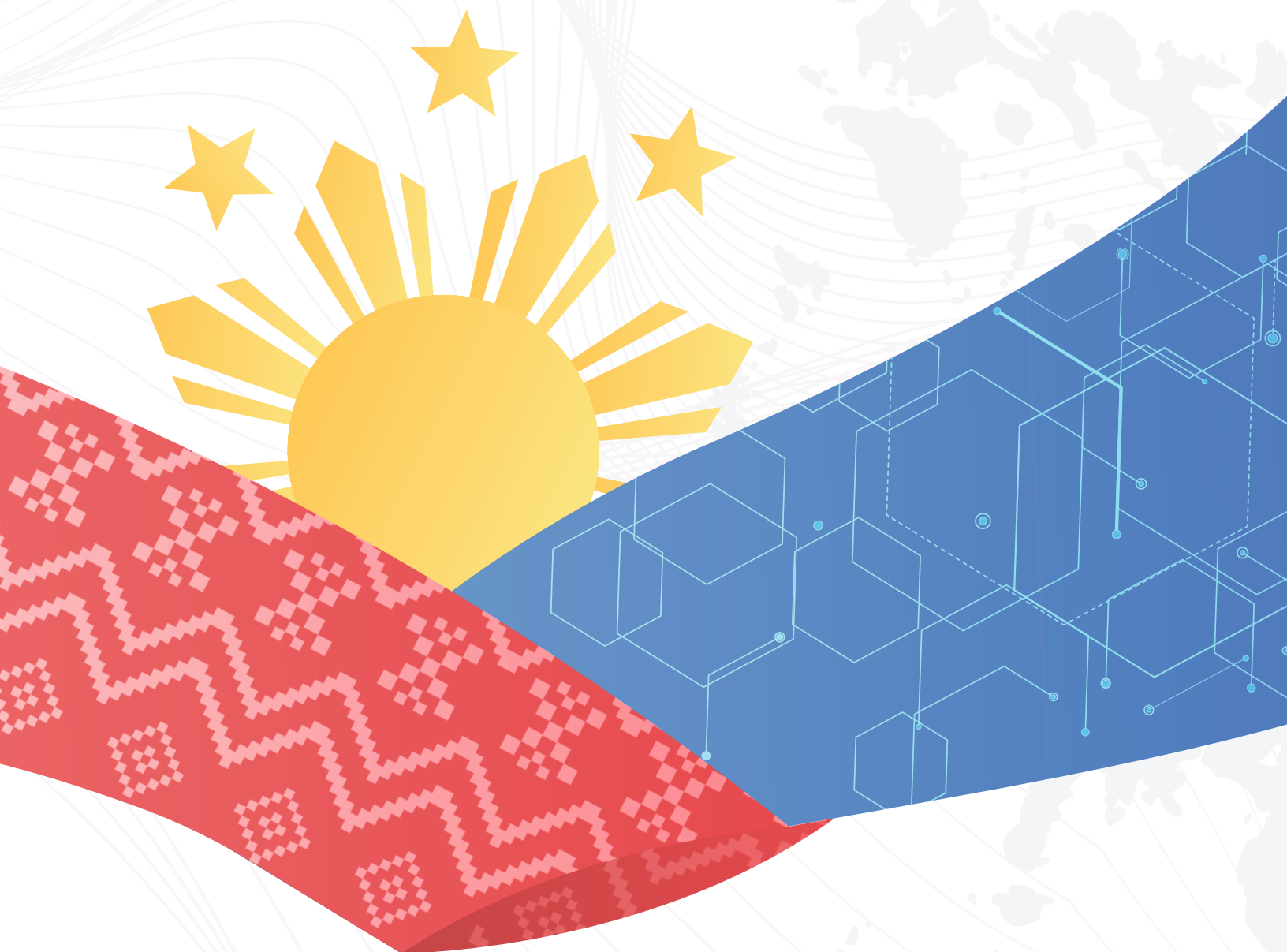




PHILIPPINE DEVELOPMENT PLAN

2 0 2 3 - 2 0 2 8





***Philippine
Development Plan
2023-2028***

Table of Contents

Foreword	xvi
Preface	xviii
PART I: INTRODUCTION	1
A Plan for Economic and Social Transformation	5
Health and Social Trends	9
Continued impact of COVID-19	9
China's dynamic Zero-COVID Policy	9
Aging global population	9
Increasing demand for health care workers	9
Economic Trends	10
Headwinds in global economic recovery	10
Geopolitical Trends	11
Ongoing international tensions	11
Shifts in Asian investments and manufacturing	11
Environmental Trends	12
Technology and Regulations	12
Rapid digitalization across the globe	12
Global megatrends for 2030	13
Philippine Development Plan (PDP) 2023-2028	14
The underlying theme of PDP 2023–2028 is transformation...	14
...that is integral in all the strategies of the PDP.	17
We commit to the following target outcomes over the medium term...	22
...by adopting a whole-of-society approach.	24
PART II: DEVELOP AND PROTECT CAPABILITIES OF INDIVIDUALS AND FAMILIES	27
Promote Human and Social Development	31
Subchapter 2.1 Boost Health	31
Assessment and Challenges	32
Strategy Framework	34
Strategies	36
Outcome 1: Social determinants of health improved	36
Outcome 2: Healthy choices and behavior enabled	36
Outcome 3: Access, quality, and efficiency of health care improved	37

