines on accessing government finance facilities will be streamlined to facilitate improved access, especially by women. Further, the government will work closely with the private sector to minimize the risks (i.e., physical and transition risks) that affect the bankability of green investments by: (a) providing information on emerging climate technologies, and climate and environmental uncertainties; (b) building capacity on conducting risk assessments among investors, capitalists, and borrowers; and (c) developing and institutionalizing tools and approaches to integrate environmental externalities into economic analyses and environmental impact assessments—allowing a holistic accounting of the economic costs and benefits of associated investments. In addition, public-private partnerships will be encouraged to attract more investors. The establishment of more Green Investment Banks will also be promoted to support the development of green markets.

The government will expand disaster risk financing beyond the NDRRMF by working with relevant institutions in financing and insurance and supporting LGUs in accessing the same, especially for localized preparedness, relief, early recovery, and reconstruction efforts. In addition, critical support for accessing green financing and risk insurance will be given to hazard-prone communities and highly vulnerable sectors such as MSMEs and small-scale farmers and fisherfolk. The country will also continue to uphold the principle of climate justice in

accessing international climate finance for adaptation and loss and damage.¹⁰

Addressing the intersecting climate vulnerabilities of development sectors requires partnership, collaboration, and convergence by all institutions. This includes sustaining actions on climate change adaptation and mitigation and disaster preparedness, relief, recovery, and reconstruction, such as: (a) crop diversification, effective fishery management, and other climate-resilient technologies and practices to improve agricultural productivity while reducing GHG emissions

(*See Chapter 5*); (b) flood regulation, setting up storage systems, and promoting efficient irrigation system to reduce groundwater extraction, sedimentation, and siltation (*See Chapter 12*); (c) scaling up investments in renewable energy and improving distribution efficiency; (d) scaling up and prioritizing electrification of public transport and transition to renewable energy (*See Chapter 12*); and (e) limiting construction in hazard-prone areas, allocating green spaces (*See Subchapter 2.3*), and improving regulation in building codes and permits.

Legislative Agenda

Within the medium term, concerned national government agencies will collaborate with the legislative branch toward enacting legislative measures to strengthen the protection and management of natural resources toward a sustainable and climate-resilient development. Table 15.1 contains priority bills for the 19th Congress during the Plan period to accelerate climate action and strengthen disaster resilience.

Table 15.1 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
Delineation of Specific Forest Limits Act	The bill intends to delineate the specific limits of forestlands for the conservation, protection, and development of the country's forest resources. Identifying the permanent boundary of forestlands will facilitate the determination of priority areas for protection, production, and utilization. This will also provide an enabling policy for the security of tenure to vulnerable forest-dependent communities.	DENR
Sustainable Forest Management Act	The bill aims to enhance forest ecosystems through reforestation and forest rehabilitation to mitigate climate change, improve and conserve biodiversity, enhance ecosystem functions and services, and provide long-term economic benefits.	DENR
Land Administration Reform Act	This bill aims to upgrade, systematize, and integrate the administration, management, and operations of the country's land resources. It also aims to improve, rationalize, and systematize land records, titling, documentation, and information systems into an open, updated, and reliable system. Land security enhances people's capacity to effectively manage their land resources and implement measures to adapt to climate change impacts.	DENR
Integrated Coastal Management (ICM) Act	This bill aims to institutionalize ICM as a national strategy to ensure the holistic and sustainable management of various ecosystems and natural resources through the "ridge-to-reef" approach. In addition, the bill pursues the development of an ICM Framework as a guide for local government units in building the resiliency of coastal communities to climate change and other hazards.	DENR
Natural Capital Accounting (NCA) Act	This bill aims to enable greater stakeholder engagement and sustain budgetary support for the implementation of NCA activities at the national and subnational levels. The institutionalization of the NCA will enable the government to quantify and internalize the economic costs and benefits of environmental and climate change externalities into policies and decisions.	DENR and Philippine Statistics Authority

Results Matrix

Table 15.2 contains year-by-year and end-of-plan indicators and targets that the government seeks to attain within each of the outcomes during the Plan period to accelerate climate action and strengthen disaster resilience.

Table 15.2 Results Matrix to Accelerate Climate Action and Strengthen Disaster Resilience

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER- AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Outcome 1: Climate and disaster risk resilience of communities and institutions increased										
Number of deaths attributed to disasters per 100,000 population decreased	0.446 (2021)	0.4014	0.3791	0.3568	0.3345	0.3122	0.2899	0.2899	Progress Report	Office of Civil Defense (OCD)
Number of missing persons attributed to disasters per 100,000 population decreased	0.0240 (2021)	0.0216	0.0204	0.0192	0.018	0.0168	0.0156	0.0156	Progress Report	OCD
Number of directly affected persons attributed to disasters per 100,000 population decreased	4,558.95 (2021)	4,103.06	3,875.11	3,647.16	3,419.21	3,191.27	2,963.32	2,963.32	Progress Report	OCD
Outcome 2: Ecosystem resilience enhanced										
Forest cover increased (%)	24.09 (2020)	24.53	24.83	24.84	24.95	25.13	25.23	25.23	Annual Progress Report of Agencies	DENR
Employment generated from resource-based enterprises or industries increased	2,547 (2021)	1,163	1,500	1,500	5,000	7,500	7,500	24,163	Annual Report	DENR
Outcome 3: Low-carbon economy transition enabled										
Mitigated GHG emissions increased (MtCO2e)*										
Energy	0 (2019)	0.39	0.44	0.51	0.59	0.69	0.78	3.40	Unconditional Nationally Determined Contribution (NDC) policies and measures (PAM)	Department of Energy (DOE)
Industrial process and product use	0 (2019)	0.33	0.39	0.47	0.54	0.62	0.71	3.06	Unconditional NDC PAMs	DENR
Waste	0 (2019)	0.76	0.80	0.83	0.89	1.04	1.08	5.40	Unconditional NDC PAMs	DENR
Transport	0 (2019)	3.58	3.96	4.13	4.37	4.86	5.14	26.04	Unconditional NDC PAMs	Department of Transportation

* Targets are limited to the unconditional policies and measures under the Philippines' Nationally Determined Contribution.

- ¹ Provides the framework for harmonizing and integrating efforts of various sectors and stakeholders on climate risk management and strengthening the country's early action system in view of the increasing losses and damages from recurring extreme weather events.
- ² OCD. 2022. The Philippines' Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 with a Short-term Review of the National Disaster Risk Reduction and Management Plan (2020-2030). National Disaster Risk Reduction and Management Council, Philippines. <https://www.preventionweb.net/media/84407/download>.
- ³ In 2018, the Philippines was ranked 82nd with an Environmental Performance Index score of 57.65. The country slipped into 111th in 2020 with a score of 38.4
- ⁴ Department of Science and Technology-Philippine Atmospheric, Geophysical and Astronomical Services Administration ((DOST-PAGASA), Manila Observatory, and Ateneo de Manila University. 2021. Philippine Climate Extremes Report 2020: Observed and Projected Climate Extremes in the Philippines to Support Informed Decisions on Climate Change Adaptation and Risk Management. PAGASA. <https://bagong.pagasa.dost.gov.ph/climate/climate-change/dynamic-downscaling#cep>.
- ⁵ Atwii, F., K. Bergtora, S. L. Kirch, et al. 2022. WorldRiskReport 2022—Focus: Digitalization. Bochum: Bündnis Entwicklung Hilft; and Institute for International Law of Peace and Armed Conflict, Ruhr University Bochum. https://reliefweb.int/attachments/6c1c1c6f-91d8-48ed-b8b5-b5918cc426a5/WorldRiskReport-2022_Online.pdf.
- ⁶ The Social Sector (i.e., Housing, Education, Health and Nutrition, Culture, and Social Protection) contributed to 45.21% of the total amount of the loss and damage. This was followed by the Productive Sector (i.e., Agriculture and Fisheries, Industry, Trade, and Services, Tourism, and Mining) at 33.58% then Infrastructure (i.e., Transportation, Power Supply, Water Supply, Irrigation System, Telecom, Flood Control) at 11.13%. The Cross-cutting Sector (i.e., Governance & DRRM, Environment, Livelihood and Employment, Macroeconomic Assessment and Social Impact Assessment) contributed least to the country's loss and damage from 2011 to 2021 at only 10.09%.
- ⁷ World Bank Group. 2022. Philippines Country Climate and Development Report. CCDR Series. <https://www.worldbank.org/en/country/philippines/publication/philippines-country-climate-and-development-report>.
- ⁸ World Bank Group. Data Bank: Environment and Social Governance. <https://databank.worldbank.org/source/environment-social-and-governance?preview=on#>.
- ⁹ Official Gazette. 2014. Executive Order 174, s. 2014: Institutionalizing the Philippine Greenhouse Gas Inventory Management and Reporting System. <https://www.officialgazette.gov.ph/2014/11/24/executive-order-no-174-s-2014/>.
- ¹⁰ In the context of the United Nations Framework Convention on Climate Change and Paris Agreement, L&D arising from the adverse effects of climate change can include those related to extreme weather events but also slow onset events, such as sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity, and desertification.

PART V

Plan Implementation, Monitoring, and Evaluation

16

Plan Implementation, Monitoring, and Evaluation



Plan Implementation, Monitoring, and Evaluation

Building on the gains of the previous Philippine Development Plan (PDP) 2017–2022 and learning from lessons of the coronavirus disease (COVID-19) pandemic, the PDP 2023–2028 shifts to higher gear toward economic transformation for a prosperous, inclusive, and resilient society.

This economic transformation calls for a whole-of-government and whole-of-society collaboration, which will be enabled through good governance, transparency, accountability, and evidence-based decision-making. Efficient and close coordination at various levels of government is crucial in implementation. The involvement and cooperation of the private sector during monitoring is deemed vital in ensuring that the government remains on track to achieving its targets. Timely assessment and evaluation will also be done to correct deviations.

Implementation

The government will set the necessary policies and regulatory environment and implement concrete programs, activities, and projects to achieve the targets set in the PDP 2023–2028. An executive order will be issued directing all government instrumentalities to adopt and align agency plans, roadmaps, and budgetary programs with the Plan. The National Economic and Development Authority (NEDA) Secretariat will work with implementing agencies on the prioritization of identified strategies, policies, programs, and projects, including the proposed legislation.

Given the interrelatedness of the strategies, inter-agency committees were identified to lead and coordinate the implementation of the Plan. They are enjoined to regularly discuss the status of the transformation agenda and pursue measures to expedite the rollout of strategies.

The NEDA Board will oversee the implementation of measures that directly contribute to the achievement of the headline targets as enumerated in Chapter 1: A Plan for Economic and Social Transformation.

Meanwhile, the NEDA Board Committees and existing clusters will steer the implementation of the chapter strategies. Table 16.1 lists the lead inter-agencies for the chapters.

The Social Development Committee will take the lead in ensuring that strategies are implemented to achieve the targets under Chapter 2: Promote Human Capital and Social Development. The Social Development Committee will also push for measures to increase the income-earning ability of Filipinos as identified in Chapter 4: Increase Income-Earning Ability.

Table 16.1 Coordination Mechanism

CHAPTER	RESPONSIBLE AGENCY/INTER-AGENCY BODY
Chapter 1: A Plan for Economic and Social Transformation	NEDA Board
Chapter 2: Promote Human and Social Development	Social Development Committee
Chapter 3: Reduce Vulnerabilities and Protect Purchasing Power	Economic Development Cluster*
Chapter 4: Increase Income-earning Ability	Social Development Committee
Chapter 5: Modernize Agriculture and Agribusiness	Economic Development Cluster*
Chapter 6: Revitalize Industry	Economic Development Cluster*
Chapter 7: Reinvigorate Services	Economic Development Cluster*
Chapter 8: Advance Research and Development, Technology, and Innovation	National Innovation Council
Chapter 9: Promote Trade and Investments	Inter-Agency Investment Promotions Coordination Committee; Committee on Tariff-Related Matters
Chapter 10: Promote Competition and Improve Regulatory Efficiency	Inter-Agency Committee on Good Governance
Chapter 11: Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance	Development Budget Coordination Committee
Chapter 12: Expand and Upgrade Infrastructure	Infrastructure Committee
Chapter 13: Ensure Peace and Security and Enhance the Administration of Justice	National Security Council and Justice Sector Coordinating Council
Chapter 14: Practice Good Governance and Improve Bureaucratic Efficiency	Inter-Agency Committee on Good Governance
Chapter 15: Accelerate Climate Action and Strengthen Disaster Resilience	Cabinet Cluster on Climate Change Adaptation, Mitigation, and Disaster Risk Reduction*

* Or the equivalent NEDA Board Committee.

The Economic Development Cluster or the equivalent NEDA Board Committee will ensure that measures identified in Chapter 3: Reduce Vulnerabilities and Protect Purchasing Power are pursued. The EDC will also expedite the implementation of measures to transform the production sectors, as identified in Chapter 5: Modernize Agriculture and Agribusiness, Chapter 6: Revitalize Industry, and Chapter 7: Reinvigorate Services.

The National Innovation Council will steer the implementation of measures to advance research and development, technology, and innovation (Chapter 8: Advance Research and Development, Technology, and Innovation), driving an innovation-based transformation for various sectors.

The transformation agenda will also be supported by strategies that promote trade and investments (Chapter 9: Promote Trade and Investments), to be steered by the Inter-Agency Investment Promotions Coordination Committee, and the tariff and non-tariff policies to be tackled by the Committee on Tariff-Related Matters. Policies promoting competition and improving regulatory efficiency (Chapter 10: Promote Competition and Improve Regulatory Efficiency) will be led by the Inter-Agency Committee on Good Governance.

To promote macroeconomic stability (Chapter 11: Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance), the Development Budget

Coordination Committee will ensure that fiscal and financial policies are sound and supportive of transformation. Meanwhile, the Infrastructure Committee will pursue the expansion and upgrading of the country's infrastructure (*See Chapter 12: Expand and Upgrade Infrastructure*).

For Chapter 13: Ensure Peace and Security and Enhance the Administration of Justice, the National Security Council will lead the implementation of strategies to ensure peace and security (*See Subchapter 13.1*) while the Justice Sector Coordinating Council will have

oversight on enhancing administration of justice (*See Subchapter 13.2*). Meanwhile, good governance and the enhancement of bureaucratic efficiency (Chapter 14: Practice Good Governance and Improve Bureaucratic Efficiency) will be steered by the Inter-Agency Committee on Good Governance; and the acceleration of climate action and disaster resilience (Chapter 15: Accelerate Climate Action and Strengthen Disaster Resilience) will be steered by the Cluster on Climate Change, Adaptation, Mitigation, and Disaster Risk Reduction.

Monitoring and Evaluation

The progress toward achievement of the identified outcomes will be monitored and assessed using indicators and interim targets as identified in the accompanying Results Matrix (RM). The RM was instituted in 2011 as an instrument designed to provide results orientation to the Plan. It is anchored on results-based management, which highlights the achievement of outcomes and impact. It aims to strengthen government-wide results orientation, which shall allow for regular performance assessment of the Plan.

The RM is a living document that should be referred to and updated regularly to ensure responsiveness to the country's continuously evolving development landscape. To assess the progress toward achieving the Plan, the NEDA Secretariat shall annually prepare the Socioeconomic Report (SER) to present actual accomplishments in terms of outputs and outcomes as contained in the PDP and the RM. This report shall also identify

key challenges toward the achievement of results and provide policy directions moving forward.

Gaps and weaknesses in data generation (e.g., unavailable regional breakdown, absence of appropriate methodology to measure indicator progress) for the monitoring of the Plan will likewise be identified in the SER. To address the gaps, the following strategies will be employed:

(a) Strengthening the collection of data.

The Philippine Statistics Development Program will remain the primary mechanism to address the data requirements for the monitoring of the PDP and other sectoral plans and regional plans. It is envisioned to set the directions, thrusts, and priorities of the Philippine Statistical System in the medium term for the generation and dissemination of statistical information for policy- and decision-making

of the government, private sector, and general public.

- (b) **Improving analysis, reporting, and use of monitoring data.** Making the information on the annual accomplishment of RM indicators and the likelihood of attaining end-of-plan targets available in an online platform is important in maintaining public accountability and enhancing stakeholder engagement. This may be facilitated through the use of data visualization solutions such as storyboards, infographics, and dashboards, among others. Following the open data policy of the government, the creation of such a platform shall improve the

accessibility and comprehension of PDP monitoring data.

- (c) **Enhancing capacities to monitor the Plan.** The reporting agencies identified in the RM should continue to enhance their capacities to monitor the Plan toward ensuring the provision of quality and timely data. To facilitate this, human and financial resources to strengthen capacities for data collection, analysis, and reporting, as well as statistical literacy at the national and sub-national levels should be adequately allocated. Stronger partnerships with development partners, civil society organizations, and academe shall be pursued to support continuous enhancement of knowledge, skills, processes, and systems on monitoring.

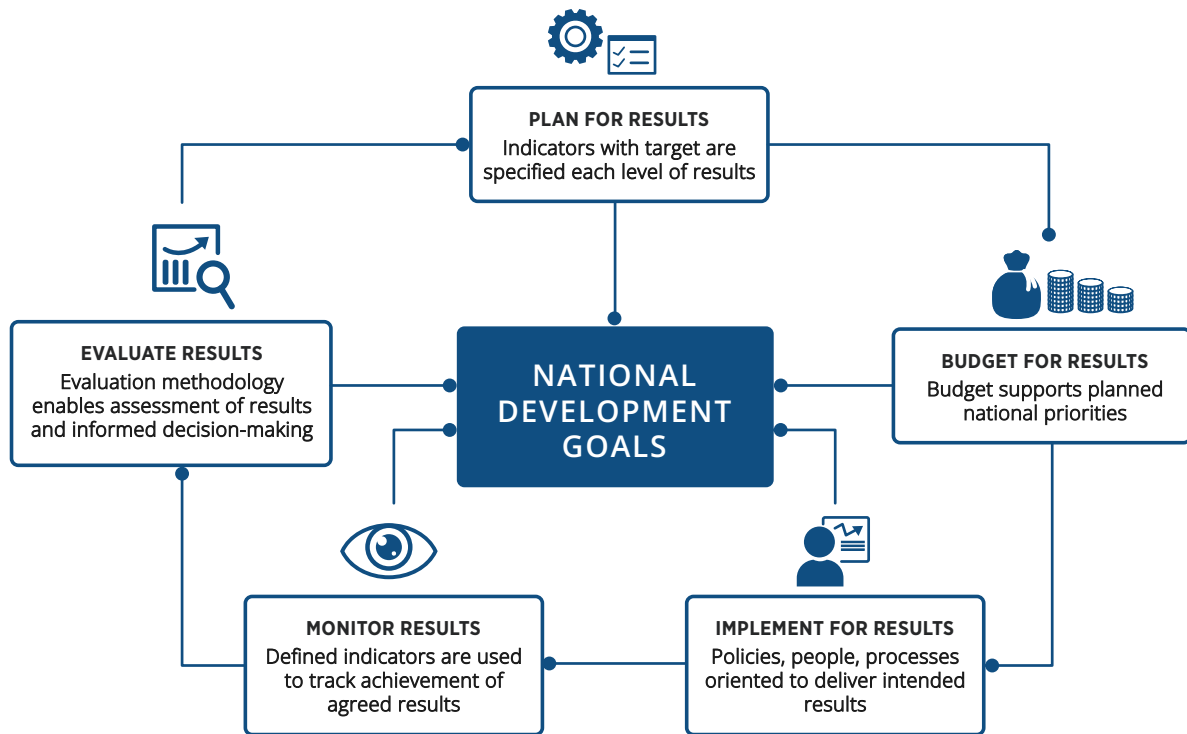
Evaluation Agenda for the Philippine Development Plan 2023–2028

NEDA and the Department of Budget and Management (DBM) adopted the National Evaluation Policy (NEP) Framework in 2015¹ in line with the government's continuing efforts to strengthen its results orientation (See *Figure 16.1*). The National Evaluation Policy Framework underscores the need to develop an evaluative culture in the government by providing the framework for the purposive conduct of evaluations in

support of good governance, transparency, accountability, and evidence-based decision-making.

As NEDA takes the lead in the formulation of the PDP and oversees its implementation, the agency is in the strategic position to be at the helm in the systematic, rigorous, and impartial assessment of its progress.

Figure 16.1 Evaluation and the Public Sector Management Cycle



Source: Asian Development Bank. (2011). *Framework for Results-Based Public Sector Management and Country Cases*. Asia-Pacific Community of Practice on Managing for Development Results. Manila. <https://www.oecd.org/dac/peer-reviews/Asia%20pacific%20cop%202011%20Framework%20for%20RBPSM%20and%20Country%20Cases.pdf>.