Outcome 4: Health systems strengthened	39
Legislative Agenda	41
Results Matrix	42
Subchapter 2.2 Improved 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	58
Strategies	59
Outcome 1: Social environment promoted	59
Outcome 2: Environmental quality improved	61
Outcome 3: Built environment upgraded	63
Outcome 4: Responsive governance advanced	65
Legislative Agenda	67
Results Matrix	68
Reduce Vulnerabilities and Protect Purchasing Power	73
Subchapter 3.1 Ensure Food Security and Proper Nutrition	73
Assessment and Challenges	73
Strategy Framework	76
Strategies	76
Outcome 1: Sufficient and stable supply of food commodities attained	76
Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded	78
Outcome 3: Nutrition across all ages improved	80
Legislative Agenda	82
Results Matrix	83

Subchapter 3.2 Strengthen Social Protection	84
Assessment and Challenges	84
Strategy Framework	87
Strategies	88
Outcome 1: A universal, modern, and integrated social protection system achieved	88
Outcome 2: Individual and life cycle risks mitigated	90
Outcome 3: Economic risks managed	92
Outcome 4: Natural, health, climate, and other human-induced hazards mitigated	92
Outcome 5: Governance and political risks addressed	94
Legislative Agenda	94
Results Matrix	95
Increase Income-earning Ability	101
Assessment and Challenges	101
Strategy Framework	103
Strategies	103
Outcome 1: Employability increased	103
Outcome 2: Access to employment opportunities expanded	107
Outcome 3: Shared labor market governance achieved	110
Legislative Agenda	113
Results Matrix	113
PART III: TRANSFORM PRODUCTION SECTORS TO GENERATE MORE QUALITY JOBS AND COMPETITIVE PRODUCTS	117
Modernize Agriculture and Agribusiness	121
Assessment and Challenges	121
Strategy Framework	125
Strategies	125
Outcome 1: Efficiency of AFF production enhanced	125
Outcome 2: Access to markets and AFF-based enterprises expanded	127
Outcome 3: Resilience of AFF value chains improved	129
Outcome 4: Agricultural institutions strengthened	131
Legislative Agenda	132
Results Matrix	133
Revitalize Industry	137
Assessment and Challenges	137
Strategy Framework	139

Strategies	140
Outcome 1: Domestic market production and supplier base expanded	140
Outcome 2: Moving up the value chain achieved	143
Outcome 3: Inter-sectoral linkages enhanced	150
Legislative Agenda	153
Results Matrix	154
Reinvigorate Services	161
Assessment and Challenges	161
Strategy Framework	163
Strategies	164
Outcome 1: Market expansion achieved	164
Outcome 2: Creativity and innovation in services value proposition strengthened	167
Outcome 3: Inter-sectoral linkages enhanced	170
Legislative Agenda	172
Results Matrix	173
Advance Research and Development, Technology, and Innovation	177
Assessment and Challenges	177
Strategy Framework	179
Strategies	180
Outcome 1: Basic R&D and knowledge creation strengthened	180
Outcome 2: Market-driven and customer-centered research and development advanced	181
Outcome 3: Technology extension, adoption, utilization, and commercialization scaled-up	183
Outcome 4: Innovation and entrepreneurship accelerated	184
Legislative Agenda	186
Results Matrix	187
Promote Trade and Investments	191
Assessment and Challenges	191
Strategy Framework	194
Strategies	195
Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened	195
Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability	198
Legislative Agenda	200
Results Matrix	201

Promote Competition and Improve Regulatory Efficiency	205
Assessment and Challenges	205
Strategy Framework	209
Strategies	210
Outcome 1: Anticompetitive practices diminished	210
Outcome 2: Barriers to entry and re-entry reduced	212
Outcome 3: Burden of regulation reduced	213
Cross-cutting Strategies	215
Adopt a whole-of-government approach to strengthen market competition	215
Promote Competition and improve regulatory efficiency in and through the internet and digital technologies	217
Legislative Agenda	219
Results Matrix	220
PART IV: ENABLING ENVIRONMENT	223
Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance	227
Subchapter 11.1 Promote an Inclusive, Innovative, and Healthy Financial Sector	227
Assessment and Challenges	227
Strategy Framework	230
Strategies	231
Outcome 1: Financial inclusion broadened and deepened	231
Outcome 2: Financial innovation strengthened and accelerated	232
Outcome 3: Financial sector health ensured	234
Cross-cutting strategies	234
Legislative Agenda	237
Results Matrix	238
Subchapter 11.2 Ensure Sound Fiscal Management and Improve the Tax Regime	239
Assessment and Challenges	239
Strategy Framework	240
Strategies	241
Outcome 1: A productive, equitable, and simple tax system established and other sources of revenues mobilized	241
Outcome 2: An efficient and inclusive budget system implemented	244
Outcome 3: Local government finance strengthened	245
Outcome 4: Sustainable management of debt ensured	246
Legislative Agenda	247

Results Matrix	248
Expand and Upgrade Infrastructure	253
Assessment	253
Connectivity	253
Water Resources	256
Energy	257
Social Infrastructure	260
Challenges	261
Connectivity	262
Water Resources	264
Energy	265
Social Infrastructure	266
Strategy Framework	267
Strategies	268
Planning, programming, and asset management in infrastructure enhanced	268
Connectivity	269
Seamless and inclusive connectivity via local and international linkages achieved	269
Water Resources	273
Water security, ecological integrity of water systems, and resiliency to water hazards attained	273
Energy	276
Affordable, accessible, reliable, and clean energy provided	276
Social Infrastructure	281
Enhanced support to social development provided	281
Legislative Agenda	283
Results Matrix	285
Ensure Peace and Security and Enhance Administration of Justice	293
Subchapter 13.1 Ensure Peace and Security	293
Strategy Framework	296
Strategies	297
Outcome 1: Conflict-affected communities and conflict-vulnerable areas protected and development sustained	297
Outcome 2: Quality of life of people safeguarded from criminality	299
Outcome 3: Protection and safety from natural hazards and other security threats ensured	300
Outcome 4: Territorial integrity and sovereignty upheld and protected	301
Cross-cutting Strategies	302

Legislative Agenda	303
Results Matrix	304
Subchapter 13.2 Enhance Administration of Justice	305
Assessment and Challenges	305
Strategy Framework	307
Strategies	308
Outcome 1: Quality and efficiency in disposition of cases improved	308
Outcome 2: Access to quality free or affordable legal services by Filipinos improved	311
Outcome 3: Quality of life of PDL improved, and productive re-integration of PDL in the community ensured	313
Legislative Agenda	314
Results Matrix	315
Practice Good Governance and Improve Bureaucratic Efficiency	321
Assessment and Challenges	321
Strategy Framework	323
Strategies	324
Outcome 1: Participatory governance deepened	324
Outcome 2: Public accountability and integrity bolstered	325
Outcome 3: Government functions, systems, and mechanisms rationalized and strengthened	327
Outcome 4: Competent, motivated, agile, and resilient public servants supported	329
Legislative Agenda	330
Results Matrix	331
Accelerate Climate Action and Strengthen Disaster Resilience	337
Assessment and Challenges	337
Strategy Framework	340
Strategies	341
Outcome 1: Climate and disaster risk resilience of communities and institutions increased	341
Outcome 2: Ecosystem resilience enhanced	343
Outcome 3: Low carbon economy transition enabled	344
Cross-cutting Strategy: Governance and intersectionality of climate change and natural hazard resilience improved	347
Legislative Agenda	349
Results Matrix	350

PART V: PLAN IMPLEMENTATION, MONITORING, AND EVALUATION	353
Plan Implementation, Monitoring, and Evaluation	357
Implementation	357
Monitoring and Evaluation	359
Evaluation Agenda for the Philippine Development Plan 2023–2028	360
Acronyms	365
Glossary	381
Plan Steering Committee (PSC)	425
Members	425
Advisory Committee Members	427
Editorial Team	429
Planning Committees	431
Drafting Team	459
PDP Drafting Team/Consultants	459
NEDA Chapter Focal	461
Development Information Staff	471
Managing Editor	471
Production Editors	471
Graphics, design, and layout	471
Overall Plan Secretariat	473

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	65
Table 2.3.1 Legislative Agenda to Establish Livable Communities	67
Table 2.3.2 Results Matrix: Establish Livable Communities	68

CHAPTER 3

Figure 3.1 Strategy Framework to Ensure Food Security and Proper Nutrition	76
Table 3.1.1 Legislative Agenda to Ensure Food Security and Proper Nutrition	82
Table 3.1.2 Results Matrix: Ensure Food Security and Proper Nutrition	83
Table 3.2.1 Social Protection Coverage and Expenditure in Selected Countries	85
Table 3.2.2 Estimate of social protection coverage among households in the Philippines, 2017, 2019, and 2020	85
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 (%)	86
Figure 3.2.2 Strategy Framework to Strengthen Social Protection	87
Table 3.2.3 Legislative Agenda to Strengthen Social Protection	94
Table 3.2.4 Results Matrix: Strengthening Social Protection	95