A national evaluation agenda will be crafted to set out the priority evaluations that the government will pursue as a means of measuring and obtaining evidence on results derived from strategies and priority interventions laid out in the plan and the RM. Evaluation will particularly play key roles in (a) informing further articulation of the PDP and implementation of programs; (b) conveying progress achieved against priority areas of investment; and (c) promoting transparency and accountability by making evaluation results accessible to all branches of government, and most importantly, to the public. Toward this end, the government will adopt the following key strategies:

- (a) **Undertake scoping studies to identify knowledge gaps and the corresponding evaluation studies to create evidence that will inform** the implementation of priority programs and projects of this administration. These evaluative studies are also intended to inform updating of the current PDP and the formulation of the successor Plan. Agencies should draw on existing evaluation initiatives if available; if not, evaluations may be commissioned.
- (b) **Strengthen the collection, analysis, and use of evaluation data to promote evidence-based and data-driven decision-making.** At the outcome level of the PDP, the government will continue

to collect data on the situation of the Filipino people through regular surveys and explore the application of new and innovative methods to gather data to be used for evaluation.

(c) Support the enactment of a National Evaluation Policy to accelerate efforts in institutionalizing evaluation practice in the government.

The National Evaluation Policy comprises necessary instruments for guiding the practice of monitoring and evaluation within national development programs as they provide principles and standards for data collection and management, utilization, and financing, among others.²

(d) Strengthen the capacity of agencies to conduct and utilize evaluations.

To effectively develop capacities, technical knowledge of evaluations at the individual level should be complemented by opportunities for hands-on application. Nevertheless, the government should also aim to establish a structured training program for evaluation that is widely available, along with supplementary learning resources such as handbooks.

(e) Effectively communicate evaluation findings to increase utilization and influence of evaluations.

Capacity development and the practice of evaluations will be supported by a culture of evidence-based decision-making to ensure its mainstreaming. This entails having an institutionalized evaluation unit to manage and advocate for evaluation activities within each agency of the bureaucracy. This unit will ensure that prioritization and utilization of evaluations are integrated into higher-level processes such as agency planning and project development. Documentation of monitoring and evaluation activities and learning also ensure that new program teams can leverage institutional knowledge built from previous projects.

The NEDA Secretariat will also consult with the PDP Advisory Committee on the assessment of strategies and their effectiveness in achieving the targets and outcomes. The PDP Advisory Committee will be convened during the midterm update preparations, and more frequently if necessary.

- ¹ National Economic and Development Authority and Department of Budget and Management. (2015). Joint Memorandum Circular No. 2015-01: National Evaluation Policy Framework of the Philippines. July 15, 2015. Retrieved from <https://nep.neda.gov.ph/document/NEDA-DBM%20Joint%20Memorandum%20Circular%20No.%202015-01%20-%20National%20Evaluation%20Policy%20Framework%20of%20the%20Philippines.pdf>.
- ² Mwaijande, F. (2018). Why Should Countries Have National Evaluation Policies? eVALUation Matters. Retrieved from https://i.dev.afdb.org/sites/default/files/Evaluations/2020-03/Why%20Should%20Countries%20have%20National%20Evaluation%20Policies_F%20Mwaijande_0.pdf.

Acronyms

4IR	Fourth Industrial Revolution
4Ps	Pantawid Pamilyang Pilipino Program
5G	Fifth Generation Mobile Network
A&F	Agriculture and Fisheries
ABEMIS	Agricultural and Biosystems Engineering Management Information System
ACPC	Agricultural Credit Policy Council
ADAS	Advanced Driver Assistance Systems
ADB	Asian Development Bank
ADR	Alternative Dispute Resolution
AFF	Agriculture, Forestry, and Fisheries
AFP	Armed Forces of the Philippines
AI	Artificial Intelligence
AI	Avian Influenza
AIDS	Acquired Immunodeficiency Syndrome
ALS	Alternative Learning System
AMCen	Advanced Manufacturing Center
AMERIAL	Advanced Mechatronics, Robotics, and Industrial Automation Laboratory
ANYO	Agri-Negosyo Loan Program
APIS	Annual Poverty Indicators Survey
APTERR	ASEAN Plus Three Emergency Rice Reserve
AQRF	ASEAN Qualification Reference Framework
ARB	Agrarian Reform Beneficiaries
ARMM	Autonomous Region in Muslim Mindanao
ARTA	Anti-Red Tape Authority
ASEAN	Association of Southeast Asian Nations
ASF	African Swine Fever
ASPBI	Annual Survey of Philippines Business and Industry
BADAC	Barangay Anti-Drug Abuse Council
BAFE	Bureau of Agricultural and Fisheries Engineering
BAFS	Bureau of Agriculture and Fisheries Standards
BAI	Bureau of Animal Industry
BARM	Bangsamoro Autonomous Region in Muslim Mindanao
BCP	Business Continuity Plan
BDP	Barangay Development Program
BEFF	Basic Education Facilities Fund
BEPS	Base Erosion and Profit Shifting
BFAR	Bureau of Fisheries and Aquatic Resources
BFP	Bureau of Fire Protection
BIR	Bureau of Internal Revenue
BIST	Business Innovation through Science and Technology
BLGF	Bureau of Local Government Finance
BMCRRP	Bangon Marawi Comprehensive Rehabilitation and Recovery Program
BNS	Barangay Nutrition Scholar
BOC	Bureau of Customs

BOI	Board of Investments
BOL	Bangsamoro Organic Law
BOP	Balance of Payments
BPI	Bureau of Plant Industry
BPO	Business Process Outsourcing
BPS	Bureau of Philippine Standards
BRIGADE	Bid-Rigging Intelligence Gathering and Detection Enforcement
BSFI	BSP-Supervised Financial Institutions
BSP	Bangko Sentral ng Pilipinas
BSWM	Bureau of Soils and Water Management
BTA	Bangsamoro Transition Authority
BTr	Bureau of the Treasury
BUR	Budget Utilization Rate
CAAP	Civil Aviation Authority of the Philippines
CAB	Comprehensive Agreement on the Bangsamoro
CAIR	Center for Artificial Intelligence Research
CAR	Cordillera Administrative Region
CAR	Capital Adequacy Ratio
CARP	Comprehensive Agrarian Reform Program
CARS	Comprehensive Automotive Resurgence Strategy
CBA-CPLA	Cordillera Bodong Administration-Cordillera People's Liberation Army
CBFMA	Community-Based Forest Management Agreements
CBMS	Community-Based Monitoring System
CCA	Climate Change Adaptation
CCAM	Climate Change Adaptation and Mitigation
CCC	Climate Change Commission
CCS	Carbon Capture and Storage
CDA	Cooperative Development Authority
CDC	Center for Disease Control and Prevention
CDP	Comprehensive Development Plan
CDRA	Climate and Disaster Risk Assessment
CES	Career Executive Service
CESB	Career Executive Service Board
CET 1	Common Equity Tier 1
CHE	Current Health Expenditure
CHED	Commission on Higher Education
CHR	Commission on Human Rights
CIDC	Creative Industry Development Council
CII	Critical Information Infrastructure
CIRAS	Crime Incident Reporting and Analysis System
CISS	Children in Street Situation
CJIX	Criminal Justice Information Exchange
CLC	Community Learning Centers
CLOA	Certificate of Land Ownership Award
CLUP	Comprehensive Land Use Plan
COA	Commission on Audit

ConsumerNet	Consumer Network
COVID	Coronavirus Disease
COVID-19	Coronavirus Disease 2019
CPA	Citizens Participatory Audit
CPI	Corruption Perceptions Index
CPP-NPA-NDF	Communist Party of the Philippines-New People's Army-National Democratic Front
CRADLE	Collaborative Research and Development to Leverage Philippine Economy
CREATE	Corporate Recovery and Tax Incentives for Enterprises
CREVI	Comprehensive Roadmap for Electric Vehicle Industry
CRM	Customer Relationship Management
CSC	Civil Service Commission
CSO	Civil Society Organization
CSOP	Community and Service Oriented Policing
CSPP	Conflict Sensitivity and Peace Promotion
CTEC	Community Training and Employment Coordinators
DA	Department of Agriculture
DAP	Development Academy of the Philippines
DAR	Department of Agrarian Reform
DBCC	Development Budget Coordination Committee
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DFA	Department of Foreign Affairs
DHSUD	Department of Human Settlements and Urban Development
DICT	Department of Information and Communications Technology
DILG	Department of the Interior and Local Government
DMW	Department of Migrant Workers
DND	Department of National Defense
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOJ-OFC	DOJ - Office for Competition
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTr	Department of Transportation
DPTR	Digital Payments Transformation Roadmap
DPWH	Department of Public Works and Highways
DPWH-BOD	DPWH - Bureau of Design
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
DTP	Devolution Transition Plan
DVA	Domestic Value Added

DX Roadmap	Digital Transformation Roadmap
EBEIS	Enhanced Basic Education Information System
e-BOSS	Electronic Business One-Stop Shop
EBT	Enterprise-Based Training
EC	Electric Cooperative
ECCD	Early Childhood Care and Development
E-CLIP	Enhanced Comprehensive Local Integration Program
EEC	Energy Efficiency and Conservation
e-FOI	Electronic Freedom of Information
EITI	Extractive Industries Transparency Initiative
EKTI	Emerging Knowledge-and-Technology Intensive Industries
EMB	Export Marketing Bureau
ENNS	Expanded National Nutrition Survey
ENRO	Environment and Natural Resource Officers
ENSO	El Niño-Southern Oscillation
EO	Executive Order
EODB EGSD	Ease of Doing Business and Efficient Government Service Delivery
EPAHP	Enhanced Partnership Against Hunger and Poverty
EPI	Environmental Performance Index
EPI	E-Participation Index
EPIRA	Electric Power Industry Reform Act
EPR	Extended Producer Responsibility
EPR	Enterprise Resource Planning
ERC	Energy Regulatory Commission
ESD	Education for Sustainable Development
ESG	Environmental, Social, Governance
EVIDA	Electric Vehicle Industry Development Act
EVIS	Electric Vehicle Incentive Strategy
EV	Electric Vehicle
E-Waste	Electronic Waste
EWS	Early Warning System
F2C2	Farm and Fisheries Clustering and Consolidation Program
FARA	Financial Accounts Regulation Act
FDA	Food and Drug Administration
FDI	Foreign Direct Investment
FFEDIS	Farmers and Fisherfolk Enterprise Development Information System
FIA	Foreign Investment Act
FIES	Family Income and Expenditure Survey
FIRe	Fourth Industrial Revolution
FI	Financial Institution
FISC	Financial Inclusion Steering Committee
FIST Act	Financial Institutions Strategic Transfer Act
FMA	Fisheries Management Area
FMR	Farm-to-Market Road
FMRDP	Farm-to-Market Road Development Program
FNRI	Food and Nutrition Research Institute

FOI	Freedom of Information
FP	Family Planning
FSCC	Financial Stability Coordination Council
FSI	Food Security Index
FSP	Financial Service Provider
FTA	Free Trade Agreement
FTS	Foreign Trade Statistics
GBV	Gender-Based Violence
GBV-SEAH	Gender-Based Violence-Sexual Exploitation, Abuse and Sexual Harassment
GCED	Global Citizenship Education
GCG	Governance Commission for GOCCs
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GEA	Green Energy Auction
GEDSI	Gender Equality, Disability, and Social Inclusion
GEOAGRI	Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure
GEOP	Green Energy Option Program
GERD	Gross Expenditure on Research and Development
GESI	Gender Equality and Social Inclusion
GFI	Government Financing Institution
GHG	Greenhouse Gas
GICA	Geographically Isolated and Conflict-Affected
GIDA	Geographically Isolated and Disadvantaged Areas
GII	Global Innovation Index
GIS	Geographic Information System
GMV	Gross Market Value
GNI	Gross National Income
GOCC	Government-Owned and Controlled Corporation
GOMP	Grid Operation and Maintenance Program
GPH	Government of the Philippines
GPPB	Government Procurement Policy Board
GQMP	Government Quality Management Program
GRDP	Gross Regional Domestic Product
GSIS	Government Service Insurance System
GSP+	Generalized Scheme of Preferences Plus
GSS	Green, Social, and Sustainability
GVA	Gross Value Added
GVC	Global Value Chain
ha	Hectares
HADR	Humanitarian Assistance and Disaster Response
HCPN	Health Care Provider Network
HEI	Higher Education Institutions
HFEP	Health Facilities Enhancement Program
HGDG	Harmonized Gender and Development Guidelines
HH	Household
HIV	Human Immunodeficiency Virus

HLS	Health and Life Science
HMO	Health Maintenance Organization
HNRDA	Harmonize National Research and Development Agenda
HR	Human Resources
HRH	Human Resources for Health
HRMO	Human Resource and Management Office
HRO	Housing and Resettlement Office
HS	Harmonised System
HUC	Highly Urbanized City
HVC	High Value Crops
I4PF	Industry 4.0 Pilot Factory
IBP	Integrated Bar of the Philippines
IBPAP	IT and Business Process Association of the Philippines
IC	Insurance Commission
ICC	Indigenous Cultural Communities
ICCMN	Inter-Cabinet Cluster Mechanism on Normalization
ICT	Information and Communication Technology
ID	Industrial Design
IDP	Internally Displaced Person
IEC	Information, Education, and Communication
IEET	Industry, Energy, and Emerging Technologies
IF	Inclusive Framework
IFMA	Integrated Forest Management Agreement
IGR	Intergovernmental Relations
IIC	Inclusive Innovation Center
IIPCC	Inter-Agency Investment Promotion Coordination Committee
ILO	International Labour Organization
ILRC	Inclusive Learning Resource Centers
IMD	International Institute for Management Development
IMF	International Monetary Fund
IMT	Industrial, Manufacturing, and Transportation
IoT	Internet of Things
IP	Indigenous People
IP	Intellectual Property
IPA	Investment Promotion Agency
IPC	Integrated Food Security Phase Classification
IPO	Initial Public Offering
IPOPHL	Intellectual Property Office of the Philippines
IRR	Implementing Rules and Regulations
ISF	Informal Settler Families
ISP	Internet Service Provider
IT	Information Technology
IT-BPM	Information Technology and Business Process Management
IT-BPO	Information Technology-Business Process Outsourcing
IWRM	Integrated Water Resources Management
JMC	Join Memorandum Circular

JSCC	Justice Sector Coordinating Council
KAYA	<i>Kapital</i> Access for Young Agripreneurs
KIST	Knowledge, Innovation, Science and Technology
KSA	Key Shelter Agency
KTI	Knowledge-and-Technology Intensive Industries
kWh	Kilowatt-hour
LB	Live Birth
LANDBANK	Landbank of the Philippines
LCAC	Local Culture and Arts Councils
LCCAP	Local Climate Change Action Plan
LCY	Local Currency
LDC	Local Development Council
LDRMO	Local Disaster Risk Reduction and Management Office
LDRMP	Local Disaster Risk Reduction and Management Plan
LET	Licensure Examination for Teachers
LFPR	Labor Force Participation Rate
LFS	Labor Force Survey
LFS-APIS	Labor Force Survey-Annual Poverty Indicator Survey
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning
LGBTQIA	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, Asexual,
LGU	Local Government Unit
LHB	Local Housing Board
LIS	Learner Information System
LMIS	Labor Market Information Systems
LNG	Liquefied Natural Gas
LPCC	Local Price Coordinating Council
LPD	Livestock, Poultry, and Dairy
LPE	Local Peace Engagements
LPI	Legatum Prosperity Index
LRA	Land Registration Authority
LSB	Local Special Bodies
LSP	Local Shelter Plan
LSP	Logistics Services Philippines
LUC	Local Universities and Colleges
M&A	Mergers and Acquisitions
MARIS	Maritime Route Rationalization and Information System
MBN	Modern Basic Needs
Mbps	Megabits per Second
MC	Memorandum Circular
MFI	Microfinance Institutions
MFP	Modern Family Planning
MIDP	Maritime Industry Development Plan
MILF	Moro Islamic Liberation Front
MIS	Management Information Systems
MMT	Million Metric Tons
MNC	Multinational Corporation or Company

MNLF	Moro National Liberation Front
MOOC	Massive Open Online Courses
MRA	Mutual Recognition Agreement
MRC	Medical Reserve Corps
MRF	Materials Recovery Facility
MRO	Maintenance, Repair, and Overhaul
MRV	Measurement, Reporting, and Verification
MSME	Micro, Small, and Medium Enterprise
MSMED	Micro, Small, and Medium Enterprise Development
MT	Metric Tons
MTFF	Medium-Term Fiscal Framework
MUP	Military and Uniformed Personnel
NAFMIP	National Agriculture and Fisheries Modernization and Industrialization Plan
NAP	National Adaptation Plan
NAP-CBRN	National Action Plan on Chemical, Biological, Radiological, and Nuclear
NAST	National Academy of Science and Technology
NAT	National Achievement Test
NBI	National Bureau of Investigation
NBS	Nature Based Solution
NCA	Natural Capital Accounting
NCCAP	National Climate Change Action Plan
NCD	Non-communicable Disease
NCDA	National Council on Disability Affairs
NCIP	National Commission on Indigenous Peoples
NCP	National Competition Policy
NCR	National Capital Region
NCRMF	National Climate Risk Management Framework
NDA	National Dairy Authority
NDC	National Development Company
NDC	Nationally Determined Contribution
NDRRMC	National Disaster Risk Reduction and Management Council
NDRRMF	National Disaster Risk Reduction and Management Fund
NDRRMP	National Disaster Risk Reduction and Management Plan
NEAP	National Educators' Academy of the Philippines
NEAP	National Employment Action Plan
NEDA	National Economic and Development Authority
NEET	Not in Education, Employment, or Training
NEHEMIA	National Effort for the Harmonization of Efficient Measures of Inter-related Agencies
NEMEAS	National ECCD Monitoring and Evaluation and Accountability System
NEP	National Education Portal
NERS	National Employment Recovery Strategy
NFA	National Food Authority
NFFRS	National Farmers and Fisherfolk Registry System
NFSCC	National Framework Strategy on Climate Change
NG	National Government
NGA	National Government Agency

NGO	Non-Government Organization
NGRP	National Government Rightsizing Program
NHA	National Housing Authority
NHMFC	National Home Mortgage Finance Corporation
NHRHMP	National Human Resources for Health Master Plan
NIA	National Income Accounts
NIASD	National Innovation and Agenda Strategy Document
NIC	National Innovation Council
NICER	Niche Centers in the Regions for Research and Development
NICP	National Innovation Communication Plan
NIMEX	National Innovation Monitoring and Evaluation Matrix
NIMP	National Irrigation Master Plan
NIS	National Irrigation Systems
NJIS	National Justice Information System
NMIS	National Meat Inspection Service
NMIS	National Measurement Infrastructure System
NMP	National Master Plan
NNC	National Nutrition Council
NPCC	National Price Coordinating Council
NPL	Non-Performing Loan
NPRMS	National Policy on Regulatory Management System
NPS	National Prosecution Service
NPS	National Payment Systems
NPSA	National Payment Systems Act
NQI	National Quality Infrastructure
NRPF	National Resettlement Policy Framework
NRPS	National Retail Payment System
NSFI	National Strategy for Financial Inclusion
NSS	National Spatial Strategy
NSW	National Single Window
NSWMC	National Solid Waste Management Commission
NTA	National Tax Allotment
NTC	National Telecommunications Commission
NTESDP	National Technical Education and Skills Development Plan
NTF-DPAG	National Task Force on the Disbandment of Private Armed Groups
NTF-ELCAC	NTF to End Local Communist Armed Conflict
NTM	Non-Tariff Measure
NTMP	National Transportation Master Plan
NTP	National Transport Policy
NUDHF	National Urban Development and Housing Framework
NWPC	National Wages and Productivity Commission
NWRB	National Water Resources Board
NWSRM	National Water Security Road Map
OADR	Office for Alternative Dispute Resolution
OBI	Open Budget Index
OCD	Office of Civil Defense

ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OER	Open Educational Resources
OF	Overseas Filipinos
OFOC	Open Finance Oversight Committee
OFW	Overseas Filipino Worker
OOP	Out-of-Pocket
OPAPRU	Office of the Presidential Adviser on Peace, Reconciliation, and Unity
OPMS	Online Price Monitoring System
OSAEC	Online Sexual Abuse and Exploitation of Children
OTOP	One Town, One Product
OWWA	Overseas Workers Welfare Administration
P/E	Price-to-Earnings Ratio
PAA	Performance Assessment and Audit
PAASE	Philippine American Academy of Science and Engineering
PADS	Philippine Anti-Illegal Drugs Strategy
PAFES	Province Led Agriculture and Fisheries Extension System
PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PALS	Philippine Association of Law Schools
PAM	Policies and Measures
PAMANA	<i>Payapa at Masaganang Pamayanan</i>
PAO	Public Attorney's Office
PAP4SCP	Philippine Action Plan for Sustainable Consumption and Production
PBB	Performance-Based Bonus
PBRIS	Philippine Business Regulations Information System
PBS	Philippine Banking System
PCA	Philippine Competition Act
PCA	Permanent Court of Arbitration
PCC	Philippine Competition Commission
PCECP	Philippine Conventional Energy Contracting Program
PCG	Philippine Coast Guard
PCIC	Philippine Crop Insurance Corporation
PCIDA	Philippine Creative Industries Development Act
PCM	Province/City/Municipality
PCVE	Preventing and Countering Violent Extremism
PDEA	Philippine Drug Enforcement Agency
PDG	Project Development Grant
PDIC	Philippine Deposit Insurance Corporation
PDL	Persons Deprived of Liberty
PDP	Philippine Development Plan
PDRRF	Post-Disaster Rehabilitation and Recovery Framework
PEDP	Philippine Export Development Plan
PES	Payment for Environmental Service
PESO	Public Employment Service Office
PEZA	Philippine Economic Zone Authority
PFM	Public Financial Management

PHC	Primary Health Care
PHFDP	Philippine Health Facility Development Plan
PhilGEPS	Philippine Government Electronic Procurement System
PHILGUARANTEE	Philippine Guarantee Corporation
PhilHealth	Philippine Health Insurance Corporation
PhilMech	Philippine Center for Postharvest Development and Mechanization
PhilRice	Philippine Rice Research Institute
PhilSA	Philippine Space Agency
PhilSys	Philippine Identification System
PHLS	Philippine Public Health Laboratory System
PH-OGP	Philippine Open Government Partnership
PH-PROGRESO	Philippine Program for Recovery with Equity and Solidarity
PIDS	Philippine Institute for Development Studies
PIFITA	Passive Income and Financial Intermediary Taxation Act
PISA	Programme for International Student Assessment
PLEA	Production Easy Loan Access
PM 10	Particulate Matter measuring 10 micrometers in diameter or smaller
PM 2.5	Particulate Matter measuring 2.5 micrometers in diameter or smaller
PMI	Purchasing Manager's Index
PNP	Philippine National Police
POC	Persons of Concern
POC	Peace and Order Council
PODRS	Philippine Online Dispute Resolution System
PPA	Philippine Ports Authority
PPE	Personal Protective Equipment
PPMI	Philippine Payments Management, Inc.
PPP	Public-Private Partnership
PQF	Philippine Qualifications Framework
PQF-NCC	PQF-National Coordinating Council
PRC	Professional Regulation Commission
PSA	Philippine Statistics Authority
PSA	Public Service Act
PSC	Philippine Sports Commission
PSCC	Philippine Standard Commodity Classification
PSEI	Philippine Stock Exchange Index
PSF	Philippine Skills Framework
PSF	People's Survival Fund
PSIC	Philippine Standard Industrial Classification
PSTO	Provincial Science and Technology Office
PTTI	Passive Telecommunications Tower Infrastructure
PUV	Public Utility Vehicle
PUV SCP	PUV Service Contracting Program
PUVMP	PUV Modernization Program
PWD	Person with Disability
PWSSMP	Philippine Water Supply and Sanitation Master Plan
QS	Quacquarelli Symonds

R&D	Research and Development
RA	Republic Act
RCA	Revealed Comparative Advantage
RCEP	Regional Comprehensive Economic Partnership
RCOA	Retail Competition and Open Access
RCP	Representative Concentration Pathway
RDC	Regional Development Council
RDE	Research, Development, and Extension
RDI	Research, Development, and Innovation
RDI	Research and Development Institutions
RDLead	R&D Leadership
RE	Renewable Energy
RECP	Resource-Efficient and Cleaner Production
REDD+	Reduce Emissions from Deforestation and Forest Degradation
RIIC	Regional Inclusive Innovation Center
RORO	Roll-On/Roll-Off
RPL	Recognition of Prior Learning
RPMP-RPA-ABB	Rebolusyonaryong Partido Manggagawang Pilipinas-Revolutionary Proletariat Army-Alex Boncayao Brigade
RPS	Renewable Portfolio Standards
RSBSA	Registry System for Basic Sectors in Agriculture
RTLA	Retail Trade Liberalization Act
S&T	Science and Technology
S4CP	Science for Change Program
SALN	Statement of Assets, Liabilities, and Net Worth
SAP	Social Amelioration Program
SBFP	School-Based Feeding Program
SBM	School-Based Management
SC	Supreme Court
SDD	Sex-Disaggregated Data
SDS	Social Development Staff
SEC	Securities and Exchange Commission
SEF	Special Education Fund
SEIPI	Semiconductor and Electronics Industries in the Philippines Foundation, Inc.
SEZ	Special Economic Zone
SGC	School Governing Council
SGLG	Seal of Good Local Governance
SHFC	Socialized Housing Finance Corporation
SIA	Survey on Innovation Activities of Establishments
SICT	Survey on Information and Communication Technology
SIPP	Strategic Investment Priority Plan
SIRI	Smart Industry Readiness Index
SLF	Sanitary Landfill Facilities
SLM	Self-Learning Modules
SME	Small and Medium Enterprise
SMP	Significant Market Power
SP	Social Protection

SPES	Special Program for Employment of Students
SPI	Social Protection Index
SRDP	Strengthening and Revitalizing of the Self-Reliant Defense Posture
SSF	Shared Services Facility
SSS	Social Security System
SSTA	Space Science and Technology Applications
STEAM	Science, Technology, Engineering, Agriculture-fisheries, and Mathematics
STEAM	Science, Technology, Engineering, Entrepreneurship Arts, and Mathematics
STEM	Science, Technology, Engineering, and Mathematics
STI	Science, Technology, and Innovation
STP	Science and Technology Park
SUC	State University and College
SUF	Spectrum User Fees
SURE	Survival and Recovery
SWM	Solid Waste Management
SY	School Year
TAPPP	Transport Accreditation Permit and Pass for Ports
TB	Tuberculosis
TBI	Technology Business Incubator
TESDA	Technical Education and Skills Development Authority
THE	Times Higher Education
TIMSS	Trends in International Mathematics and Science Study
TIVA	Trade in Value-Added
TMT	Technology, Media, and Telecommunication
TRAIN	Tax Reform for Acceleration and Inclusion
TSS	Teacher Salary Subsidy
TTBDO	Technology Transfer and Business Development Office
TTMF	Temporary Treatment and Monitoring Facility
TUPAD	Tulong Panghanapbuhay sa Ating Disadvantaged/Displaced Workers
TVET	Technical and Vocational Education and Training
TVI	Technical and Vocational Institutes
UDHA	Urban Development and Housing Act
UHC	Universal Health Care
UKB	Universal and Commercial Banks
ULE	Updating of the List of Establishments
ULP	Unified Logistics Pass
UM	Utility Model
UN	United Nations
UNCAT	UN Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment
UNESCO	UN Educational, Scientific, and Cultural Organization
UNFCCC	UN Framework Convention on Climate Change
UP	University of the Philippines
UP-SIBOL	University of the Philippines - Surgical Innovation and Biotechnology
VAT	Value-Added Tax
VIP	Virology and Vaccine Institute of the Philippines
WACS	Waste Analysis and Characterization Study

WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
WSP	Water Service Provider
WSS	Water Supply and Sanitation
WtE	Waste-to-Energy
WTO	World Trade Organization
YoY	Year-on-Year

Glossary

[Quality] Apprenticeship	A unique form of technical vocational education and training, combining on-the-job training and off-the-job learning, which enable learners from all walks of life to acquire the knowledge, skills and competencies required to carry out a specific occupation. (International Labour Organization [ILO], n.d.)
Absorptive Capacity	A measure of an agency's ability to maximize the use of financial resources made available to it.
Abuse of Dominance	Occurs when a dominant firm in a market or group of firms engages in conduct that is intended to eliminate or discipline a competitor or to deter future entry by new competitors, leading to substantially lessened competition (Competition Bureau of Canada, 2018). Abuses of dominance prohibited by the PCA include predatory pricing; exploitative behavior toward consumers, customers, and/or competitors; discriminatory behavior; and limiting production, markets or technical development to the detriment of consumers. (Republic Act No. 10667, 2015)
Acquisition	Refers to the purchase of securities or assets, through contract or other means, for the purpose of obtaining control by: (a) One entity of the whole or part of another; (b) Two or more entities over another; or (c) One or more entities over one or more entities. (RA 10667, 2015)
Active Transportation	Using your own power to get from one place to another. This includes: walking, biking, skateboarding. (Department of Interior and Local Government [DILG], 2020)
Adaptation	The process of adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. (RA 9729, 2009)
Adaptive Social Protection	Focuses on the potential of linking social protection, disaster risk reduction and management (DRRM) and climate change action (CCA) to enhance households' resilience to shocks and stresses for agriculture-dependent rural communities. This approach uses social protection tools and mechanisms to tackle climate risks and improve capacities for humanitarian aid to respond to and anticipate the impact of climate change while strengthening opportunities of vulnerable groups. Department of Social Welfare and Development [DSWD] and United Nations Food and Agriculture Organization [UNFAO], 2021)
Adults' Ownership Of Financial Account	The percentage of adults (ages 15+) who report having an account (by themselves or together with someone else) at a bank or another type of financial institution or personally using a mobile money service in the past 12 months. (United Nations Statistics Division [UNStats], 2022)
Advanced Driver Assistance System	Vehicle-based intelligent safety systems that help improve road safety through crash avoidance, crash severity mitigation and protection, and post-crash phases, among others. (European Commission [EC], 2018)
Advanced Manufacturing Center	The Department of Science and Technology's (DOST) top-of-the-line advanced manufacturing facility and state-of-the-art prototyping laboratory aimed at increasing the technological readiness, business sophistication, and innovative capacity of the country's manufacturing sector. (DOST-AMCen, n.d.)
Advanced Mechatronics, Robotics, and Industrial Automation Laboratory	Serves as a complementary facility that makes enabling technology-based processes available to more industries to further support manufacturing resurgence efforts of the country. The AMERIAL also envisions to become a premier training and development facility in industrial automation. Housed in the AMERIAL are tools and equipment for training, simulation, and research and development. (AMERIAL website).
Affordability	The potential amount of income that could be made available for housing investment after excluding basic necessities such as food, clothing, education, medical expenses, transportation, income tax and recurrent costs of housing. (House Joint Resolution No. 0003, n.d.)
Agri-food System	Covers the whole system from production, consumption, and disposal – from when it is planted, grown, harvested, processed, packaged, transported, distributed, traded, bought, prepared, eaten, and disposed of. It encompasses non-food products, such as forestry, animal rearing, use of feedstock, biomass to produce biofuels and fibers, and constitutes all activities, investments, choices made, and impacts on the livelihoods of all the people that play a part in producing agri-food products. (United Nations Food and Agriculture Organization [UN-FAO], n.d.)

Airsheds	Areas with similar climate, meteorology and topology which affect the interchange and diffusion of pollutants in the atmosphere, or areas which share common interest or face similar development programs, prospects or problems. (RA 8749, 1999)
Alternate wetting and drying method	A water-saving technology that farmers can apply to reduce their irrigation water consumption in rice fields without decreasing its yield. (International Rice Research Institute, n.d.)
Alternative dispute resolution	Any process or procedure used to resolve a dispute or controversy, other than by adjudication of a presiding judge of a court or an officer of a government agency, in which a neutral third party participates to assist in the resolution of issues, which includes arbitration, mediation, conciliation, early neutral evaluation, mini-trial, or any combination thereof. (RA 9285, 2004)
ANAHAW Philippine Sustainable Tourism Certification	Developed by the Center for Appropriate Technology (GrAT) together with the Department of Tourism (DOT), this aims to mainstream sustainable tourism and energy efficient operations in the tourism sector in the country. (DOT, n.d.)
Balanced Housing Development	A system whereby owners and/or developers of proposed subdivision and condominium projects shall be required to develop an area for socialized housing. (RA 11201, 2018)
Bank Runs	Occurs when a large number of depositors, fearing that their bank will be unable to repay their deposits in full and on time, simultaneously try to withdraw their funds immediately. This may create a problem because banks keep only a small fraction of deposits on hand in cash; they lend out the majority of deposits to borrowers or use the funds to purchase other interest-bearing assets such as government securities. (The Library of Economics and Liberty [Econlib], 2018)
Barrier-Free Tourism	A program of the DOT to encourage DOT-accredited tourism related establishments as well as tourism destinations to become more user friendly for persons with disabilities. It is used to categorized the travel needs of persons with disabilities so they can move freely and independently as mentioned in Articles 9 and 30 of the UN Convention on the Rights of Persons with Disabilities or UNCRPD stating a provision on accessibility which enables persons with disabilities to live independently independently and participate fully in all aspects of life. Likewise, persons with disabilities can expect to participate fully and enjoy the same tourism activities at par with persons without disabilities. (DOT, n.d.)
Base Erosion and Profit Shifting	Tax planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax.
Basic Education	The education intended to meet learning needs in order to set the foundation for subsequent learning. It covers six years of primary education, four years of Junior High School, and two years of Senior High School. It also includes alternative learning system for out-of-school youth and adult learners and includes education for those with special needs. (RA 10533, 2013)
Basic Education Facilities Fund	An annual budget of the Department of Education (DepEd) for its school building program, which covers the improvement and maintenance of school facilities. It is utilized for the provision of classroom and workshop buildings, replacement of old dilapidated buildings, provision of furniture, repair and rehabilitation of classrooms, including heritage buildings, as well as water and sanitation facilities, and electrification. (DepEd, 2017)
Basic Sanitation Service Level	Use of improved sanitation facilities which are not shared with another households. (APIS, 2020)
Batas Pambansa 220	It states the standards for economic and socialized housing projects. (Supreme Court [SC], 2019)
Bid-rigging	Occurs when competitors coordinate their actions to manipulate the outcome of a bidding process to their benefit. (Philippine Competition Commission [PCC], n.d.)
Big Data	A massive volume of both structured and unstructured data that is so large that it's difficult to process with traditional database and software techniques. The characteristics which broadly distinguish big data are sometimes called the '3 V's': more volume, more variety and higher rates of velocity. (UN, n.d.)
Biodiversity-friendly enterprises	Economic activities and practices of micro, small, and medium enterprises (MSME), that promote the sustainable use of biological resources, create wealth and value, and open opportunities for the equitable sharing of benefits among stakeholders. (Department of Environment and Natural Resources - Biodiversity Management Bureau [DENR-BMB], 2017)

Blue Carbon	Refers to organic carbon that is captured and stored by the oceans and coastal ecosystems, particularly by vegetated coastal ecosystems (e.g., seagrass meadows, tidal marshes, and mangrove forests). (Nellemann, 2009)
Blue Economy	A practical ocean-based economic model using green infrastructure and technologies, innovative financing mechanisms and proactive institutional arrangements for meeting the twin goals of protecting our oceans and coasts and enhancing its potential contribution to sustainable development, including improving human well-being, and reducing environmental risks and ecological scarcities. (Changwon Declaration, 2012)
Blue Ocean Economy	Economy that comprises a range of economic sectors and related policies that together determine whether the use of ocean resources is sustainable. (UN, n.d.)
Broadband	The International Telecommunications Union (ITU) defined broadband as an always on and high speed access service that provides connection to the Internet and other information services. The broadband is often defined in terms of a threshold minimum capacity however, the broadband service requirements change with the fast-pacing technological advancements hence, should cope up with the needs of the end-users. The National Telecommunications Commission (NTC), through its NTC Memorandum Circular (MC) No. 07-08-2015 defined entry-level broadband as a data connection with speed of at least 256 kbps. (ITU, n.d. and NTC, 2015)
Buffer Stock	Optimal level of rice inventory that shall be maintained at any given time to be used for emergency situations and to sustain the disaster relief programs of the government during natural or man-made calamities. (RA 11203, 2019)
Business Continuity Plan	A document that outlines how a business will continue operating during an unplanned disruption in service.
Business Innovation through Science and Technology	This aims to provide financial assistance to Filipino private companies for the acquisition of strategic and relevant technologies so they can undertake their research and development (R&D). The financial assistance, which may only be used to purchase high-tech equipment or to secure technology licensing and or patent rights, will be refunded to the DOST at zero percent interest (Science for Change Program website DOST, n.d.).
Capital Adequacy Ratio	A measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. An international standard which recommends minimum capital adequacy ratios has been developed to ensure banks can absorb a reasonable level of losses before becoming insolvent. (Reserve Bank of New Zealand, 2007)
Carbon Accounting	A process of measuring the amount of greenhouse gases emitted by countries, industries, and businesses, which can serve as basis in building an effective strategy to manage and reduce greenhouse gases (GHG) emissions. (World Resources Institute and World Business Council for Sustainable Development, 2001)
Carbon Capture and Storage	A process consisting of the separation of carbon dioxide from industrial and energy-related sources (e.g., power, cement and steel plants), transporting to a storage location (e.g., geological formations, oceans) for long-term isolation from the atmosphere. (Intergovernmental Panel on Climate Change, 2005)
Carbon Pricing Instruments	Policy instruments that capture the external costs of emitting carbon. CPIs create a price signal on emissions and can take on multiple forms: (a) emission trading system (ETS) or cap and trade, which is a tradable-permit system that depends on the balance between demand (the total emissions) and the supply (the emission units allocated and available); (b) carbon tax, which creates a price signal for fossil fuel usage to incentivize the move away from carbon-intensive production; (c) emission reduction funds, which are taxpayer-funded schemes wherein a government buys credits created by emission reduction projects. (UN Framework Convention on Climate Change, n.d.).
Case Completion Period in Judicial Dockets	The time it takes for courts to completely dispose of a case.
Cash Budgeting System	Budgeting system where the annual appropriations limit the incurrence of obligations and payments for goods delivered, services, and civil works delivered/rendered, inspected, and accepted within the current fiscal year or the transition period as approved by the President as recommended by the DBM.
Cash-lite Economy	One in which cash is no longer the most common means of payment. (Bankable Frontiers Associates, n.d.)