CHAPTER 4

Figure 4.1 Strategy Framework to Increase Income-earning Ability	103
Table 4.1 Legislative Agenda to Increase Income-Earning Ability	113
Table 4.2 Results Matrix: Increase the Income-Earning Ability	113

CHAPTER 5

Figure 5.1 Strategy Framework to Modernize Agriculture and Agribusiness	125
Table 5.1.1 Legislative Agenda to Modernize Agriculture and Agribusiness	132
Table 5.1.2 Results Matrix: Modernize Agriculture and Agribusiness	133

CHAPTER 6

Figure 6.1 Strategy Framework to Revitalize Industry	139
Box 6.1. Cluster-based Approach to Industrialization	151
Table 6.1 Legislative Agenda to Revitalize Industry	153
Table 6.2 Results Matrix: Revitalize Industry	154

CHAPTER 7

Figure 7.1 Strategy Framework to Reinvigorate Services	163
Table 7.1 Legislative Agenda to Reinvigorate Services	172
Table 7.2 Results Matrix: Reinvigorate Services	173
Endnotes	174

CHAPTER 8

Figure 8.1 Global Innovation Index Rank in Sub-Index Related to Knowledge Creation	178
Figure 8.2 Strategy Framework to Advance Research and Development, Technology, and Innovation	179
Box 8.1. (<i>Pagtanaw</i> 2050: The Philippine science, technology, innovation foresight)	181
Table 8.1 Legislative Agenda to Advance R&D, Technology, and Innovation	186

CHAPTER 9

Figure 9.1 Philippine export and foreign direct investment performance relative to the Association of Southeast Asian Nations, 2000–2020 (USD billion)	191
Figure 9.2 Philippine Product Dynamics: New Entry and Permanent Exit of Export Products, 1996–2019	193
Figure 9.3 Strategy Framework to Promote Trade and Investments	194
Table 9.1 Legislative Agenda to Promote of Trade and Investments	200
Table 9.2 Results Matrix: Promote Trade and Investments	201

CHAPTER 10

Figure 10.1 Strategy Framework to Promote Competition and Improve Regulatory Efficiency	209
Box 10.1. Whole-of-Government Approach to Competition	216
Table 10.1 Legislative Agenda to Promote Competition and Improve Regulatory Efficiency	219
Table 10.2 presents the indicators and targets during the Plan period to promote promote competition and improve regulatory efficiency.	220
Table 10.2 Results Matrix: Promote Competition and Improve Regulatory Efficiency	220

CHAPTER 11

Figure 11.1.1 Strategy Framework to Promote an Inclusive, Innovative, and Healthy Financial Sector	230
Table 11.1.1 Legislative Agenda to Promote an Inclusive, Innovative, and Healthy Financial Sector	237
Table 11.1.2 Results Matrix: Promote an Inclusive, Innovative, and Healthy Financial Sector	238
Figure 11.2.1 Strategy Framework to Ensure Sound Fiscal Management and Improve the Tax Regime	240
Table 11.2.1 Legislative Agenda to Ensure Sound Fiscal Management and Improve the Tax Regime	247
Table 11.2.2 Results Matrix: Ensure Sound Fiscal Management and Improve the Tax Regime	248

CHAPTER 12

Table 12.1 Key Economic and Energy Indicators in Select Countries	258
Figure 12.1 Strategy Framework to Expand and Upgrade Infrastructure	267
Table 12.2 Legislative Agenda to Expand and Upgrade Infrastructure	283
Table 12.3 Results Matrix: Expand and Upgrade Infrastructure	285

CHAPTER 13

Figure 13.1.1 Strategy Framework to Ensure Peace and Security	297
Table 13.1.2. Results Matrix: Ensure Peace and Security	304
Figure 13.2.1 Strategy Framework to Enhance Administration of Justice	307
Box 13.2.1 The National Justice Information System and the Criminal Justice Information Exchange	310
Table 13.2.1. Legislative Agenda to Enhance Administration of Justice	314
Table 13.2.2. Results Matrix: Enhance Administration of Justice	315

CHAPTER 14

Figure 14.1 Philippines' Score in Selected International Governance Indices, 2011–2021	322
Figure 14.2 Strategy Framework to Practice Good Governance and Improve Bureaucratic Efficiency	323
Table 14.1 Legislative Agenda to Practice Good Governance and Improve Bureaucratic Efficiency	330
Table 14.2 Results Matrix: Practice Good Governance and Improve Bureaucratic Efficiency	331

CHAPTER 15

Figure 15.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience	341
Table 15.1 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience	349
Table 15.2 Results Matrix to Accelerate Climate Action and Strengthen Disaster Resilience	350

CHAPTER 16

Table 16.1 Coordination Mechanism	358
Figure 16.1 Evaluation and the Public Sector Management Cycle	361

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.