Certificate of Land Ownership Award	A documentary evidence of ownership of the land granted or awarded to the beneficiary by Department of Agrarian Reform (DAR), which contains the restrictions and conditions provided for in the "Comprehensive Agrarian Reform Law of 1988" and other applicable laws. (RA 6657, 1988)
Children	Refers to persons below 18 years of age or those over but are unable to fully take care of themselves or protect themselves from abuse, neglect, cruelty, exploitation or discrimination because of a physical or mental disability or condition. (RA 7610, 1992)
Circular Business Models	Ways of producing and consuming goods and services that reduce the extraction and use of natural resources and the generation of industrial and consumer wastes. They have the potential to drive the transition to a more resource-efficient and circular economy. (Organization for Economic Cooperation and Development [OECD], 2018)
Circular Economy	An economic model of creating value by extending product lifespan through improved design and servicing, and relocating ways from the end of the supply chain to the beginning. (RA 11898, 2022)
Clearance Rate	The total case output in a given year as compared to new cases filed in the same year.
Climate Change	A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer, whether due to natural variability or as a result of human activity. (RA 9729, 2009)
Climate Risk and Vulnerability Assessment	A comprehensive assessment framework for vulnerability assessment linked to climate risks. It identifies communities in the Philippines that are most vulnerable to climate change to ensure that strategic and effective investments can be made. [Department of Agriculture - Systems Wide Climate Change Office [DA-SWCCO], n.d.]
Climate-smart Irrigation Technologies	Conventional irrigation technology combined with meteorological stations and their sensors. The irrigation system includes complex interconnected structures and devices, which ensures an optimal water-salt regime in the upper soil layer for high crop yields. (UN Environment Programme [UNEP] Copenhagen Climate Centre, n.d.)
Collaborative Research and Development to Leverage Philippine Economy	Aims to enable technological advancement and innovation of local companies and to support the growth of the Philippine Innovation ecosystem. Through the program, the academe and/or research and development institutes (RDI) in partnership with a Filipino company, undertakes research and development to improve the company's products, processes, and services to become more competitive in their respective industries. Beneficiary-companies under this program must provide at least 20 percent counterpart funding and commit to adopt the technology that will be developed. This way, research outputs from the academe are directly translated commercially to the market (DOST, n.d.).
Communicable Disease	Also known as a contagious disease, refers to an illness resulting from an infection, or a disease, which can be transmitted from an infected host individual or group to a particular individual or group. It spreads through direct bodily contact with an infected person, their discharges, or an object or surface they have contaminated.
Community-Based Monitoring System	An organized technology-based system of collecting, processing, and validating necessary disaggregated data that may be used for planning, program implementation, and impact monitoring at the local level while empowering communities to participate in the process. (RA 11315, 2019)
Competitive Neutrality	One of the key elements of the National Competition Policy, which recognizes that government-owned and controlled corporations (GOCC) shall not enjoy net competitive advantages or be subjected to advantages over private sector businesses simply by virtue of public sector ownership, unless it can be clearly demonstrated that the greater public interest will be served and there is lack of commercial viability (NEDA-PCC JMC 1, 2020).
Compliance	This refers to the modes and manners provided by Section 18 of RA 7279, as amended by RA 10884, the implementing rules and regulations (IRR), and guidelines of the Housing and Land Use Regulatory Board (HLURB) by which the developer of the main project can fulfill and satisfy the balanced housing development. (HLURB Resolution 965, 2017)

Comprehensive Automotive Resurgence Strategy	The program is being implemented by the Department of Trade and Industry (DTI), in order to attract new investments, stimulate demand, and effectively implement industry regulations that will revitalize the Philippine automotive industry, and develop the country as a regional automotive manufacturing hub. The Comprehensive Automotive Resurgence Strategy (CARS) program is intended to augment and enhance the policy directions of existing motor vehicle development programs toward ensuring a resurgent automotive industry that supports innovation, technology transfer, environmental protection, and small and medium-sized enterprises (SME) development; enable the country's automotive industry to seize market opportunities opened by the Association of Southeast Asian Nations (ASEAN) Economic Community and deepen its participation in the regional supply chain; and boost the manufacturing capability of the overall industrial sector, spur growth of SMEs, and create more jobs in the country.
Comprehensive Land Use Plan	A document which serves as the primary and dominant bases for future use of land resources where the requirements for food production, human settlements, and industrial expansion are taken into consideration in its preparation (RA 7160, 1991).
Comprehensive Roadmap for the Electric Vehicle Industry	Refers to a national development plan for the electric vehicle (EV) industry with an annual work plan to accelerate the development, commercialization, and utilization of EVs in the country comprised of the following four (4) components: a) EVs and charging stations component; b) Manufacturing component; c) Research and development component; and d) Human resource development component.
Conflict Sensitivity and Peace Promotion	The ability to understand the conflict context, understand how interventions interact with the conflict context, and act upon that understanding to minimize negative impacts and maximize positive impacts of interventions (DILG-Office of the Presidential Adviser on the Peace Process [OPAPP] JMC No. 1, 2020)
Contingent Liabilities	Payment obligation whose occurrence, timing, and amount depend on uncertain future events or circumstances.
Coopetition	Cooperating with a competitor to achieve a common goal or get ahead. (Harvard Business Review, 2021)
Copyright	Protects literary and artistic works, such as books and other writings, musical works, films, painting, and other works and computer programs.
Creative Educational Plan	The plan to be established by the DepEd, Commission on Higher Education (CHED), and, Technical Education and Skills Development Authority (TESDA) toward human resource development, audience capacity-building, and consumer empowerment in the country's creative industries, in partnership with the private sector and the academe. (RA 11904, 2022)
Creative Industries	Defined as trades involving persons whether natural or juridical, that produce cultural, artistic, and innovative goods and services originating in human creativity, skill, and talent and having a potential to create wealth and livelihood through the generation and utilization of intellectual property. (RA 11904, 2022)
Creative Industries Development Plan	The plan to be created by the Philippine Creative Industries Development Council (PCIDC) to set forth the objectives, targets, strategies, and activities on the development and promotion of Philippine creative industries. (RA 11904, 2022)
Creative Industries Investments Priority Plan	The plan to be created by the PCIDC that contains a list of specific activities in the creative industries that may qualify for incentives. (RA 11904, 2022)
Credit Database	A database which contains financial statement information and default information of borrowers, collected from banks and credit guarantee associations on an anonymized basis.
Criminal Justice Information Exchange	The system that provides justice sector agencies the flexibility to develop their own ICT Systems according to their needs and contemporaneously provides the framework that will generate the "commonalities" for easy interchange of crime-related data.
Critical Information Infrastructure	Computer systems, and/or networks, whether physical or virtual, and/or the computer programs, computer data, and/or traffic data vital to the country that the incapacity or destruction of, or interference with such systems and assets would have a debilitating impact on security, national or economic security, national public health and safety, or any combination of those matters. (Department of Information and Communications Technology [DICT], 2022)

Culture of Peace	A set of values, attitudes, modes of behavior, and ways of life that reject violence and prevent conflicts by tackling their root causes to solve problems through dialogue and negotiation among individuals, groups, and nations. (UN Culture of Peace Declaration 1998 and UN Culture of Peace Program of Action, 1999)
Current health expenditure	Final consumption of health care goods and services by households, government, and non-profit institutions.
Cybercrime	A crime in which a computer is the object of the crime (hacking, phishing, spamming) or is used as a tool to commit an offense (child pornography, hate crimes). (DICT, 2022)
Cybersecurity	The collection of tools, policies, security concepts, security safeguards, guidelines, risk management approaches, actions, training, best practices, assurance, and technologies that can be used to protect the cyber environment and organization and user's assets. (DICT, 2022)
Decommissioning	A process that includes activities aimed at achieving a smooth transition for the former combatants to productive civilian life. (Official Gazette, 2013)
Determinants of Health	Factors that have a significant influence, whether positive or negative, on an individual or population's health, which can include biological, physical, psychological, social, cultural, political, and economic factors, among others.
Digital Banks	Offers financial products and services that are processed end-to-end through a digital platform and/or electronic channels with no physical branch/sub-branch or branch-lite unit offering financial products and services. (BSP, 2020)
Digital Divide	The gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access ICTs and to their use of the Internet for a wide variety of activities.
Digital Economy	Refers to a broad range of activities, which include the use of knowledge and information as factors in production, information networks as a platform for action and how the ICT sector spurs economic growth. (Philippine Statistics Authority [PSA], n.d.)
Digital Skills	Refers to a range of skills, encompassing a combination of behaviors, expertise, know-how, work habits, character traits, dispositions, and critical understanding on the use of digital devices, communication applications, and networks to access and manage information. (RA 11927, 2022)
Digital Workforce	Refers to any natural person who engages in remunerated activity through the use of digital skills and digital technology, regardless of work or employment arrangement, whether as a regular employee of a company or as a freelancer. (RA 11927, 2022)
Direct Housing Production	This refers to socialized housing assistance by the government through the National Housing Authority (NHA), Social Housing Finance Corporation (SHFC), Home Development Mutual Fund (Pag-IBIG), and government financial institutions (GFI).
Disaster	A serious disruption of the functioning of a community or a society involving widespread human, material, economic, or environmental losses and impacts which exceed the ability of the affected community or society to cope using its own resources. (RA 9729, 2009)
Disaster Preparedness	The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions. (RA 10121, 2010)
Disaster Response	The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. Disaster response is predominantly focused on immediate and short-term needs and is sometimes called "disaster relief". (RA 10121, 2010)
Disaster Risk	The potential disaster losses in lives, health status, livelihood, assets and services, which could occur to a particular community or a Society over some specified future time period. (RA 10121, 2010)
Disaster risk reduction	The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposures to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events. (RA 10121, 2010)
Disposition Rate	The percentage of cases disposed by the Court from the total number of existing cases.

Dry Port	An inland intermodal terminal directly connected to seaport(s) with high capacity transport mean(s), where customers can leave/pick up their standardised units as if directly to a seaport. (Roso et al., 2009)
Early Warning System	The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss. The expression “end-to-end warning system” is also used to emphasize that warning systems need to span all steps from hazard detection to community response. (RA 10121, 2010)
Ecolabeling	Marks placed on product packaging or in e-catalogs that can help consumers and institutional purchasers identify products that meet specific environmental performance criteria and are therefore deemed “environmentally preferable”. (US Environmental Protection Agency, 2022)
Economic Rent	Income derived from ownership or control over a limited asset or resource.
Ecosystem Services	The contributions of ecosystems to the benefits that are used in economic and other human activity. (UN System of Environmental Economic Accounting, n.d.)
Ecosystem-based Approach	Also known as an ecosystem approach, the integrated management of land, water, and living resources that promotes conservation and sustainable use in an equitable way. (UN Convention on Biological Diversity, n.d.)
Ecotourism	A form of sustainable tourism within a natural and cultural heritage area where community participation, protection and management of natural resources, culture and indigenous knowledge and practices, environmental education and ethics as well as economics. (RA 10866, 2016)
e-Dalaw Facility	An online video-calling system that aims to give the inmates who are visitorless, especially those who are indigent, sick and/or aged the opportunity to communicate with and see family members.
Education for Sustainable Development	Education for sustainable development empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning and is an integral part of quality education. (UNESCO Institute for Statistics [UIS], n.d.)
E-Government	Use of information and communication technologies in government to provide public services, to improve managerial effectiveness and to promote democratic values; as well as a regulatory framework that facilitates information intensive initiatives and fosters the knowledge society.
Electric vehicle	A vehicle with at least one electric drive for vehicle propulsion. This includes battery electric vehicle, hybrid-electric vehicle, light electric vehicle, and a plug-in hybrid electric vehicle. (RA 11697, 2022).
Emerging and Re-emerging Infectious Diseases	Emerging infectious diseases (EID) are those that have recently appeared within a population or those whose incidence or geographic range is rapidly increasing or threatens to increase shortly. Re-emerging infectious diseases (RID) are those which were previously controlled, but have again risen to be a significant health threat.
Employed	Consists of persons in the labor force who are reported either as at work or with a job or business although not at work. Persons at work are those who did some work, even for an hour during the reference period (LFS Technical Notes, PSA, n.d.)
Employment Rate	The proportion of employed persons to the total labor force. (LFS Technical Notes, PSA, n.d.)
Enabling Environment	Covers the indicators related to the institutional arrangements, facilities, budget, policies and practices to support a positive learning environment and to support school engagement with the community. The country meets the aspects if it meets four of the following criteria: (a) has institutional arrangements supporting breadth of skills, (b) has budget supporting breadth of skills, (c) has policies promoting positive school climate, and (d) has policies for schools to engage with communities. (UNESCO, n.d.)
Enterprise-based Training	Programs being implemented within companies/firms. These programs can be any of the following: Apprenticeship program, Learnership Program, and Dual Training System. (TESDA, n.d.)

Environmental, Social, and Governance Investment/Sustainable Finance	Refers to the process of taking environmental, social, and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects.
Event-based Surveillance	Organized and rapid capture of information about events that are a potential risk to public health; can be rumours and other ad-hoc reports transmitted through formal channels (i.e. established routine reporting systems) and informal channels (i.e., media, health workers and non-governmental organizations reports), including events related to the occurrence of disease in humans, and events related to potential exposure for humans.
Expenditure on Education	Refers to expenditure on core educational goods and services, such as teaching staff, school buildings, or school books and teaching materials, and peripheral educational goods and services such as ancillary services, general administration and other activities. Expenditure on education can come from public source (i.e., all government ministries and agencies financing or supporting education programmes in the country), international source, and private source (e.g., households). (UIS, n.d.)
Extended Producer Responsibility	Refers to the environmental policy approach and practice that requires producers to be environmentally responsible throughout the life cycle of a product, especially its post consumer or end-of-life stage. (RA 11898, 2022)
Farm and Fisheries Clustering and Consolidation Program	A program which seeks to advance the interest and condition of Filipino small farmers and fishers by encouraging them to adopt the strategy of clustering and consolidation of their production, processing, and marketing activities as community business enterprise, including the pooling of assets, labor and other resources. (DA Administrative Order [AO] No. 27, 2020)
Fecal Coliform	Group of organisms universally present in large numbers in the faeces of man and other warm-blooded animals. Used as a primary bacterial indicator for excremental pollution. (World Health Organization [WHO], 1985)
Financial Literacy	Refers to the level of knowledge about financial concepts and principles. It contributes to consumers' capability in making sound financial plans and decisions to be financially healthy. (BSP, 2021)
Financial Risk Protection	The ability to consume or access needed quality healthcare services without experiencing undue financial hardship.
Fishery Management Areas	A bay, gulf, lake or any other fishery area which may be delineated for fishery resource management purposes. (BFAR AO 263, 2019)
Food Safety	The assurance that food will not cause harm to the consumer when it is prepared or eaten according to its intended use. (RA 10611, 2013)
Food Security	A situation when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (World Food Summit, 1996)
Fortification	The addition of nutrients to processed foods or food products at levels above the natural state. As an approach to control micronutrient deficiency, food fortification is the addition of a micronutrient, deficient in the diet, to a food, which is widely consumed by specific at-risk groups. (RA 8976, 2000)
Fully Immunized Children	Infants who received one dose of Bacillus (or Bacille) Calmette-Guerin, three doses each of oral polio vaccine (OPV), diphtheria, pertussis (whooping cough), and tetanus (DPT), and Hepatitis B vaccines, and one dose of measles vaccine before reaching one year of age.
Gender	Refers to a set of socially ascribed characteristics, norms, roles, attitudes, values, and expectations identifying the social behavior of men and women, and the relations between them. (RA 11313, 2019)
Gender Mainstreaming	The strategy for making women's, as well as men's, concerns and experiences the integral dimension of the design, implementation, and monitoring and evaluation of policies and programs in all political, economic, and societal spheres so that women and men benefit equally and inequality is not perpetuated. (Philippine Commission on Women [PCW], 2017)
Generalized Scheme of Preferences Plus	It is a special incentive arrangement for sustainable development and good governance in the form of zero duties. It is a unilateral trade arrangement, which offers zero tariffs on 6,274 products or 66 percent of all European Union (EU) tariff lines.

Genetic Resources	Refers to all living organisms (i.e., plants, animals, and microbes) carrying genetic material that could be potentially useful to humans. These resources can be taken from the wild, domesticated, or cultivated. They are sourced from environments in which they occur naturally (in situ), or from human-made collections such as botanical gardens, genebanks, seed banks and microbial culture collections (ex situ). (UN Convention on Biological Diversity, n.d.)
Geographic Information System	A system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data. (UN, n.d.)
Gig Economy	Covers digital platforms which includes both web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd ("crowdwork"), and location-based applications (app) which allocate work to individuals in a specific geographical area, typically to perform local, service-oriented tasks such as driving, running errands or cleaning houses. Characterized by independent contracting, contingent work, with variable hours and payment on a piece-work basis. (ILO, n.d. and Woodcock and Graham, 2020)
Gig Workers	Those engaged in work done in digital labor platforms which includes both web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd ("crowdwork"), and through location-based apps ("work on demand via apps") which allocate work to individuals in a specific geographic area.
Global Citizenship Education	This concept measures the knowledge, skills, attitudes and values that underpin the concept. It is measured through two sub-categories: global-local thinking (positives attitudes toward their country of residence), and multicultural(ism)/intercultural(ism) (positives attitudes toward ethnic/racial minorities). (UIS, n.d.)
Global Innovation Index	The annual ranking of countries by their capacity for, and success in, innovation, published by the World Intellectual Property Organization. It was started in 2007 by Institut Européen d'Administration des Affaires (INSEAD) and World Business. serves as the global benchmark that measures innovation along key seven pillars namely, (a) institutions, (b) human capital and research, (c) infrastructure, (d) market sophistication, (e) business sophistication, (f) knowledge and technology outputs, and (g) creative outputs. It ranks the innovation performance of around 132 economies in the world by highlighting innovation strengths and weaknesses.
Good Conduct Time Allowance Law	An act that allows for a reduction of sentences of persons deprived of liberty, depending on how well they abide by rules and regulations inside any penal institution, rehabilitation, or detention center or any other local jail.
Government Financial Institutions	These refer to financial institutions or corporations in which the government directly or indirectly owns majority of the capital stock and. which are either: (a) registered with or directly supervised by the BSP; or (b) collecting or transacting funds or contributions from the public and places them in financial instruments or assets such as deposits, loans, bonds and equity including, but not limited to, the Government Service Insurance System (GSIS) and the Social Security System (SSS). (RA 10149, 2010)
Government Quality Management Program	Aims to effect advancement in public sector performance by ensuring the consistency of products and services that government agencies deliver through the application of processes that can be achieved through an effective Quality Management System. (DAP, n.d.)
Green Economy	An economy that is low-carbon and resource-efficient, resulting in the generation of green jobs and in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. (RA 10771, 2016)
Green Energy Auction Program	A program to support and facilitate immediate and timely investments in new or additional renewable energy capacities to ensure provision of adequate supply and competitive rates of electricity in the country. Its aims to ensure transparent and competitive selection of renewable energy facilities to achieve reasonable rates and encourage, as far as practicable, the renewable energy entrants in the system.
Green Energy Option Program	A renewable energy (RE) policy mechanism which provides the End-User the option to choose RE resources as their source of energy.
Green Jobs	Jobs that help to protect ecosystems and biodiversity, reduce energy, materials and water consumption through high-efficiency strategies, decarbonize the economy, and minimize or altogether avoid generation of all forms of waste and pollution. Green jobs are decent jobs that are productive, respect the rights of workers, deliver a fair income, provide security in the workplace and social protection for families, and promote social dialogue. (RA 10771, 2016).

Green Public Procurement	A process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services, and works with the same primary function that would otherwise be procured. (Government Procurement Policy Board [GPPB], 2017).
Green Spaces	Land that is partly or completely covered with grass, trees, shrubs, or other vegetation. Green space includes parks, community gardens, and anthropogenic green spaces such as roof garden, roadside planting, private gardens, and urban parks. (DENR-BMB Technical Bulletin DENR-Biodiversity Management Bureau [BMB] Technical Bulletin, 2018)
Green, Social, and Sustainability Bonds	Bonds issued to fund projects that have positive environmental impacts (e.g., climate change adaptation), social impacts (e.g., provision of basic infrastructure), or a combination of both.
Green-grey Infrastructure	An example of Nature-based Solution (NbS) that combines conservation and restoration of natural 'green' ecosystems with traditional 'gray' engineering techniques (i.e., levels or breakwaters) to shield vulnerable communities from the impacts of climate change. (DENR-BMB, 2019)
Greenhouse Gases	Constituents of the atmosphere that contribute to the greenhouse effect including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. (RA 9729, 2009)
Grid Operation and Maintenance Program	Contains the proposed three-year planned/maintenance outages of grid and system operations-monitored power generation facilities (in consultation with the generating companies), information on the schedule of maintenance per unit/power plant as well as the overall weekly reserve profile per year per grid. It also contains the three-year maintenance program of the transmission facilities of National Grid Corporation (NGCP) aligned to the planned outage of the power generation facilities.
Gross Expenditure on R&D	The sum of financial resources used for the execution of R&D works in the country by the public sector and by the business enterprise sector.
Harmonized Client Satisfaction Measurement	An after-service availment survey that assesses the overall satisfaction and perception of clients on the government service they availed. (Anti-Red Tape Authority [ARTA], 2022)
Harmonized Gender and Development Guidelines	A standard tool in gender mainstreaming to assess the level of gender-responsiveness of the design, implementation, management, monitoring and evaluation of programs and projects. (PCW, 2022)
Harmonized National R&D Agenda	Serves as a guide for the prioritization of research programs and projects that will be pursued by the country to address the societal needs. It directs and ensures anew that the results of science, technology and innovation endeavors are geared toward and are utilized in areas of maximum economic and social benefit for the people. This was formulated by the DOST, in consultation with government and private research and development institutions, the academe, industry and other concerned agencies.
Hazard	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption, or environmental damage.
Hazardous Waste	Waste which may (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated stored, transported or disposed of, or otherwise managed. (RA 9003)
Health Care Financing	Consists of policies and arrangements of a country has for (a) revenue sources and contribution mechanisms; (b) pooling of funds; purchasing of services; (c) policies on benefit design, rationing, and the basis for entitlement; (d) and governance of the above functions and policies.
Health Care Waste	Waste generated as a result of diagnosis, treatment, or immunization of human beings or animals; research pertaining to the aforesaid activities; production or testing of biologicals; and waste originating from minor or scattered sources. (DENR-DOH JAO 2, 2005)
Health Facilities Enhancement Program	A priority program of the DOH, attempting to address perennial shortages in health facilities by augmenting capital investments in the national and LGU health facilities. (DOH Philippine Health Facility Development Plan, n.d.)
Health Promotion	The process of enabling people to increase control over, and to improve their health by addressing its risk factors, determinants, and root causes of ill health.

Health Technology Assessment	Systematic evaluation of properties, effects, or impact of health-related technologies, devices, medicines, vaccines, procedures and all other health-related systems developed to solve a health problem and improve quality of lives and health outcomes, utilizing a multidisciplinary process to evaluate the social, economic, organizational, and ethical issues of a health intervention or health technology. (RA 11223, 2019)
Healthcare Waste	This includes waste generated as a result of the following: (a) diagnosis, treatment, or immunization of human beings or animals; (b) research pertaining to the aforesaid activities; (c) production or testing of biologicals; and (d) waste originating from minor or scattered sources. (DENR-DOH 2, 2005)
Holiday Economics	Policy allows certain movable holidays to be observed on a Monday or Friday to allow long weekends during the year. (RA 9492, 2007)
Housing	This refers to a multi-dimensional concept relating to the process of residing and the objects of dwelling whose main attributes are location relative to access to livelihood, tenure arrangements, cost and physical structure, as well as their environment. Housing is, likewise, a physical structure as well as a social structure, functioning at different spatial scales from homes, neighborhoods, communities, municipalities, cities, provinces, and regions. It is also a sector of the economy, an important category of land use in both urban and rural areas, especially in cities, and is an important factor in the overall dynamics of the urban system. (RA 11201, 2018)
Housing Escrow Fund	The amount of participation required for socialized housing compliance deposited by the private sector in an escrow trust account. (HLURB Resolution 965, 2017)
Inclusive Learning Resource Center of Learners with Disabilities	Inclusive Learning Resource Center of Learners with Disabilities (ILRC) refers to a physical or virtual center that provides support and related services to teaching and learning, using appropriate, accessible, disability, linguistically-culturally-, and gender-sensitive instructional learning materials, tools, devices, gadgets, and equipment to facilitate and enhance learning, and assessment tools and instruments, to evaluate developmental domains and specific areas of concern to determine appropriate services and placement decisions, with support and related services from medical, health, and allied professionals for care, rehabilitation, and development of learners with disabilities. (RA 11650, 2022)
Index Crimes	Crimes which are serious in nature and which occur with sufficient frequency and regularity such that they can serve index to the crime situation, the policy considers only the crimes of murder, homicide, physical injuries (including frustrated murder and homicide), carnapping, cattle rustling, robbery, theft, and rape as index crimes. (PNP Crime Information Reporting and Analysis System, n.d.)
Individual-based Health Services	These are services which can be accessed within a health facility or remotely that can be definitively traced back to one recipient that has limited effect to population level and does not alter the underlying cause of illness such as ambulatory and inpatient care, medicines, laboratory tests and procedures, among others.
Industrial Design	Consists of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines, or color.
Industry 4.0 Pilot Factory	Houses cutting-edge manufacturing technologies like advanced robotics, intelligence-of-things, drones, virtual and augmented reality for factory simulations, among others. The Pilot Factory will serve as a demonstration and training hub for learning and pilot Industry 4.0 technologies and solutions to accelerate the digital transformation of Philippine enterprises (DTI website, n.d.).
Inexhaustible Resources	Inexhaustible resources are those that have an infinite supply and are impossible to deplete, even when constantly exploited by people. Solar, wind, geothermal, water, soil, air, ocean waves, and tides are examples of such resources.
Infant mortality rate	The probability of dying between birth and age one, expressed as the number of infant deaths or deaths occurring before reaching 12 months of life in a given period per 1,000 live births.
Infectious Waste	A type of biomedical or health care waste suspected to contain pathogens (bacteria, viruses, parasites or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts (DENR AO 36, 2004).
Inflation Rate	The annual rate of change or the year-on-year change in the Consumer Price Index. (National Statistical Coordination Board [NSCB] Resolution No. 11, 2003)

Informal Settler Families	This refer to households living in a lot, whether private or public, without the consent of the property owner; or those without legal claim over the property they are occupying; or those living in danger areas such as esteros, railroad tracks, garbage dumps, riverbanks, shorelines, and waterways. (RA 11201, 2018)
Innovation	The creation of new ideas that results in the development of new or improved products, processes, or services which are then spread or transferred across markets.
InsurTech	The innovative use of technology in insurance and is a subset of financial technology (FinTech). InsurTech innovation is occurring across the entire insurance value chain—from distribution and marketing, product design, underwriting, claims management and balance sheet management and across all lines of insurance—property and casualty, life and health. (National Association of Insurance Commissioners [NAIC], 2022)
Integrated Water Resources Management	A process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment.
Integrity Management Program	An anti-corruption program of the government, which aims to establish a systematic approach in building, improving, reinforcing and sustaining a culture of integrity in public sector institutions that is rooted in acceptable values, principles and standards of good governance. (Office of the President and Office of the Ombudsman [OMB], n.d.)
Integrity Transparency and Accountability in Public Service	A seminar that aims to provide a venue where public service values are internalized and a deeper understanding is enhanced on the role of public servants and the accountability attached to the positions in the government. (OMB, n.d.)
Intellectual Property	Creations of the mind, such as scientific and technological inventions (patent/utility model); literary and artistic works (copyright); designs (industrial design); and symbols, names and images used in commerce (trademark).
Intergovernmental Relations Bodies	The mechanisms for coordination and resolution of issues on intergovernmental relations through regular consultation and continuing negotiation in a non-adversarial manner between the national and Bangsamoro governments. (RA 11054, 2018)
Intermediate Services	Intermediate services are services which are used as intermediate inputs in the production of other goods and services that are internationally traded and contribute significantly to global interdependence of economies. (Behuria and Khullar, 1994)
Intermodal Transport	Intermodal, or multimodal, services include more than one mode of transportation and often require connections, choices, and coordination between various modes.
International Large-scale Assessments	Assess students' achievement in specific disciplines, examples of which are the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), and Southeast Asia - Primary Learning Metrics (SEA-PLM). ILSAs can be used by policymakers and other educational stakeholders for evidence-based decision making for educational reform. (UNESCO, n.d.)
Justice Sector Coordinating Council	An inter-agency body composed of the Judiciary, the Department of Justice (DOJ), the Department of the Interior and Local Government (DILG), and their relevant attached agencies, which serves as a joint forum for dialogue on issues of common interest and mechanism for effective coordination and sharing of information for planning and implementation of joint initiatives.
Justice Zone	An area or locality where a minimum number of inter-agency coordinative reforms are present, rendering that area or locality compliant based on the selection and rating criteria to be established by the Justice Sector Coordinating Council (JSCC).
Katarungang Pambarangay	A system of dispute resolution instituted in all barangays in the Philippines that seeks to promote, among others, the speedy administration of justice, by providing all avenues to an amicable settlement of community-level disputes.
Key Performance Indicators	quantifiable indicators of progress toward an intended result that focus on strategic and operational improvement; create an analytical basis for decision-making, and help focus on what matters most.
Key Shelter Agencies	This refers to the attached agencies of the DHSUD namely, the NHA, National Home Mortgage Finance Corporation (NHMFC), Pag-IBIG, and the SHFC. (RA 11201, 2019)
Knowledge Creation	The continuous combination, transfer, and conversion of different knowledge. It is a formation of new ideas which occurs through interactions, and includes tacit and explicit forms of knowledge. It usually takes place through R&D activities, learning by doing, team work, strategic alliances, and benchmarking.

Knowledge- and Technology-Intensive Industries	Industries classified by the OECD as high and medium-high R&D intensive industries. Following the latest nomenclature of the OECD (Indicators 2020) across economies, high R&D-intensive industries include aircraft, computer, electronics and optical products, pharmaceutical, publishing including software while medium R&D-intensive industries include chemicals (excluding pharmaceuticals), pharmaceuticals, electric equipment, other machinery and equipment, and transportation equipment.
Labor Force	Refers to the population 15 years old and over who contribute to the production of goods and services in the country. It comprises the employed and unemployed. (PSA Labor Force Survey [LFS], n.d.)
Labor Force Participation Rate	The proportion of total labor force to the total household population 15 years and over (PSA LFS, n.d.)
Labor Market Information	Provides timely relevant and accurate signals on the current labor market such as in-demand jobs and skills shortages by developing client-specific labor market information (LMI), Education and Communication materials. The material is part of the commitment of the Department of Labor and Employment (DOLE) to support the Career Guidance Advocacy Program – a convergence program under the Human Development and Poverty reduction cluster, which seeks to promote career guidance as tool in assisting jobseekers, particularly students in making informed career choices. (DOLE, n.d.)
Labor Market Interventions	Aims to give gainful employment to citizens through employment facilitation and placement schemes, active labour market programmes, emergency and guaranteed employment and unemployment insurance. These programs should also respond to specific needs of sectors. For example, government should adopt measures aimed at enhancing employment and entrepreneurial opportunities and providing security of tenure for the workers in the informal economy. (DSWD Revised Social Protection Operational Framework [SPOF], 2019)
Legatum Prosperity Index	A composite index that assesses countries on the promotion of their residents' flourishing, reflecting both economic and social wellbeing in 12 pillars of prosperity split into 67 discrete policy focussed elements, and grouped into three domains essential to prosperity: Inclusive Societies, Open Economies, and Empowered People. (Legatum Institute, 2021)
Life Expectancy at Birth	The number of years a newborn child can be expected to live under a given mortality condition of an area in a given year.
Limited Sanitation Service Level	Use of improved sanitation facilities shared with two or more households. (PSA Annual Poverty Indicators Survey [APIS], 2020)
Listahanan	The National Household Targeting System for Poverty Reduction is an information management system that identifies who and where the poor are nationwide. (DSWD, n.d.)
Local Culture and Arts Council	This council to be established by all LGUs in coordination with the PCIDC and the DILG shall exercise functions and powers in addition to those provided under existing statutes, memoranda, and other issuances. Its functions are outlined in Section 22 of RA 11904.
Local Peace Engagements	This aims to strengthen capacities of national and local governance actors to effectively address socioeconomic divides and reduce armed violence in communities to be able to facilitate the delivery of government service, with a long-term view of settling the root causes of conflict in their respective areas. (National Task Force to End Local Communist Armed Conflict [NTF-ELCAC], n.d.)
Low-Skills Services	The International Standard Classification of Occupations (ISCO) classifies low-skilled work as mainly consisting of “simple and routine tasks which require the use of hand-held tools and often some physical effort”. It includes: office cleaners; freight holders; garden labourers, kitchen assistants (ISCO-08). By extension, a low-skilled worker could be defined as a person who undertakes low-skilled work.
LPI-Government Effectiveness	A combination of the quality of public service provision, the quality of the bureaucracy, and the competence of officials. (Legatum Institute, 2021)
Lupong Tagapamayapa	A peace-making body organized in every barangay to administer Katarungang Pambarangay. It is composed of the punong barangay as chairman, with a minimum of ten and a maximum of 20 members.
Macro-Prudential Measures	Policies aimed to manage systemic risks across different segments of the financial market and those that can create systemic risks over periods of time. (BSP, 2020)

Malikhaing Pinoy Creative Market Acceleration Program	One of the four initiatives under the Malikhaing Pinoy Program of the DTI, which will, among others, include three additional initiatives (i.e., creative venture fund, creative learning academy, creative innovation centers).
Malnutrition	Deficiencies, excesses or imbalances in a person's intake of protein, energy (carbohydrates and fats) and/or nutrients covering both undernutrition which includes suboptimal breastfeeding, stunting, wasting or thinness, underweight and micronutrient deficiencies or insufficiencies, as well as overnutrition, which includes overweight and obesity. (RA 11148, 2018)
Marine Litter	Refers to any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. (UNEP, 2009)
Maritime Industry Development Plan	Adopted pursuant to PD 474, s. 1974 or the Maritime Industry Decree of 1974 to steer the country's maritime industry toward global competitiveness and sustainable growth through the prioritization of international commitments in the maritime transportation sector and the adoption of integrated approach to development by pooling together the expertise and resources of concerned government agencies, the private sector, and the civil society. (EO 159, 2021)
Maritime Industry Development Plan 2019-2028	The 10-year blueprint plan that spells out the needs, goals, and challenges of the whole maritime industry, the government and the private sector will have to jointly shell out the amount through 2028. EO 159, s. 2021 was issued to adopt an integrated approach in the ratification and accession to International Maritime Organization Conventions and Instruments, and Reconstitute the Inter-Agency Coordinating Committee for the Purpose.
Maritime Route Rationalization and Information System	Aims to develop and design a modular software and other related tools for an effective route capacity measurement system, as part of the modernization plan of Maritime Industry Authority (MARINA) for the Philippine maritime industry through the development of the Navigational Traffic Information System (NAVIS) software and incorporation of the necessary models and concepts related to maritime transportation. (DOST, n.d.)
Materials Recovery Facility	Refers to a cluster of facilities that includes solid waste transfer station or sorting station, drop-off center, a composting facility, and a recycling facility. (RA 9003, 2000)
Maternal Health	Health of women during pregnancy, childbirth, and the postnatal period.
Maternal Mortality Ratio	The ratio between the number of women who died (for reasons of pregnancy, childbirth and puerperium) to the number of reported livebirths in a given year, expressed as the number of maternal deaths per 100,000 live births.
Merger	Refers to the joining of two or more entities into an existing entity or to form a new entity. (RA 10667, 2015)
Micro, Small, and Medium Enterprises	This refers to any business activity or enterprise engaged in industry, agribusiness and/or services that has: (a) an asset size (less land) of up to PHP100 million; and (b) an employment size with less than 200 employees. Based on these categories, it is classified as micro, small, or medium regardless of the type of business ownership (i.e., single proprietorship, cooperative, partnership, or corporation).
Micro-credentials	Micro-credentials are typically focused on a specific set of learning outcomes in a narrow field of learning and achieved over a shorter period of time. Micro-credentials are offered by commercial entities, private providers and professional bodies, traditional education and training providers, community organizations and other types of organizations. (UNESCO, n.d.)
Microfinance	This refers to a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to the poor and low income households, generally for their microenterprises and small businesses, to enable them to raise their income levels and improve their living standards. (BSP, 2013)
Microinsurance	Operates the same as conventional insurance except that it is targeted at low-income households, specifically the working poor who have few or no financial reserves and incomes that fluctuate considerably. (NAIC, 2022)
Micro-Prudential Measures	Policies which examine the responses of an individual bank to exogenous risks and do not incorporate endogenous risk and the interconnectedness with the rest of the system. (International Monetary Fund [IMF], 2013)
Mitigation	In the context of climate change, mitigation refers to human intervention to address anthropogenic emissions by sources and removals by sinks of all GHG, including ozone-depleting substances and their substitutes. (RA 9729, 2009)

Mitigation Potential	The scale of GHG reductions that could be made, relative to emission baselines, for a given level of carbon price (expressed in cost per unit of carbon dioxide equivalent emissions avoided or reduced). (RA 9729, 2009)
Moderate Food Insecurity	A situation when people experience uncertainties about their ability to obtain food, and have been forced to compromise on the quality and/or quantity of the food they consume. (DOST-FNRI 2018-2019 Expanded National Nutrition Survey [ENNS], 2018)
Modern Family Planning	Includes: oral contraceptive pills; female and male sterilization; intrauterine device; injectables; implants; condom; and, natural FP methods such as cervical mucus, basal body temperature method, symptothermal method, standard days method and lactational amenorrhea method.
Modernizing Government Regulations	A regulatory reform initiative that aims to make broad-based improvements in national productivity and competitiveness by examining regulations and identifying possible regulatory governance reforms. (DAP, .n.d.)
Morbidity	The frequency of disease and illness, injuries, and disabilities in a population.
Mortality Rate	The age-standardized mortality rate is a weighted average of the age-specific mortality rates per 100,000 persons, where the weights are the proportions of persons in the corresponding age groups of the WHO standard population.
Movable Asset Financing	The pledging of movable or intangible assets, such as vehicles, livestock, manufacturing equipment, inventory, or receivables, as collateral for loans. (US Agency for International Development [USAID], 2021)
Movable Collateral Registry System	A record of legal claims to personal property used as collateral for a loan. Transparent collateral registries allow lenders to check if collateral being offered as security for a loan has already been pledged to another lender. (Marketlink, 2022)
Multidimensional Tourism	An approach to diversification of product portfolio under the seven-point agenda of the DOT. (DOT, n.d.)
Mutual Recognition Arrangements	Framework arrangements established in support of liberalising and facilitating trade in services. Mutual Recognition Arrangements (MRA) aim to facilitate mobility of professionals/skilled labor in ASEAN. Through exchange of information, MRAs also work toward the adoption of best practices on standards and qualifications. (ASEAN, n.d.)
National Climate Risk Management Framework	Framework for harmonizing and integrating efforts of various sectors and stakeholders on climate risk management, and strengthening the country's early action system in view of the increasing losses and damages from recurring extreme weather events. (Climate Change Commission [CCC] Resolution 1, 2019)
National Competition Policy	The policy that complements the Philippine Competition Act and steers regulations and administrative procedures of government agencies to level the economic playing field. It has three key elements, as follows: (a) pro-competitive policies and government interventions; (b) competitive neutrality; and (c) enforcement of competition-related laws and issuances.
National Effort for the Harmonization of Efficient Measures of Inter-related Agencies	A sectoral-based streamlining effort which targets to reduce the time, cost, requirements, and procedures in sectors of economic and social significance by 52 percent within 52 weeks. (ARTA, n.d.)
National Energy Efficiency and Conservation Program	A declared policy of the government to promote the judicious conservation and efficient utilization of energy resources through adoption of the cost-effective options toward the efficient use of energy to minimize environmental impact.
National Farmers and Fisherfolk Registry System	An online application being used to update the Registry System for Basic Sectors in Agriculture (RSBSA). It aims to be a reliable source of data and information to be used as basis/ reference in the implementation of various agriculture, forestry, fisheries (AFF) programs as well as the formulation and evaluation of policies.
National Government Portal	A one-stop shop of government data, information, and services. The single website provides citizens, businesses, and government users access to reliable and efficient online services and information.
National Irrigation System	Large and medium schemes of irrigation facilities which are operated and maintained by the National Irrigation Administration (NIA) for the continuous delivery of water to farmlands. Operation and maintenance of National Irrigation System (NIS) are done with support from irrigators associations.

National Justice Information System	An integrated information system that is intended to address and remedy the current information gaps in the Philippine criminal justice system by enabling effective sharing of data between the police, judiciary, probation services, custodial authorities, and criminal information registries, at key decision points in the criminal justice system process.
National Quality Infrastructure	Refers to policy, legal, regulatory, and administrative frameworks, and the institutional arrangements, public and private, to implement standardization, accreditation, and totality of the testing, certification, and measurement necessary to provide acceptable evidence that products and services meet the defined government and market standards. (Senate Bill [SB] No. 793, 2022)
National Resettlement Policy Framework	It serves as an overarching framework that outlines common procedures and guidelines for the implementation of resettlement and socialized housing plans and projects for informal settler families (ISF) and other displaced persons in need of resettlement due to natural or human-induced calamities, emergencies, or crises.
National Single Window	A system that enables a single submission of data and information that is synchronously processed, resulting in a single point of decision for the release of cargoes by Customs, based on decisions made by other Departments and Agencies of government and communicated in a timely manner to Customs.
National Tax Allotment	Automatically appropriated and released share of LGUs, aggregately corresponding to 40 percent of all national taxes based on the collection of the third fiscal year preceding the current fiscal year.
National Transport Policy	Formulated to help achieve the Transport Vision of a “safe, secure, reliable, efficient, integrated, intermodal, affordable, cost-effective, environmentally sustainable, and people-oriented national transport system that ensures improved quality of life of the people”. As embodied in NEDA Board Resolution No. 5 s. 2017, the National Transport Policy (NTP) was adopted by the NEDA Board on June 27, 2017. It was published in general circulation on February 14, 2018. Pursuant to Section 11 of the NEDA Board Resolution No. 5 s. 2017, the the NEDA Board Committee on Infrastructure (INFRACOM), through the Inter-Agency Technical Committee on Transport Planning (IATCTP), was tasked to formulate and issue the accompanying IRR to effectively carry out the provisions of the NTP. The IRR contains the guidelines and methodologies in the operationalization of the strategies and intended policy reforms in the transport sector toward the realization of the Transport Vision. The INFRACOM, during its December 14, 2018 meeting, approved and adopted the NTP IRR (INFRACOM Resolution No. 01-2018, “Approving the Implementing Rules and Regulations of the National Transport Policy”). The IRR was published in general circulation on 30 December 2019. (NEDA, 2021)
National Transportation Master Plan	Plan that serves as the roadmap that will guide the rational development of an intermodal/multimodal transport network in the country, which will connect major and emerging economic growth centers and transport hubs using actual post-pandemic data on travel demand and supply. The Plan will be the basis for the respective development planning, investment programming, and implementation initiatives of national government agencies (NGA), LGUs, and special interest groups. (NEDA, 2022)
Nationally Determined Contribution	A climate action plan for countries to achieve the objectives of the Paris Agreement, which is updated every five years starting in 2020. It contains the targets, policies and measures to reduce GHG emissions and adapt to climate change impacts as well as information on finance, technologies and capacity-building needs (UN Framework Convention on Climate Change, n.d.).
Natural Capital Accounting	An umbrella term covering efforts to use of an accounting framework to provide a systematic way to measure and report on stocks and flows of natural capital. National Capital Accounting (NCA) covers accounting for individual environmental assets or resources, both biotic and abiotic (i.e., water, minerals, energy, timber, fish), as well as accounting for ecosystem assets (e.g., forests; wetlands), biodiversity and ecosystem services (UN Statistics Division, n.d.)
Negative Externalities	Occurs when the production or consumption of goods and services imposes costs on others which are not reflected in the prices charged for the goods and services being provided.
Negentropy	An abbreviation of “negative entropy,” which is also called syntropy. It is used to explain the presence of “order” within living beings and their tendency to oppose the chaos and disorganization that governs physical systems.
Neonatal Mortality Rate	The number of deaths within the first month of life per 1,000 live births.