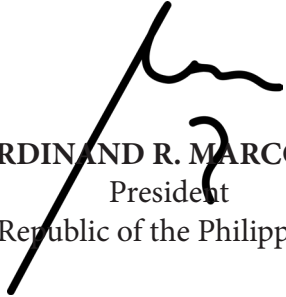
We will reduce poverty to a single-digit level by 2028. This will be realized through rapid, sustained, and inclusive growth that will create more, better, and resilient jobs. Stable prices and prudent fiscal management, as well as an enabling regulatory and policy environment will support our economic 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 action and strengthening disaster resilience (Chapter 15).

Interspersed between the chapters are cross-cutting strategies which include accelerating 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). As the government's development policy coordination body, NEDA, in

partnership with various agencies and the private sector, shall submit to the President regular and special reports assessing the status and impact of the Plan implementation and recommending measures to enhance performance moving forward.

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.

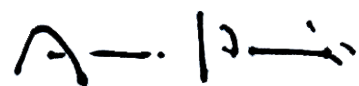
Special thanks are due to the World Bank, particularly Country Director Ndiame Diop, who offered evidenced-based policy notes on many thematic areas, and the Asian Development Bank, notably Country Director Kelly Bird, as well as the USAID, which mobilized experts and consultants to assist the NEDA team 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., Miharuy 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.

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

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 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 (RTLA), 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 November 4, 2022, registration to PhilSys has reached 74.7 million individuals, which is 81.2 percent of the target 92 million individuals. Nearly 48 million PhilSys numbers have been generated, 23.7 million ID cards printed, and 18.7 million ID 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. 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 United States (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 (GVCs) 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

Philippine Development Plan (PDP) 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 tackle 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; 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.

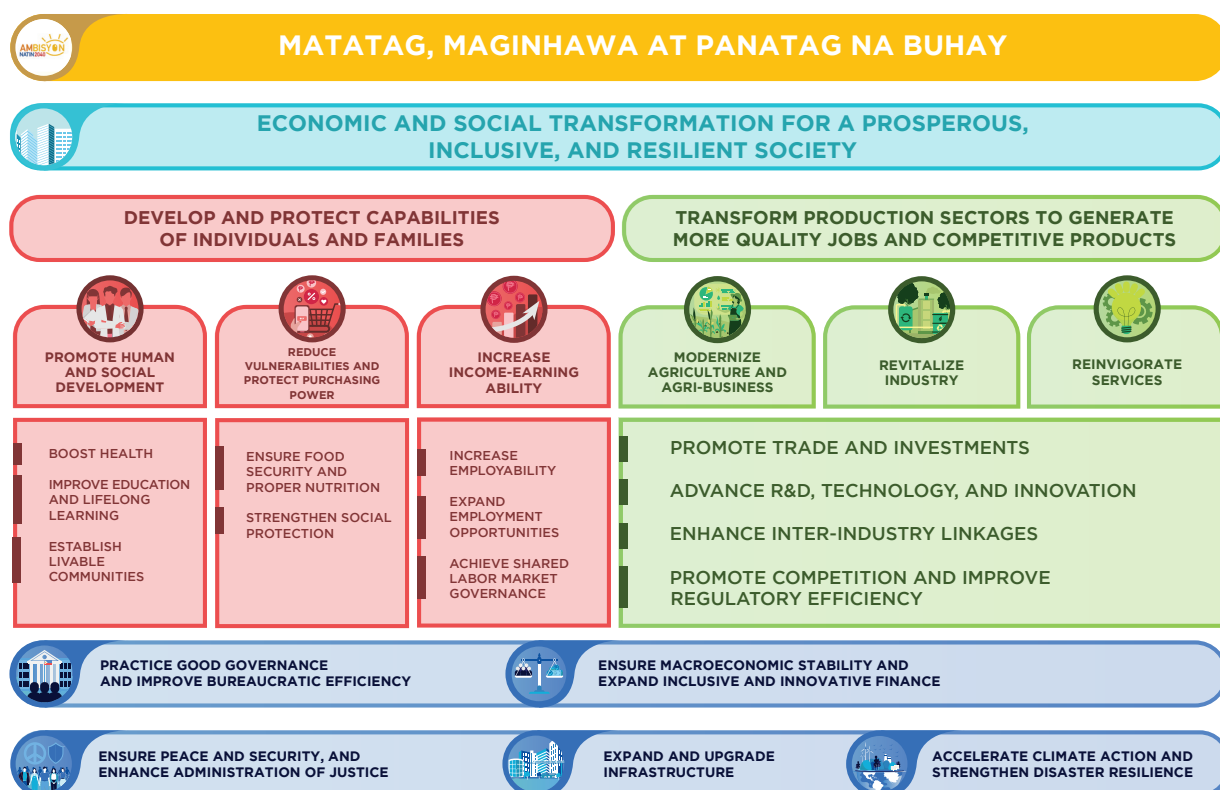
- **Partnership with the private sector.** There are multiple areas to expand the role of the private sector to deliver more benefits to the public. The government’s role is to provide calibrated incentives to priority industries and foster an enabling business environment to allow job-generating businesses 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.

- **Social development will be pursued through livable communities (Subchapter 2.3).** For communities still to be established, access to human, social, and economic development opportunities will be facilitated by design. Simultaneously, there will be programs to upgrade the conditions in existing communities where these are found to be inadequate.

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).** There will be programs to reduce the risks faced by specific vulnerable groups (persons with disability, women, children, indigenous persons, persons in geographically isolated and disadvantaged areas [GIDA], migrant workers, etc.), and to mitigate the impact in case the risk materializes. A universal, modern, and integrated SP system will be established 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 research and development, 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 and (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 GIDAs) 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 4.0–5.0 percent, and the percentage of wage and salary workers in private establishments to total employed is within 53–55 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 social protection system.

Keep food and overall prices low and stable. Food and overall inflation will be kept

within 2.0–4.0 percent. This will then reduce subsistence incidence to 2.5–3.5 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) (growth rate, %) increased	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
Percent 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 (% of population) reduced	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, 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.

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.

This chapter presents the challenges facing health 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.

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 2015–2020 relative to 2010–2015, 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

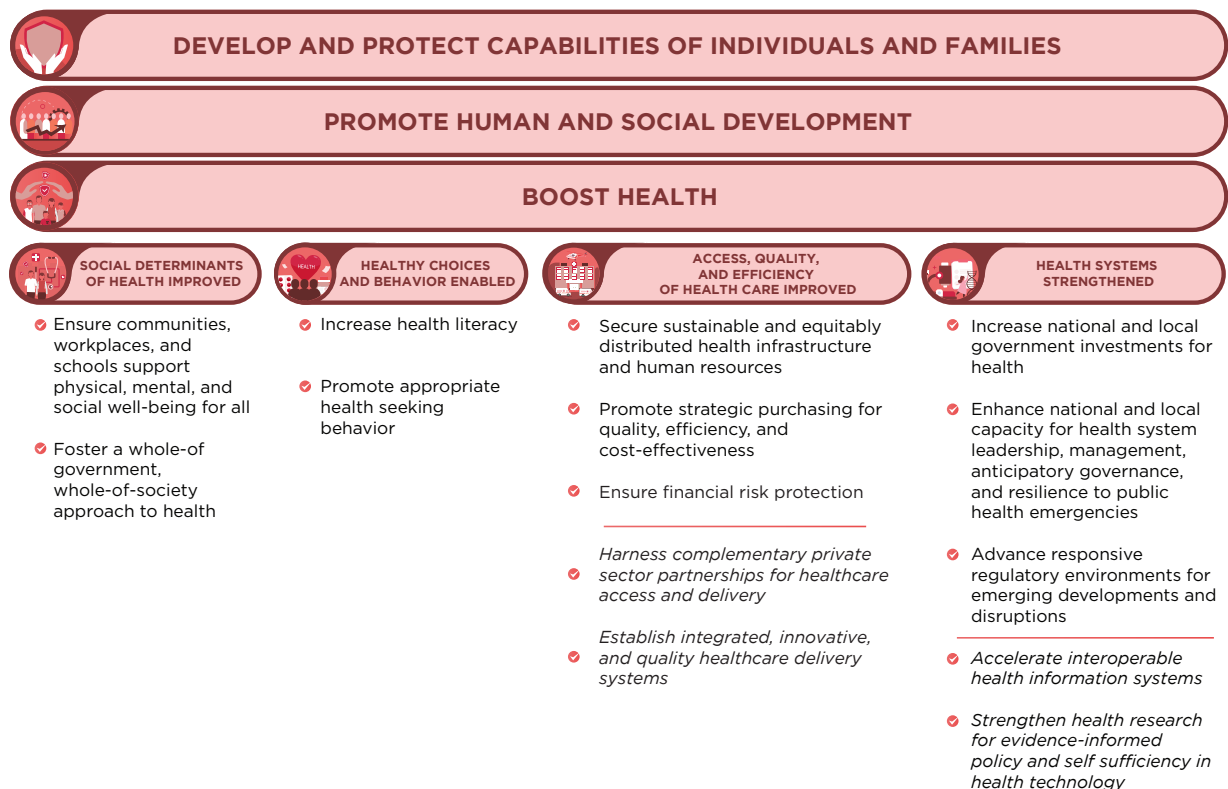
environment, and health-related behaviors account for 80 to 90 percent of modifiable contributors to population health

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 healthcare 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, 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 (ENNS)	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

* The targets will be based on the EO 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 Improved Education and Lifelong Learning

By 2028, Filipinos are 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 shall 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) 2020/21, 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 (See Figure 2.2).