Niche Centers in the Regions for R&D	Aims to address the disparity in access to R&D funding among the regions. Through the program, qualified higher education institutions (HEI) in the regions are provided with grants to undertake quality research directed at promoting regional development with their existing capabilities and resources. A proposed Niche Centers in the Regions (NICER) should be unique, a collaborative project between HEIs, and must be duly endorsed by the Regional Development Council (RDC) to ensure its socioeconomic impact in the region (DOST, n.d.).
Night-Rating	A qualification that allows a pilot to fly an aircraft during the time of 'night' as qualified by the International Civil Aviation Organization (ICAO), being the time from 30 minutes after sunset to 30 minutes before sunrise and in visual meteorological conditions.
No Co-payment Policy	No other fees or expenses, including professional fees, shall be charged to all members admitted in any basic or ward accommodations.
Non-Bank Financial Institutions	They are primarily engaged in long-term financing for the expansion and modernization of productive ventures and in facilitating short-term placements in other financial institutions. These include: a. Private non-bank financial intermediaries (Investment houses, financing companies, securities dealers and brokers, investment companies, fund managers, lending investors, pawnshops, private insurance companies, venture capital corporations, and money brokers); b. Government non-bank financial institutions (GSIS, SSS, NHMFC, Philippine Veterans Investment Development Corporation, and National Development Corporation); and c. Private non-bank thrift institutions (non-stock savings and loan associations). (PSA, 2011)
Non-Communicable disease	Also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. The main types of Non-communicable diseases (NCD) are cardiovascular diseases (i.e., heart attacks and stroke), cancers, chronic respiratory diseases (i.e., chronic obstructive pulmonary disease and asthma), and diabetes.
Non-Performing Loan	Refers to loan accounts whose principal and/or interest is unpaid for 30 days or more after due date or after they have become past due, in accordance with existing rules and regulations. (BSP, 2012)
Non-point Sources	Any source of pollution not identifiable as point source including, but not be limited to, runoff from irrigation or rainwater which picks up pollutants from farms and urban areas (RA 9275, 2004)
Non-teaching Staff	Persons employed by educational institutions who have no instructional responsibilities. Although the definition can vary from one country to another, non-teaching staff generally include headteachers, principals and other administrators of schools, supervisors, counsellors, school psychologists, school health personnel, librarians or educational media specialists, curriculum developers, inspectors, education administrators at the local, regional, and national level, clerical personnel, building operations and maintenance staff, security personnel, transportation workers and catering staff. (UIS, n.d.)
Non-Traditional Security Threats	A set of challenges to the survival and well-being of peoples and states that arise primarily out of non-military sources, such as climate change, resources scarcity, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crime. (Non-Traditional Security Studies [NTS]-Asia, n.d.)
Normalization	A process whereby communities can achieve their desired quality of life, which includes the pursuit of sustainable livelihood and political participation within a peaceful, deliberative society. (Framework Agreement on the Bangsamoro, 2012)
Nutrition-Sensitive Interventions and Programs	Interventions or programs that address the underlying determinants of maternal, fetal, infant and child nutrition and development, such as those pertaining to food security, social protection, adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment, and incorporate specific nutrition goals and actions. Nutrition-sensitive programs can serve as delivery platforms for nutrition-specific interventions, potentially increasing their scale, coverage, and effectiveness. (RA 11148, 2018)
Nutrition-Specific Interventions and Programs	Interventions or programs that address the immediate determinants of maternal, fetal, infant and child nutrition and development, adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases. (RA 11148, 2018)

One Town, One Product	A priority stimulus program for MSMEs as government's customized intervention to drive inclusive local economic growth. The program enables localities and communities to determine, develop, support, and promote products or services that are rooted in its local culture, community resource, creativity, connection, and competitive advantage. As their own 'pride-of-place,' these are offerings where they can be the best at or best renowned for. It endeavors to capacitate our 'OTOPreneurs' to innovate and produce market-ready products and services (DTI, n.d.).
Open Educational Resources	Electronic/digital resources and tools for learning in open document format and released under an intellectual property licence allowing free use, adaptation and distribution. (UIS, 2015)
Open Financing	This refers to leveraging on and sharing of customer-permissioned data among banks, other financial institutions, and third party providers to develop innovative financial solutions, such as, among others, those that provide real time payments, promote greater transparency to account holders, and provide marketing and cross-selling opportunities to banks, other financial institutions, and third party providers. (BSP, 2021)
Open Government Partnership	A multilateral initiative aimed at promoting transparent, participatory, inclusive, and accountable governance through collaboration between the government and non-government stakeholders. (Open Government Partnership, n.d.)
Out-of-Pocket Expenditure	These are expenditures of households for goods and services within the health accounts boundary, which include: medicines, food supplements, other medical products, therapeutic appliances, outpatient medical care, dental care, diagnostic services, and private and public hospital care.
Over-Indebtedness	A household is over-indebted when its existing and expected resources are insufficient to meet its financial commitments without lowering its standard of living, which might mean reducing it below what is regarded as the minimum acceptable in the country concerned, which in turn might have both social and policy implications. (Bank for International Settlements, 2013)
Overweight and Obesity	The abnormal or excessive fat accumulation that may impair health. It is measured by body mass index (BMI), a simple index of weight-for-height, which is commonly used to classify overweight and obesity among adults. (RA 11148, 2018)
Patent	An exclusive right granted for a new, inventive, and useful product. It can take the form of a new product, process or technical improvement to existing invention.
Patient navigation	A process where a person (navigator) engages with a patient to determine barriers to care and provides information to improve access to components of the health system, not just primary care.
Payment for Ecosystem Services	Arrangement between buyers and sellers of environmental goods and services in which those that pay are fully aware of what it is that they are paying for, and those that sell are proactively and deliberately engaging in resource use practices designed to secure the provision of the services. (Global Environment Facility, 2014)
Permanent Establishment	A fixed place of business through which the business of an enterprise is wholly or partly carried on.
Persons Deprived of Liberty	Includes all persons who are arrested, detained, imprisoned, or otherwise under custody of government authorities.
Persons of Concern	Refugees, stateless persons, and asylum seekers in the country. (EO 163, 2022)
Philippine Conventional Energy Contracting Program	A transparent petroleum service contract awarding mechanism that allows the government to develop and utilize indigenous petroleum resources under a service contract with qualified local and international exploration companies. Under this program, awarding of service contracts are conducted either through the competitive selection process or via nomination.
Philippine Creative Cities Network	This is a permanent program of the PCIDC that serves as an avenue of mutual support, exchange of ideas, and collaboration among the country's cities. (RA 11904, 2022)
Philippine Good Regulatory Principles	Set of principles outlining good regulatory practices to which agencies can align their regulatory processes and activities. It provides supplementary guidance to government agencies, businesses and other regulated entities on how they should regulate and expect to be regulated. (ARTA, 2021)
Philippine Identification System	A single national identification system for all citizens and resident aliens of the Republic of the Philippines. (RA 11055, 2018)

Philippine Skills Framework Initiative	The Philippine Skills Framework (PSF) builds upon the partnership among national government agencies and a key outcome of the signed memorandum of understanding (MOU) in 2019 between DTI, TESDA, and Skills Future Singapore to cooperate on human capital development and the reskilling and upskilling of the workforce. (DTI, n.d.)
Philippine Tourism Human Capital Development Plan 2021-2025	This plan is the continuation of the Philippine Tourism Human Resource Development Strategy and Action Plan 2015-2020. It builds upon past achievements of the plan as well as forges new strategies and action items, keeping in mind that as human capital, there is a trigger to constantly ensure that the tourism professionals are always valuable assets throughout their work life cycle. (DOT, n.d.)
Particulate Matter 10 PM 2.5	Particulate Matter (PM) with diameters less than 10 micrometers. (RA 8749, 1991) PM with diameters less than 2.5. (RA 8749, 1991)
Point Source	Any identifiable source of pollution with specific point of discharge into a particular water body. (RA 9275, 2004)
Population-Based Health Services	These are interventions such as health promotion, disease surveillance, and vector control, which have population groups as recipients.
Preliminary investigation	An inquiry or proceeding to determine whether there is a sufficient ground to engender a well-founded belief that a crime has been committed and the respondent is probably guilty thereof and should be held for trial.
Pre-service Teacher Training	Recognized and organized, private and public educational programs designed to train future teachers to formally enter the profession at a specified level of education. Graduates receive a government recognised teaching qualification. Pre-service training does not cover teachers who do not meet officially recognized training standards and are enrolled in a teacher training course to earn accreditation concurrent to their work as a teacher. (UIS, n.d.)
Price Elasticity of Demand	Ratio of the percentage change in quantity demanded of a good or service to the percentage change in the price of that good or service, all other things unchanged.
Primary Expenditure	Disbursements of the government excluding the interest payments on the debt.
Primary Health Care	This refers to a whole-of-society approach that aims to ensure the highest possible level of health and well-being through equitable delivery of quality health services.
Primary Producers	A person or organization producing basic agricultural commodities, such as a farmer or fisherfolk. This is defined in the PDP Chapter 7 as families whose household heads are engaged as skilled agricultural workers and AFF laborers.
Prime Commodities	Goods not considered as basic necessities but are essential to consumers such as, but not limited to, flour; dried, processed or canned pork, beef and poultry meat; dairy products not falling under basic necessities; onions, garlic, vinegar, patis, soy sauce; toilet soap; fertilizer, pesticides and herbicides; poultry, livestock and fishery feeds and veterinary products; paper; school supplies; nipa shingles; sawali; cement; clinker; GI sheets; hollow blocks; plywood; plyboard; construction nails; batteries; electrical supplies; light bulbs; steel wire; all drugs not classified as essential drugs by the DOH. (RA 10623, 2013)
Progressive Star-Rating System	A three-level recognition scheme of the DOT for Primary Tourism Enterprises entailing progressive minimum standards and reflecting customers expectations.
Province-Led Agriculture and Fisheries Extension System	Extension services where the province serves as an extension hub that synchronizes agricultural plans and programs as well as orchestrate the activities of the various stakeholders. (DA, n.d)
Province-wide and City-wide Health Systems	Integrated local health systems in which health care providers deliver continuous and integrated health services to individuals and/or communities in a well-defined catchment area. These health systems are forms of progressive cooperative undertakings among LGUs to complement the individual LGU's health operations. The private sector shall be encouraged to participate in the integrated local health system through a contractual arrangement with the Province-wide and City-wide Health Systems.
Public Employment Service Office	A non-fee charging multi-dimensional employment service facility or entity established in all LGUs in coordination with the DOLE, pursuant to RA 8759 or the Public Employment Service Office (PESO) Act of 1999 as amended by RA 10691.

Public Financial Management	Set of laws, rules, systems, and processes used by the government in resource mobilization and expenditure management. It is how the government raises its income (in the form of taxes, customs duties, and other revenues) and manages its expenditures to deliver essential services to its citizens in various areas (i.e., education, health care and other social programs, roads and infrastructure, the rule of law and security).
Public Health Emergency	An occurrence or imminent threat of an illness or health condition that: (a) Is caused by any of the following: (i) bioterrorism; (ii) appearance of a novel or previously controlled or eradicated infectious agent or biological toxin; (iii) a natural disaster; (iv) acchemical attack or accidental release; (v) a nuclear attack or accident; or (vi) an attack or accidental release of radioactive materials; and, (b) Poses a high probability of any of the following: (i) a large number of deaths in the affected population; (ii) a large number of serious injuries or long-term disabilities in the affected population; (iii) widespread exposure to an infectious or toxic agent that poses a significant risk of substantial harm to a large number of people in the affected population; (iv) international exposure to an infectious or toxic agent that poses a significant risk to the health of citizens of other countries; or (v) trade and travel restrictions.
Public Utility Vehicle Service Contracting Program	Introduced under RA 11494 or Bayanihan to Recover as One Act to provide temporary livelihood to displaced transport workers during the pandemic; first phase provided subsidies to displaced transport workers depending on kilometers traveled made per week, regardless of the number of passengers; second phase provided subsidies to public utility vehicle (PUV) operators depending on vehicle number of trips. (RA 11494, 2020)
Purchasing Managers' Index	Purchasing Managers' Index (PMI) data are compiled by S&P Global for more than 40 economies worldwide. The monthly data are derived from surveys of senior executives at private sector companies. The PMI dataset features a headline number, which indicates the overall health of an economy, and sub-indices, which provide insights into other key economic drivers such as GDP, inflation, exports, capacity utilization, employment and inventories. The PMI data are used by financial and corporate professionals to better understand where economies and markets are headed, and to uncover opportunities (S&P Global, n.d.).
R&D Leadership	The R&D Leadership (RDLead) Program aims to help develop and strengthen further the research capabilities of the academe, research and development institutions (RDIs), and other government line agencies nationwide. To this end, RDLeaders who are local S&T experts with strong leadership and innovative policy proficiencies are engaged to train, and direct and support their R&D goals. Depending on the R&D needs of the academe, RDIs, and line agencies, an RDLeader is engaged through application, screening, and evaluation by the National Research Council of the Philippines (NRCP). NRCP is the implementing agency of the RDLead Program (DOST, n.d.).
Rainwater Harvesting	A technology that collects and stores rainwater for human use. Rainwater harvesting systems range from simple rain barrels to more elaborate structures with pumps, tanks, and purification systems. (Ogale, 2022)
Recommended Energy/Nutrient Intake	Level of intake of energy or nutrient which is considered adequate for the maintenance of health and well-being of healthy persons in the population. (FNRI, 2015)
Regional Inclusive Innovation Centers	A network of innovation agents that collaborate to commercialize market-oriented research toward the competitiveness of the region, which aims to generate better employment opportunities, more entrepreneurial activities, and sustainable economic prosperity in the country's regions. (DTI, n.d.)
Regulatory Sandbox Framework	A framework set up by a regulator wherein fintech startup and other innovators could conduct live experiments within a well-defined space and duration under a regulator's supervision. It allows market players, who have greater flexibility and are more technically adept than regulators to innovate while providing the regulators a platform to observe and guide innovation in order to assess potential risks or externalities. (BSP, 2018)
Regulatory Sandbox Lite	A simplified approach available to BSFIs to encourage digitalization and/or participation in the electronic offering/delivery of financial products/services that are already within the scope of existing regulations. (BSP, 2022)
Regulatory Technology	Refers to the use of technology—particularly information technology— for regulatory implementation, compliance, and monitoring. It also refers to policy makers' and regulators' implementation of regulatory systems and requirements in the context of the technological design of financial infrastructure, including through their interactions with market infrastructure providers. (ADB, 2022)

Renewable Portfolio Standards	A government policy designed to increase the use of renewable energy sources for electricity generation. This policy require or encourage electricity suppliers to provide their customers with a stated minimum share of electricity from eligible renewable resources.
Resettlement Areas	This refers to areas identified by the appropriate national agency or by the local government unit with respect to areas within its jurisdiction, which shall be used for the relocation of the underprivileged and homeless citizens. (RA 7279, 1992)
Resiliency or Resilience	The capacity of social, economic, and environmental systems to cope with a hazardous event or trend disturbance, responding, or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning, and transformation. (Intergovernmental Panel on Climate Change, 2014).
Resource Efficient and Cleaner Production	Continuous application of preventive environmental strategies to processes, products and services in order to increase efficiency and reduce risks to humans and the environment. Resource Efficient and Cleaner Production (RECP) addresses the three sustainability dimensions individually and synergistically: a) heightened economic performance through improved productive use of resources, b) environmental protection by conserving resources and minimizing industry's impact on the natural environment, and c) social enhancement by providing jobs and protecting the wellbeing of workers and local communities. (UNIDO, 2022)
Resource Recovery	Refers to the collection, extraction or recovery of recyclable materials from the waste stream for the purpose of recycling, generating energy or producing a product suitable for beneficial use: Provided, that, such resource recovery facilities exclude incineration. (RA 9003, 2001)
Retail Competition and Open Access	Allows contestable customers to decide which electricity suppliers to source power from. The establishment of Retail Competition and Open Access (RCOA) is mandated by the Electric Power Industry Reform Act of 2001 (EPIRA) to offer options to the End-Users and grow the market.
Revealed Comparative Advantage	It is a computed metric that tries to approximate a country's export strengths. The metric is computed as the share of the Philippines' exports of a product to total PH exports divided by the share of the world's exports of a product to total world exports.
Roll-On/Roll-Off	A modern cargo handling technique first introduced in 1950s, in which vessels are used to carry wheeled cargo. Rolling stock is ready for delivery upon arrival at the discharge port, and loading, stowing, and discharge operations are simplified. This method is used on board many ships such as roll-on/roll-off (ro-ro) freight ferries, multipurpose ro-ro carriers, car carriers, rail/vehicle ferries and car/passenger ferries.
Route Rationalization	Route rationalization determines the appropriate mode, quantity and service characteristics of the public transport service in each corridor which will make the routes more responsive to passenger demand and ensure that the hierarchy of roads and modes of transportation are followed. (LTFRB, 2021)
Rule of Law	A principle of governance in which all persons, institutions and entities, public and private, including the state itself, are accountable to laws.
Safe Spaces	Streets, public spaces, educational or training institutions, workplace, as well as online spaces free from unwanted and uninvited sexual actions or remarks against any person regardless of the motive. (RA 11313, 2019)
Sanitary Landfill	A waste disposal site designed, constructed, operated, and maintained in a manner that exerts engineering control over significant potential environmental impacts arising from the development and operation of the facility. (RA 9003, 2000)
School-Based Management	Transfers decision-making authority and responsibility for school operations from central government to local stakeholders to better reflect local priorities and improve student outcomes. (UNESCO, n.d.)
School-Governing Council	The overall coordinating body of all committees, associations, and organizations in their schools that shall translate the principle of shared governance enshrined in RA 9155 and contribute in strengthening the implementation of School-Based Management. (DepEd, n.d.)