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 (OER), 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 (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.

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 the support of 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, e.g., 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 (ICT). This includes augmented reality, virtual reality, and Internet of Things (IoT). 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 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 (4IR), 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

Local government units, 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 (MRA) 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 will 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, Commission on Higher Education [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 towards 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 (TSS) 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.	Technical Education and Skills Development Authority (TESDA)
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 R&D and innovation (See Chapter 8).		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
4. Licensure examination passing rate									

INDICATOR	BASELINE (2021)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
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

By 2028, 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, making 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 civil society organization (CSO) representation in the barangay development councils. Moreover, only 14,000 barangay-based non-government organizations (NGO) were accredited. Some LGUs have not fully implemented the Department of the Interior and Local Government (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 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 from 2017–2020, which is indicative of unaffordability. From 2001 to 2018, around 10.16 percent of the housing supply has gone to the socialized

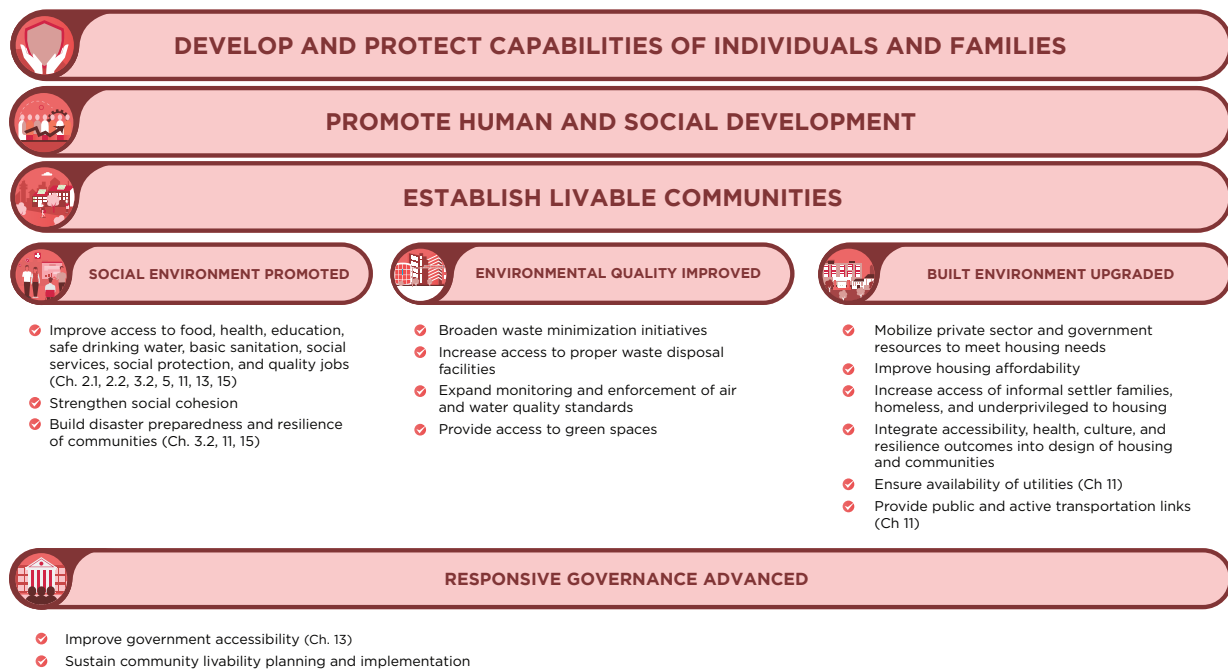
segment, and the shares have been decreasing.⁴² Housing production faced major challenges in terms of low allocation and utilization of funding, lack of suitable land, and delays in permits and clearances. The National Housing Authority (NHA), the government's housing production arm, has a mean budget 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 refillingsystems, 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, Socialized 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

Local government units 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 Plan⁴⁶ adopted for on-site, in-city, and near city resettlement programs to address the urban sprawl shall be broadened to improve livability elements.⁴⁷