Science and Technology Parks	Encompasses any kind of high technology cluster such as technopolis, science park, science city, cyber park, industrial park, innovation center, R&D park, university research park, research and technology park, science and technology park, science city, science town, technology park, technology incubator, technopark, technopole and technology business incubator run by an organization managed by specialized professionals whose main aim is to increase the wealth of its community by promoting the culture of innovation and the competitiveness of its associated businesses and knowledge-based institution (SB 1944, 2020).
Science for Change Program	A program created to accelerate STI in the country in order to keep up with the developments in our time wherein technology and innovation are game changers. Through the Science for Change Program (S4CP), the DOST can significantly accelerate STI in the country and create a massive increase in investment on S&T Human Resource Development and R&D (DOST, n.d.)
Seal of Good Local Governance	An award, incentive, honor and recognition-based program for all LGUs and is a continuing commitment for LGUs to continually progress and improve their performance. (RA 11292, 2019)
Secondary Raw Materials	Waste materials that can be recycled and then injected back into the economy as new raw materials. (EC 614, 2015)
Self-Reliant Defense Posture Program	The development of a national defense industry by incentivizing in-country enterprises and rationalizing defense acquisition. (SBs 2113 and 1871, 2020 and 2021)
Severe Food Insecurity	A situation when people have typically run out of food and, at worst, gone a day (or days) without eating. (DOST-FNRI ENNS, 2018)
Sex-Disaggregated Data	The statistical information that differentiates between women and women and allows one to see where the gaps are in their position or condition (Gender dictionary) or statistical information that differentiates between men and women in order to allow differential impacts on men and women to be measured (GMEF).
Shared Agent Network	It is a network of cash agents that are contributed by eligible institutions who agree to share agents through an interconnection arrangement and allow payments from and to their own cash agents to be made directly to/from wallets/accounts at other agents. (USAID, 2020)
Shared Service Facility	Refers to machinery, equipment, tools, systems accessories and other auxiliary items, skills, and knowledge that are being provided by the DTI under a combined and collective system to its target beneficiaries. (RA 11904, 2022)
Shock Responsive Social Protection	Focuses on the potential for using national social protection systems to deliver responses to shocks in low income countries and fragile contexts, thus reducing the need for separate emergency responses. In this approach, it is important to link with the humanitarian sector in order to build systems that can provide more timely and flexible support in advance or in the aftermath of shocks. (DSWD and UNFAO, 2022)
Shocks	A disturbance causing instability, harm, or damage.
Significant Market Power	The ability to unilaterally restrict output, raise prices, reduce quality or otherwise act, to a significant extent, independently of competitive market forces. (Singapore Info-communications Media Development Authority, 2022).
Single Carpeta System	An integrated database of inmate information management for Bureau of Jail Management and Penology, Board of Pardons and Parole, and Parole and Probation Administration. The system will serve as an exchange portal among the three agencies and with the Inmate Management Information System of Bureau of Corrections.
Single-Use Plastic	Disposable plastic materials commonly used as packaging and other items intended to be used only once before they are thrown away or recycled. (UNEP, 2018)
Smart Industry Readiness Index	SIRI, developed by the Singapore Economic Development Board (EDB), is a suite of frameworks and tools to help manufacturers – regardless of size and industry start, scale, and sustain their manufacturing transformation journeys. It covers three major blocks, namely: Process, Technology, and Organization which are each comprised of pillars and dimensions which are evaluated to generate a holistic Industry 4.0-readiness assessment (DTI, n.d.).
Social Assistance	Social assistance programs give basic protection to those who are poor, excluded, discriminated and marginalized. These may include conditional and unconditional cash transfers, housing and shelter subsidies, food stamps, educational scholarships, etc. Social assistance must be specific depending on the needs of the sector. (DSWD Revised SPOF, 2019)

Social Cohesion	A state of affairs between and among members of the community and between citizens and their government, where they are bound together by norms, values, practices, and relationships, characterized by respect for diversity, culture of peace, cooperation, and trust.
Social Health Insurance	A financing arrangement that ensures access to health care based on a payment of a non-risk-related contribution by or on behalf of the eligible person. The social health insurance scheme is established by a specific public law, defining, among others, the eligibility, benefit package and rules for the contribution payment.
Social Insurance	Social Insurance and related programs are contributory and non-contributory based schemes protecting households from lifecycle and health related risks. Examples include life and health insurance, crop insurance, pensions, and retirement benefits. (DSWD Revised SPOF, 2019)
Social Protection	Constitutes policies and programs that seek to reduce poverty and vulnerability to risks and enhance the social status and rights of the marginalized by promoting and protecting livelihood and employment, protecting against hazards and sudden loss of income, and improving people's capacity to manage risks. (Social Development Committee [SDC] Resolution No. 1, 2007)
Social Protection Floor	Nationally-defined sets of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability, and social exclusion. These include four guarantees—health care, income security for children, working adults and the elderly. (ILO, n.d.)
Social Protection System	Government programs that help individuals and families, especially the poor and vulnerable, cope with crises and shocks, find jobs, improve productivity, invest in the health and education of their children, and protect the aging population. (World Bank [WB], n.d.)
Social Safety Nets	Short-term stop-gap measures usually implemented as a response to emergencies and crisis situations unlike social assistance and services which maybe regular programs with longer duration. (DSWD Revised SPOF, 2019)
Solid Waste	Refers to all discarded household, commercial waste, non-hazardous institutional and industrial waste, street sweepings, construction debris, agricultural waste, and other non-hazardous/non-toxic solid waste. (RA 9003, 2000)
Solid Waste Management	The systematic administration of activities which provide for segregation at source, segregated transportation, storage, transfer, processing, treatment, and disposal of solid waste and all other waste management activities which do not harm the environment. (RA 9003, 2000)
Space Science and Technology Applications	The scientific principles and their applications to space science, engineering and other allied fields. (RA 11363, 2018)
Special Health Fund	A pool of financial resources at the P/CWHS intended to finance health services and health system operations.
Specialty center	A unit or a department in a hospital that offers specialized care addressing particular conditions and/or providing specific procedures and management of cases requiring specialized training and/or equipment.
Startup	Any person or registered entity which aims to develop innovative products, processes or business model.
Strategic Investment Priority Plan	The SIPP lists activities that qualify for investment incentives under the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act. Incentives in the SIPP take the form of income tax holidays (ITH), enhanced deductions (EH), and a preferential 5 percent corporate income tax rate (CIT). Typically, an incentive will have 4-7 years of ITH before transitioning to 5-10 years of either EH or CIT. Investors can elect whether to claim EH or CIT if engaged in export activities. The length of the incentive depends on which of the three tiers the relevant activity falls under, whether the activity is domestic or for export, and whether the investment is in the National Capital Region, metropolitan areas, or areas contiguous and adjacent to the National Capital Region, or other regions.
Strategic Plan for Judicial Innovations 2022-2027	Serves as the SC's plan of action to address institutional challenges using four guiding principles for the Judiciary's delivery of justice: (a) timely and fair; (b) transparent and accountable; (c) equal and inclusive; and (d) technology adaptive. Steered by these guiding principles, the Court targets three major outcomes: Efficiency, Innovation, and Access.

Stunting	Chronic undernutrition during the most critical periods of growth and development in early life. It is defined as the percentage of children aged zero to 59 months whose height for age is below minus two SD (moderate stunting) and minus three SD (severe stunting) from the median of the WHO Child Growth Standards. (RA 11148, 2018)
Subsistence Incidence	The proportion of families/individuals with per capita income/expenditure less than the per capita food threshold to the total number of families/individuals. (NSCB Resolution 2, 2007)
Supply Chain Financing	A form of financial transaction wherein a third party facilitates an exchange by financing the supplier on the customer's behalf. Also, it refers to the techniques and practices used by banks and other financial institutions to manage the capital invested into the supply chain and reduce risk for the parties involved. (International Chamber of Commerce, n.d.)
Supreme Court Ruling on the Mandanas-Garcia Case	The SC ruled that all collections of national taxes, except those accruing to special purpose funds and special allotments for the utilization and development of the national wealth, should be included in the computation of the base of the just share of local government units. (EO 138, 2021)
Sustainable Consumption and Production	Use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generation. (RA 11898, 2022)
Sustainable Finance	Refers to the process of taking environmental, social, and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. Environmental considerations might include climate change mitigation and adaptation, as well as the environment more broadly, for instance the preservation of biodiversity, pollution prevention and the circular economy. Social considerations could refer to issues of inequality, inclusiveness, labour relations, investment in human capital and communities, as well as human rights issues. (EC, 2022)
Sustainable Financing	The process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions in the financial sector, leading to increased longer-term investments into sustainable economic activities and projects. (WB, 2021)
Sustainable Tourism	Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities. (UN World Trade Organization, n.d.)
Technology Adoption	The process of accepting, integrating, and using new technology in society.
Technology Transfer	The process of conveying results stemming from scientific and technological research to the market place and to wider society, along with associated skills and procedures, and is as such an intrinsic part of the technological innovation process.
The LGU Energy Code	The LGU Energy Code provides the Guidelines for LGUs to facilitate the implementation of energy projects. The Energy Code aims to establish, strengthen, and integrate national energy plans, programs, policies and mechanisms into local development plans. It encompasses energy safety practices, energy efficiency and conservation, energy resiliency, and energy planning. It will also harmonize and fast-track the implementation of regulatory reform laws/orders, such as the Energy Virtual One-Stop Shop Act and Ease of Doing Business Act.
TradeLine	Business intelligence platform that aims to deliver timely and relevant information and assistance to existing and potential exporters to enhance their capabilities and competitiveness as suppliers of quality goods and services to global markets.
Trademark	A word, or group of words, sign, symbol, or a logo that distinguishes a business' goods or services from those of other traders.
TradeNet	The country's gateway for trade facilitation, which provides automated licensing, permit, clearance, and certification system with regulatory agencies, integrated into one internet-based platform.
Transitional Justice	The approach to address systematic human rights violations committed especially during armed conflict situations, provide redress for victims, and address the root causes of abuses to prevent it from recurring again (International Center for Transitional Justice, n.d.).
Transnational Crime	Offenses whose inception, perpetration, and/or direct or indirect effects involve more than one country. (UN Office on Drugs and Crime, n.d.)

Transnational Higher Education	This includes all types and modes of delivery of higher education study programs, sets of courses of study, or educational services, including distance education and study-abroad programs, which involve education systems of a State different from the State where a transnational higher education (TNHE) provider operates or programs which may operate independently of any national education system or where the learners are located in a country different from the one where the awarding institution is based. (RA 11448, 2019)
Transport Accreditation Permit and Pass for Ports	Serves as a single certificate of accreditation, permit to operate, and vehicle access pass for transport service providers; and is required of transport service providers doing business at ports under the jurisdiction of the Philippine Ports Authority (PPA). (PPA AO 1, 2022)
Triple Burden of Disease	Simultaneous high prevalence of communicable diseases, non-communicable diseases, and health conditions related to rapid urbanization and industrialization.
Underemployed	Refers to the employed persons who express the desire to have additional hours of work in their present job or an additional job, or have a new job with longer working hours. (PSA, n.d.)
Underemployment Rate	The proportion of underemployed persons to total employed person. (PSA, n.d.)
Under-Five Mortality Rate	The probability of dying between birth and age five, expressed as the number of deaths below age five per 1,000 live births during a given period.
Unemployed	Persons in the labor force who are reported as (a) without work; (b) currently available for work; and (c) seeking work or not seeking work because of the belief that no work is available, or awaiting results of previous job application, or because of temporary illness or disability, bad weather or waiting for rehire or job recall. The proportion of unemployed persons to the total labor force is called the unemployment rate.
Unemployment Rate	The proportion of unemployed persons to the total labor force. (PSA LFS, n.d.)
Unimproved Sanitation Service Level	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines. (PSA APIS, 2020)
Universal Accessibility	The quality of being accessible to the greatest extent possible by everyone, regardless of their age, ability, or status in life.
Universal Health Care	Refers to a conceptual framework based on the WHO's three dimensions of universal health coverage: population coverage, service coverage, and financial coverage. (RA 11223, 2019)
Universal Logistics Pass	A unified application form that facilitate the unhampered movement of trucks for hire that delivery basic goods and necessities across the country; eliminates the varying and separate pass-through stickers being required by economic zones, ports, and LGUs. (ARTA, 2022)
Urban Agriculture	Includes the cultivation, processing and distribution of agricultural products in urban and suburban areas. Community gardens, rooftop farms, hydroponic, aeroponic, and aquaponic facilities, and vertical production are all examples of urban agriculture. (US Department of Agriculture, 2022)
Urban Carrying Capacity	The maximum level of human activities, population growth, land use and physical development that can be sustained by the urban environment without causing its serious degradation and irreversible damage. (NEDA, 2019)
Urban Development and Housing Act	This mandates the State to undertake, in cooperation with the private sector, a comprehensive and continuing Urban Development and Housing Program. (RA 7279, 1992)
Urban Mining	A process in which products, components of products, elements, and secondary raw materials from used products are first discarded, and then recovered and reused as products or resources. (ADB, 2019)
Utility Model	An exclusive right granted for an invention, but it does not require the condition of the involvement of an inventive step to be protected.
Value Chain Financing	Provides a set of financial instruments that can be applied for agribusinesses at different stages, which helps small holders access the financing they need to expand. There are several financing options besides bank and nonbank credit. (ADB, 2017)
Venture Capital	A form of private equity and a type of financing that investors provide to startup companies and small businesses that are believed to have long-term growth potential.

Venture Capital Funds	A type of investment fund that invests in early-stage startup companies that offer a high return potential but also come with a high degree of risk. The fund is managed by a venture capital firm, and the investors are usually institutions or high net worth individuals. (Corporate Finance Institute, 2022)
Violence Against Women and their Children	Any act or a series of acts committed by any person against a woman who is his wife, former wife, or against a woman with whom the person has or had a sexual or dating relationship, or with whom he has a common child, or against her child whether legitimate or illegitimate, with or without the family abode, which result in or is likely to result in physical, sexual, psychological harm or suffering, or economic abuse including threats of such acts, battery, assault, coercion, harassment or arbitrary deprivation of liberty. (RA 9262, 2004)
Vulnerable Employment	This includes the vulnerable self-employed and unpaid family workers.
Warehouse Receipts Financing	The use of securely stored goods as loan collateral. These programs allow producers to deposit a finished good or agricultural product in a secure warehouse where the producer receives a receipt certifying the deposit of goods of a particular quantity, quality, and grade. (USAID, 2000)
Waste Diversion	Refer to activities which reduce or eliminate the amount of solid waste from waste disposal facilities. (RA 9003, 2000)
Wasting	A reduction or loss of body weight in relation to height. (WHO, 2014)
Water Quality Management Areas	Designated areas with similar hydrological, hydrogeological, meteorological or geographic conditions which affect the physicochemical, biological and bacteriological reactions and diffusions of pollutants in the water bodies, or otherwise share common interest or face similar development programs, prospects or problems. (RA 9275, 2004)

PDP Organizational Set-up

The background of the slide features a gradient from blue at the top to red at the bottom. On the right side, there are decorative elements consisting of multiple thin, overlapping wavy lines that create a sense of motion, and a faint grid pattern that is more prominent in the upper right quadrant.

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Planning Committees

CHAPTERS 2.1, 2.2, 2.3 AND 3.2: HUMAN AND SOCIAL DEVELOPMENT

Chair: Department of Education (DepEd)

Member Agencies:

Department of Health (DOH)	National Nutrition Council (NNC)
Department of Human Settlements and Urban Development (DHSUD)	National Anti-Poverty Commission (NAPC)
Department of Social Welfare and Development (DSWD)	National Youth Commission (NYC)
Commission on Higher Education (CHED)	Philippine Commission on Women (PCW)
Council for the Welfare of Children (CWC)	Commission on Population and Development (POPCOM)
Department of Agriculture (DA)	Technical Education and Skills Development Authority (TESDA)
Department of Budget and Management (DBM)	Office of the President – Office of Executive Secretary (OP-OES)
Department of Agrarian Reform (DAR)	Philippine Health Insurance Corporation (PhilHealth)
Department of Information and Communications Technology (DICT)	Department of Public Works and Highways (DPWH)
Department of the Interior and Local Government (DILG)	Department of Environment and Natural Resources (DENR)
Department of Labor and Employment (DOLE)	Philippine National Volunteer Service Coordinating Agency (PNVSCA)
Department of Science and Technology (DOST)	Philippine Statistics Authority (PSA)
Department of Migrant Workers (DMW)	Department of Foreign Affairs (DFA)
Presidential Commission on the Urban Poor (PCUP)	National Economic and Development Authority (NEDA)

SUBCHAPTER 2.1: BOOST HEALTH

Chair: Department of Health (DOH)

Member Agencies:

Department of Information and Communication Technology (DICT)	Department of Labor and Employment (DOLE)
Commission on Population and Development (POPCOM)	Commission on Higher Education (CHED)
Philippine Health Insurance Corporation (PhilHealth)	Professional Regulation Commission (PRC)
DOST - Food and Nutrition Research Institute (DOST-FNRI)	Department of Migrant Workers (DMW)
DOST - Philippine Council for Health Research and Development (DOST-PCHRD)	Department of Budget and Management (DBM)
National Nutrition Council (NNC)	Department of the Interior and Local Government (DILG)
Philippine Statistics Authority (PSA)	Department of Agriculture (DA)
UP - National Institutes of Health (UP-NIH)	National Economic and Development Authority (NEDA)
	Department of Public Works and Highways (DPWH)
	HoR - Congressional Policy and Budget Research Department (HoR-CPBRD)

SUBCHAPTER 2.2: IMPROVE EDUCATION AND LIFELONG LEARNING

Chair: Department of Education (DepEd)

Member Agencies:

Commission on Higher Education (CHED)	Department of Public Works and Highways (DPWH)
Technical Education and Skills Development Authority (TESDA)	Professional Regulation Commission (PRC)
Department of Information and Communications Technology (DICT)	HoR - Congressional Policy and Budget Research Department (HoR-CPBRD)
Early Childhood Care and Development Council (ECCDC)	National Council on Disability Affairs (NCDA)
DOST - Science Education Institute (DOST-SEI)	National Commission on Indigenous Peoples (NCIP)
Department of Labor and Employment (DOLE)	Department of Trade and Industry (DTI)
Philippine Statistics Authority (PSA)	National Economic and Development Authority (NEDA)
Philippine Normal University (PNU)	

SUBCHAPTER 2.3: ESTABLISH LIVABLE COMMUNITIES

Chair: Department of Human Settlements and Urban Development (DHSUD)

Member Agencies:

Department of Public Works and Highways (DPWH)
Climate Change Commission (CCC)
National Water Resources Board (NWRB)
Office of the Civil Defense (OCD)
Presidential Commission for the Urban Poor (PCUP)
Department of Transportation (DOTr)
Department of the Interior and Local Government (DILG)
Department of Energy (DOE)
Metropolitan Manila Development Authority (MMDA)
National Commission on Indigenous Peoples (NCIP)
Department of Trade and Industry (DTI)

Department of Tourism (DOT)
Department of Environment and Natural Resources (DENR)
DOST - Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD)
Department of Health (DOH)
Department of Labor and Employment (DOLE)
Department of Information and Communications Technology (DICT)
Local Water Utilities Administration (LWUA)
Philippine Sports Commission (PSC)
National Economic and Development Authority (NEDA)

CHAPTER 3.1: ENSURE FOOD SECURITY AND PROPER NUTRITION

Chair: National Economic and Development Authority (NEDA)

Vice Chair: Department of Agriculture (DA)

Member Agencies:

Department of Trade and Industry (DTI)
Department of Finance (DOF)
Department of Agrarian Reform (DAR)
Department of Budget and Management (DBM)
Department of Environment and Natural Resources (DENR)
Department of Labor and Employment (DOLE)
National Nutrition Council (NNC)
Food and Nutrition Research Institute (FNRI)
DOST - Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARD)
Philippine Crop Insurance Corporation (PCIC)

Philippine Guarantee Corporation (PHILGUARANTEE)
Philippine Institute for Development Studies (PIDS)
Philippine Statistics Authority (PSA)
Cooperative Development Authority (CDA)
Food and Drug Administration (FDA)
Land Bank of the Philippines (LANDBANK)
Technical Education and Skills Development Authority (TESDA)
Senate Economic Planning Office (SEPO)
HoR - Congressional Policy and Budget Research Department (HoR-CPBRD)

SUBCHAPTER 3.2: STRENGTHEN SOCIAL PROTECTION

Chair: Department of Social Welfare and Development (DSWD)

Member Agencies:

Department of Labor and Employment (DOLE)
Department of Budget and Management (DBM)
Department of Interior and Local Government (DILG)
Department of Information and Communications Technology (DICT)
Council for the Welfare of Children (CWC)
Government Service Insurance System (GSIS)
League of Municipalities of the Philippines (LMP)
National Anti-Poverty Commission (NAPC)
National Youth Commission (NYC)
Philippine Commission on Women (PCW)
Social Security System (SSS)
Department of Health (DOH)

League of Provinces of the Philippines (LPP)
Employees' Compensation Commission (ECC)
League of Cities of the Philippines (LCP)
National Council on Disability Affairs (NCDA)
National Commission on Indigenous Peoples (NCIP)
Office of the Civil Defense (OCD)
Philippine Health Insurance Corporation (PhilHealth)
Philippine Statistics Authority (PSA)
Philippine Charity Sweepstakes Office (PCSO)
Philippine National Police (PNP)
National Economic and Development Authority (NEDA)
HoR - Congressional Policy and Budget Research Department (HoR-CPBRD)

CHAPTER 4: INCREASE INCOME-EARNING ABILITY

Chair: Department of Labor and Employment (DOLE)

Member Agencies:

Commission on Higher Education (CHED)	National Wages and Productivity Commission (NWPC)
Technical Education and Skills Development Authority (TESDA)	Department of Agriculture (DA)
Department of Trade and Industry (DTI)	Department of Science and Technology (DOST)
Department of Information and Communications Technology (DICT)	Philippine Commission on Women (PCW)
National Youth Commission (NYC)	Philippine Statistics Authority (PSA)
Philippine Institute for Development Studies (PIDS)	National Economic and Development Authority (NEDA)
Department of Education (DepEd)	Professional Regulation Commission (PRC)

CHAPTER 5: MODERNIZE AGRICULTURE AND AGRIBUSINESS

Chair: Department of Agriculture (DA)

Vice Chair: Department of Agrarian Reform (DAR)

Member Agencies:

Department of Environment and Natural Resources (DENR)	HoR - Congressional Policy and Budget Research Department (HoR-CPBRM)
Department of Trade and Industry (DTI)	Land Bank of the Philippines (LANDBANK)
DOST - Food and Nutrition Research Institute (DOST-FNRI)	National Economic and Development Authority (NEDA)
DOST - Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)	National Nutrition Council (NNC)
Department of Labor and Employment (DOLE)	Philippine Crop Insurance Corporation (PCIC)
Department of Finance (DOF)	Philippine Guarantee Corporation (PHILGUARANTEE)
Department of Budget and Management (DBM)	Philippine Institute for Development Studies (PIDS)
Cooperative Development Authority (CDA)	Philippine Statistics Authority (PSA)
Food and Drug Administration (FDA)	Senate Economic and Planning Office (SEPO)
	Technical Education and Skills Development Authority (TESDA)

CHAPTER 6: REVITALIZE INDUSTRY

Chair: Department of Trade and Industry (DTI)

Member Agencies:

DTI - Bureau of Trade and Industry Policy Research (DTI-BTIPR)	Department of Agriculture (DA)
DTI - Bureau of Small and Medium Enterprise Development (DTI-BSMED)	Bureau of Fisheries and Aquatic Resources (BFAR)
Technical Education and Skills Development Authority (TESDA)	Philippine Statistics Authority (PSA)
Intellectual Property of the Philippines (IPOPHL)	Development Bank of the Philippines (DBP)
DENR - Mines and Geosciences Bureau (DENR-MGB)	HoR - Congressional Policy and Budget Research Department (HoR - CPBRD)
Department of Labor and Employment (DOLE)	DTI - Competitiveness and Innovation Group (DTI-CIG)
Department of Science and Technology (DOST)	DTI - Consumer Policy and Advocacy Bureau (DTI-CPAB)
Department of Interior and Local Government (DILG)	DTI - Consumer Protection Group (DTI-CPG)
Philippine Institute for Development Studies (PIDS)	DTI - Board of Investments (DTI-BOI)
Senate Economic Planning Office (SEPO)	DTI - Bureau of International Trade Relations (DTI-BITR)
House of Representatives	Department of Education (DepEd)
DOST - Philippine Council for Industry, Energy and Emerging Technology, Research and Development (DOST-PCIEERD)	Commission on Higher Education (CHED)
Bangko Sentral ng Pilipinas (BSP)	DTI - Philippine Trade Training Center (DTI-PTTC)
DTI - Competitiveness Bureau (DTI-CB)	Anti-Red Tape Authority (ARTA)
DTI - Philippine Accreditation Bureau (DTI-PAB)	DTI - Planning and Management Service (DTI-PMS)
DTI - Bureau of Philippine Standards (DTI-PBS)	DTI - Construction Industry Authority of the Philippines (DTI-CIAP)
Cooperative Development Authority (CDA)	Department of Environment and Natural Resources (DENR)
Philippine Economic Zone Authority (PEZA)	DTI - Small Business Corporation (DTI-SBC)
Department of Energy (DOE)	National Economic and Development Authority (NEDA)

CHAPTER 7: REINVIGORATE SERVICES

Chair: Department of Trade and Industry (DTI)

Member Agencies:

National Commission on Culture and the Arts (NCCA)	DTI - Board of Investments (DTI-BOI)
Department of Information and Communications Technology (DICT)	DTI - Digital Philippines Office (DTI-DPO)
Department of Labor and Employment (DOLE)	DTI - Export Marketing Bureau (DTI-EMB)
Tourism Infrastructure and Enterprise Zone Authority (TIEZA)	Philippine Ports Authority (PPA)
Department of Transportation (DOTr)	Civil Aeronautics Board (CAB)
Maritime Industry Authority (MIA)	National Telecommunications Commission (NTC)
Civil Aviation Authority of the Philippines (CAAP)	DTI - Design Center of the Philippines
Technical Education and Skills Development Authority (TESDA)	Department of Tourism (DOT)
Philippine Institute for Development Studies (PIDS)	Philippine Economic Zone Authority (PEZA)
Congressional Policy and Budget Research Department (HoR - CPBRD)	Philippine Statistics Authority (PSA)
Senate Economic Planning Office (SEPO)	National Economic and Development Authority (NEDA)
Bangko Sentral ng Pilipinas (BSP)	

CHAPTER 8: ADVANCE RESEARCH AND DEVELOPMENT, TECHNOLOGY, AND INNOVATION

Chair: Department of Science and Technology (DOST)

Member Agencies:

Department of Environment and Natural Resources (DENR)	Office of the President (OP)
Department of Budget and Management (DBM)	Department of Trade and Industry (DTI)
Commission on Higher Education (CHED)	Department of Agriculture (DA)
Department of Information and Communications Technology (DICT)	Department of Health (DOH)
Department of the Interior and Local Government (DILG)	Department of Transportation (DOTr)
Department of Foreign Affairs (DFA)	Department of Energy (DOE)
Department of Labor and Employment (DOLE)	Department of National Defense (DND)
Intellectual Property Office of the Philippines (IPOPHL)	Department of Education (DepEd)
National Economic and Development Authority (NEDA)	Philippine Space Agency (PhilSA)

CHAPTER 9: PROMOTE TRADE AND INVESTMENTS

Chair: Department of Trade and Industry (DTI)

Member Agencies:

Department of Agriculture (DA)	Bangko Sentral ng Pilipinas (BSP)
Department of Foreign Affairs (DFA)	Bureau of Customs (BOC)
Department of Finance (DOF)	Philippine Institute for Development Studies (PIDS)
Department of Science and Technology (DOST)	Philippine Statistics Authority (PSA)
Department of Labor and Employment (DOLE)	Tariff Commission (TC)
Department of Information and Communications Technology (DICT)	Securities and Exchange Commission (SEC)
DTI - Bureau of International Trade Relations (DTI-BITR)	Export Development Council (EDC)
DTI - Bureau of Import Services (DTI-BIS)	National Security Council (NSC)
DTI - Export Marketing Bureau	Philippine Space Agency (PhilSA)
DTI - Bureau of Domestic Trade Promotion (DTI-BDTP)	National Economic and Development Authority (NEDA)
DTI - Strategic Trade Management Office (DTI-STMO)	Congressional Policy and Budget Research Department (HoR-CPBRD)
DTI - Board of Investments (DTI-BOI)	Senate Economic Planning Office (SEPO)
Philippine Economic Zone Authority (PEZA)	

CHAPTER 10: PROMOTE COMPETITION AND IMPROVE REGULATORY EFFICIENCY

Chair: Philippine Competition Commission (PCC)

Member Agencies:

DOJ - Office for Competition (DOJ-OFC)
DTI - Consumer Protection Group (DTI-CPG)
Government Procurement Policy Board (GPPB)
Development Academy of the Philippines (DAP)
Department of Finance (DOF)

Anti-Red Tape Authority (ARTA)
Governance Commission for Government-Owned or -Controlled Corporations (GCG)
UP-College of Law (UP-Law)
Department of Information and Communications Technology (DICT)
National Economic and Development Authority (NEDA)

SUBCHAPTER 11.1: PROMOTE AND INNOVATIVE, INCLUSIVE, AND HEALTHY FINANCIAL SECTOR

Chair: Bangko Sentral ng Pilipinas (BSP)

Member Agencies:

Securities and Exchange Commission (SEC)
Philippine Statistics Authority (PSA)
Government Service Insurance System (GSIS)
Cooperative Development Authority (CDA)
Land Bank of the Philippines (LANDBANK)
DTI - Small Business Corporation (DTI-SBC)
SEC - Microfinance Non-Government Organizations (NGO) Regulatory Council
Social Security System (SSS)
Insurance Commission (IC)

Philippine Deposit Insurance Commission (PDIC)
Department of Trade and Industry (DTI)
Development Bank of the Philippines (DBP)
Philippine Guarantee Corporation (PHILGUARANTEE)
Overseas Filipino Bank (OFBank)
Department of Finance (DOF)
Home Development Mutual Fund (Pag-IBIG)
National Anti-Poverty Commission (NAPC)

SUBCHAPTER 11.2: ENSURE SOUND FISCAL MANAGEMENT AND IMPROVE THE TAX REGIME

Chair: Department of Finance (DOF)

Member Agencies:

Bureau of the Treasury (BTr)
Bureau of Customs (BOC)
Bureau of Internal Revenue (BIR)

DOF - Bureau of Local Government Finance (DOF-BLGF)
Department of Budget and Management (DBM)
National Economic and Development Authority (NEDA)

CHAPTER 12: EXPAND AND UPGRADE INFRASTRUCTURE

Chair: Department of Public Works and Highways (DPWH)

Member Agencies:

OP - Office of Executive Secretary (OP-OES)
Public-Private Partnership Center (PPPC)
Department of Trade and Industry (DTI)
Department of Information and Communications Technology (DICT)
Department of Budget and Management (DBM)

Department of Transportation (DOTr)
Department of Energy (DOE)
Department of Tourism (DOT)
Department of Agriculture (DA)
Department of Finance (DOF)

SUB-PLANNING COMMITTEE ON CONNECTIVITY

Chair: Department of Transportation (DOTr)

Co-Chair: Department of Information and Communications Technology (DICT)

Member Agencies:

Bases Conversion and Development Authority (BCDA)
Civil Aviation Authority of the Philippines (CAAP)
Civil Aeronautics Board (CAB)
Clark Development Corporation (CDC)
Cagayan Economic Zone Authority (CEZA)
Clark International Airport Corporation (CIAC)
Cebu Ports Authority (CPA)
Department of Agriculture (DA)
Department of Human Settlements and Urban Development (DHSUD)
Davao International Airport Authority (DIAA)
Department of the Interior and Local Government (DILG)
Department of Tourism (DOT)
Department of Public Works and Highways (DPWH)
Light Rail Transit Authority (LRTA)
Land Transportation Franchising and Regulatory Board (LTFRB)
Land Transportation Office (LTO)

Mactan-Cebu International Airport Authority (MCIAA)
Manila International Airport Authority (MIAA)
Maritime Industry Authority (MARINA)
Metropolitan Manila Development Authority (MMDA)
Office of Transportation Security (OTS)
Philippine National Railways (PNR)
Philippine Coast Guard (PCG)
Philippine Economic Zone Authority (PEZA)
Philippine Ports Authority (PPA)
Poro Point Management Corporation (PPMC)
Subic Bay Metropolitan Authority (SBMA)
Toll Regulatory Board (TRB)
UP – National Center for Transportation Studies (UP-NCTS)
UP – School of Urban and Regional Planning (UP-SURP)
National Electrification Administration (NEA)
National Telecommunications Commission (NTC)

SUB-PLANNING COMMITTEE ON ENERGY

Chair: Department of Energy (DOE)

Co-Chair: Department of Finance (DOF)

Member Agencies:

Energy Regulatory Commission (ERC)
Independent Electricity Market Operator of the Philippines (IEMOP)
National Electrification Administration (NEA)
National Grid Corporation of the Philippines (NGCP)
National Power Corporation (NPC)
National Transmission Corporation (TransCo)

Philippine Electricity Market Corporation (PEMC)
Philippine National Oil Company (PNOC)
PNOC-Renewables Corporation
PNOC-Exploration Corporation
Power Sector Assets and Liabilities Management Corporation (PSALM)

SUB-PLANNING COMMITTEE ON WATER

Chair: National Economic and Development Authority (NEDA)

Co-Chair: National Water Resources Board (NWRB)

Member Agencies:

Department of Agriculture (DA)
DA - Bureau of Soils and Water Management (DA-BSWM)
Department of Energy (DOE)
Department of Environment and Natural Resources (DENR)
DENR - River Basin Control Office (DENR-RBCO)
Department of Health (DOH)
Department of Tourism (DOT)
Department of the Interior and Local Government (DILG)

Department of Public Works and Highways (DPWH)
Local Water Utilities Administration (LWUA)
Metro Manila Development Authority (MMDA)
Metropolitan Waterworks and Sewerage System (MWSS)
National Anti-Poverty Commission (NAPC)
National Irrigation Administration (NIA)
Philippine Association of Water Districts (PAWD)
UP - National Hydraulic Research Center (UP-NHRC)

SUBCHAPTER 13.1: ENSURE PEACE AND SECURITY

Chair: Department of National Defense (DND)

Member Agencies:

National Security Council (NSC)	Commission on Human Rights (CHR)
Department of the Interior and Local Government (DILG)	Dangerous Drugs Board (DDB)
Department of Information and Communications Technology (DICT)	Anti-Terrorism Council - Project Management Center
National Coast Watch Council Secretariat	Philippine Statistics Authority (PSA)
Philippine Center for Transnational Crimes	Bureau of Fire Protection (BFP)
Office of the Presidential Adviser on Peace, Reconciliation and Unity (OPAPRU)	Armed Forces of the Philippines (AFP)
Philippine National Police (PNP)	Philippine Coast Guard (PCG)
Department of Foreign Affairs (DFA)	BARMM-Bangsamoro Planning and Development Authority

SUBCHAPTER 13.2: ENHANCE ADMINISTRATION OF JUSTICE

Chair: Supreme Court (SC)

Co-Chair: Department of Justice (DOJ)

Member Agencies:

Department of Interior and Local Government (DILG)	DOJ - Public Attorneys Office (PAO)
Commission on Human Rights (CHR)	DOJ - Office for Alternative Dispute Resolution (OADR)
DILG - Bureau of Jail Management and Penology (BJMP)	DILG - Philippine National Police (PNP)
DOJ - Bureau of Corrections (BuCor)	Dangerous Drugs Board (DDB)

CHAPTER 14: PRACTICE GOOD GOVERNANCE AND IMPROVE BUREAUCRATIC EFFICIENCY

Chair: Department of Budget and Management (DBM)

Vice Chair: Department of the Interior and Local Government (DILG)

Member Agencies:

Anti-Red Tape Authority (ARTA)
Civil Service Commission (CSC)
Commission on Audit (COA)
Development Academy of the Philippines (DAP)
Department of Information and Communications Technology (DICT)
Governance Commission for GOCCs (GCG)
National Economic and Development Authority (NEDA)
Office of the Ombudsman (OMB)
Union of Local Authorities of the Philippines (ULAP)

Resource Agencies:

Career Executive Service Board (CESB)
Commission on Elections (COMELEC)
House of Representatives (HoR)
Philippine Statistics Authority (PSA)
Senate of the Philippines (Senate)

CHAPTER 15: ACCELERATE CLIMATE ACTION AND STRENGTHEN DISASTER RESILIENCE

Chair: Department of Environment and Natural Resources (DENR)

Member Agencies:

Department of Budget and Management (DBM)	Philippine Statistics Authority (PSA)
Department of the Interior and Local Government (DILG)	Department of Public Works and Highways (DPWH)
Department of Science and Technology (DOST)	Securities and Exchange Commission (SEC)
Philippine Institute for Development Studies (PIDS)	Department of Labor and Employment (DOLE)
Climate Change Commission (CCC)	Department of Human Settlements and Urban Development (DHSUD)

Department of Agriculture (DA)
 Department of Energy (DOE)
 Department of Tourism (DOT)
 Department of Transportation (DOTr)
 Office of Civil Defense (OCD)
 Department of Finance (DOF)
 Department of Trade and Industry (DTI)

Bangko Sentral ng Pilipinas (BSP)
 Philippine Space Agency (PhilSA)
 Insurance Commission (IC)
 Senate Economic Planning Office (SEPO)
 HoR - Congressional Policy and Budget Research Department
 (HoR - CPBRD)

PLANNING COMMITTEE ON CULTURE AND VALUES

Chair: National Commission on Culture and Arts (NCCA)

Member Agencies:

Commission on Higher Education (CHED)
 Department of Education (DepEd)
 Department of Tourism (DOT)
 DTI - Design Center of the Philippines
 Film Development Council of the Philippines (FDCP)
 Movie and Television Review and Classification Board (MTRCB)

National Commission on Indigenous Peoples (NCIP)
 National Commission on Muslim Filipinos (NCMF)
 Office of the Press Secretary (OPS)
 Technical Education and Skills Development Authority (TESDA)
 National Economic and Development Authority (NEDA)

PLANNING COMMITTEE ON GENDER AND DEVELOPMENT

Chair: Philippine Commission on Women (PCW)

Member Agencies:

Bangko Sentral ng Pilipinas (BSP)
 Department of Agrarian Reform (DAR)
 Department of Agriculture (DA)
 Department of Education (DepEd)
 Department of Environment and Natural Resources (DENR)
 Department of Finance (DOF)
 Department of Health (DOH)
 Department of Human Settlements and Urban Development (DHSUD)
 Department of Justice (DOJ)

Department of Labor and Employment (DOLE)
 Department of Migrant Workers (DMW)
 Department of National Defense (DND)
 Department of Public Works and Highways (DPWH)
 Department of Science and Technology (DOST)
 Department of Social Welfare and Development (DSWD)
 Department of Trade and Industry (DTI)
 National Economic and Development Authority (NEDA)
 Philippine Competition Commission (PCC)

PLANNING COMMITTEE ON MIGRATION AND DEVELOPMENT

Chair: Department of Migrant Workers (DMW)

Member Agencies:

Bangko Sentral ng Pilipinas (BSP)
 Union of Local Authorities of the Philippines (ULAP)
 Commission on Filipinos Overseas (CFO)
 Overseas Filipino Bank (OFBank)
 Commission on Higher Education (CHED)
 Overseas Workers Welfare Administration (OWWA)
 Council for the Welfare of Children (CWC)
 Philippine Commission on Women (PCW)
 DFA - Office of Migrant Workers Affairs (DFA-OUMWA)
 Philippine Health Insurance Corporation (PhilHealth)
 DOJ - Inter-Agency Council Against Trafficking (DOJ-IACAT)
 DOT - Philippine Retirement Authority (DOT-PRA)
 Department of Labor and Employment (DOLE)

Department of Science and Technology (DOST)
 Professional Regulation Commission (PRC)
 Department of Social Welfare and Development (DSWD)
 Social Security System (SSS)
 Technical Education and Skills Development Authority (TESDA)
 Home Development Mutual Fund (Pag-IBIG)
 Department of Trade and Industry (DTI)
 Department of Health (DOH)
 National Economic and Development Authority (NEDA)
 Department of Interior and Local Government (DILG)
 DOJ - Bureau of Immigration (DOJ-BI)
 Philippine Institute for Development Studies (PIDS)
 Philippine Statistics Authority (PSA)

TECHNICAL WORKING GROUP ON POPULATION AND DEVELOPMENT

Chair: Commission on Population and Development (POPCOM)

Member Agencies:

National Economic and Development Authority (NEDA)
Philippine Institute of Development Studies (PIDS)
Philippine Statistics Authority (PSA)

UP Population Institute (UPPI)
United Nations Population Fund (UNFPA)

TECHNICAL WORKING GROUP ON CHILDREN'S RIGHTS

Chair: Council for the Welfare of Children (CWC)

Co-Chairs: National Economic and Development Authority (NEDA)

United Nations Children's Fund (UNICEF)

Member Agencies:

National Youth Commission (NYC)
Early Childhood Care and Development Council (ECCDC)
Department of Social Welfare and Development (DSWD)

DSWD - Juvenile Justice and Welfare Council (DSWD-JJWC)
National Nutrition Council

DBCC SUB-COMMITTEE ON THE SUSTAINABLE DEVELOPMENT GOALS

Chair: National Economic and Development Authority

Co-Chair: Department of Budget and Management

Member Agencies:

Climate Change Commission (CCC)
Department of Agriculture (DA)
Department of Agrarian Reform (DAR)
Department of Environment and Natural Resources (DENR)
Department of Foreign Affairs (DFA)
Department of Education (DepEd)
Department of Human Settlements and Urban Development (DHSUD)
Department of Information and Communications Technology (DICT)
Department of the Interior and Local Government (DILG)
Department of Energy (DOE)
Department of Finance (DOF)
Department of Health (DOH)
Department of Labor and Employment (DILG)
Department of Science and Technology (DOST)

Department of Transportation (DOTr)
Department of Social Welfare and Development (DSWD)
Department of Trade and Industry (DTI)
House of Representatives (HOR)
National Nutrition Council (NNC)
Office of Civil Defense (OCD)
Philippine Commission on Women (PCW)
Philippine Institute for Development Studies (PIDS)
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Philippine Statistical Research and Training Institute (PSRTI)
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