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 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 Key Shelter Agencies National Housing Authority (NHA) Act Amendments to the National Home Mortgage Finance Corporation Charter	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	Prevention and control of 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). Immunization gaps contribute to rising measles cases in the Philippines. Accessed 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 <https://www.unicef.org/philippines/building-confidence-routine-immunization-philippines>
- ⁷ Institute for Health Metrics and Evaluation. (2020, December 10). 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. Impact of COVID-19 Pandemic to the Philippine HIV Epidemic. Accessed from: doh.gov.ph/sites/default/files/publications/2020%20Annual%20HIV%20Report.pdf
- ¹⁰ Frontiers. Philippine Mental Health Act - A Call to Look Into the Bi-directionality of Mental Health and Economy. Accessed from: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.706483/full>
- ¹¹ PAGASA. Climate Change in the Philippines. Accessed from: <https://www.pagasa.dost.gov.ph/information/climate-change-in-the-philippines>
- ¹² Climate Adaptation Platform. Climate Change Impacts on health, and livelihood of Filipinos. Accessed 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 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. <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. Accessed 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. Accessed 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 ability 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. Source: World Bank Database, <https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=PH>
- ²⁸ World Bank. "The State of Global Learning Poverty: 2022 Update", 2022. <https://thedocs.worldbank.org/en/doc/e52f5322528903b27f1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf> (accessed November 14, 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. <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 Times Higher Education, "World University Rankings 2023 Digital Report". October 12, 2022. <https://flipbooks.timeshighereducation.com/19712/79124/index.html?37303>
- ³² CHED, "Ateneo, UP lead 10 Philippine HEIs joining THE World University Rankings", CHED Website. October 12, 2022. <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 2022. Francis Atwil, et.al. World Risk Report 2022. Bündnis Entwicklung Hilft and Ruhr University Bochum. Aachen, Germany
- ⁴⁰ 2022. INFORM. 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 2019. DENR in National Tax Regulation Council (NTRC) Regulation on the Use of Plastic Bags in the Philippines and Other Countries. NTRC Tax Research Journal. September-October 2019
- ⁴² Clearing the Housing Backlog: An Updated Supply and Demand Study on ODC Segment. Habitat. <https://www.habitat.org/sites/default/files/documents/Clearing-the-Housing-Backlog.pdf>
- ⁴³ OCD. 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 The People's Plan refers to a community development plan that is comprised of a housing design and site development plan. This Plan may also include non-physical developments (e.g., livelihoods, self-help development, and capability development training, etc.). It is developed through a process of consultation with, and endorsement by, the beneficiaries. A social preparation process is needed to craft a People's Plan. This process includes establishing social and organizational capabilities, norms, and mechanisms. These will enable the settlers to work together and develop their housing resettlement plans. The process is conducted in partnership with concerned institutions and stakeholders. Through this partnership, settlers can actively participate in housing resettlement projects and resolve problems and issues among community members or with the government and other entities. The legal framework of the People's Plan is defined by the Policy Guidelines on the operationalization and utilization of the PHP 50 billion Housing Fund for ISFs in Danger Areas in the National Capital Region (ISF-National Technical Working Group JMC 2013).
- ⁴⁷ Patrick I. Patino. Institute of Popular Democracy. 2016. Building safe and resilient communities against poverty and disaster. Asian Cities Climate Resilience Working Paper Series 29. 2016.
- INFORM. 2022. "Inform Risk Index 2023." Accessed in November 2022. <https://drmkc.jrc.ec.europa.eu/inform-index>
- P. Patino. 2016. Institute of Popular Democracy. "Building safe and resilient communities against poverty and disaster". Asian Cities Climate Resilience Working Paper Series 29: 2016. Accessed in November 2025.
- UN HABITAT. 2021. "Rapid Research on COVID-19 Pandemic to the Urban Poor and Other Vulnerable Groups in the Cities of Ozamiz and Tagum". Accessed in November 2022. https://designingresilience.ph/wp-content/uploads/Resilient-and-Green-Recovery-Research_v2_15June_a.pdf
- WB, DSWD 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". Accessed in November 2022. <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>.
- Padojinog and E. Yap. 2020. Clearing the Housing Backlog: An Updated Supply and Demand Study on Unserved Owner-Driven Construction Segment in the Philippines. Center for Research and Communication Foundation, Inc. and Habitat for Humanity: Terwilliger Center for Innovation in Shelter.

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 Philippine Development Plan (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.

Subchapter 3.1 Ensure Food Security and Proper Nutrition

This chapter presents the challenges in reducing vulnerabilities and protecting purchasing power, including the outcomes to be pursued to address these challenges during the Plan period. It consists of two subchapters with the following outcomes. In subchapter 3.1: (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.

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 2–4 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 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 [NGOs], 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 for 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 of 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	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.	Department of Agriculture (DA), Department of the Interior and Local Government (DILG), Department of Education (DepEd), local government units (LGU), 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, Department of Social Welfare and Development, DepEd, Department of Health (DOH), DA, Department of Trade and Industry (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	National Economic and Development Authority (NEDA) Board, National Nutrition Council (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 within 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		
b. Moderate to severe food insecurity	33.4 (2021)	31.7	30.1	28.5	27.1	25.7	24.4	24.4	Expanded National Nutrition Survey (ENNS)	NNC Governing Board
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 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. Social protection 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. Social protection programs helped mitigate the impact of the COVID-19 pandemic. Specifically, the Social Amelioration Program 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 social protection 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 social

protection 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 social protection (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 & 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 Social Amelioration Program [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 social protection must also account for this diversity.³³

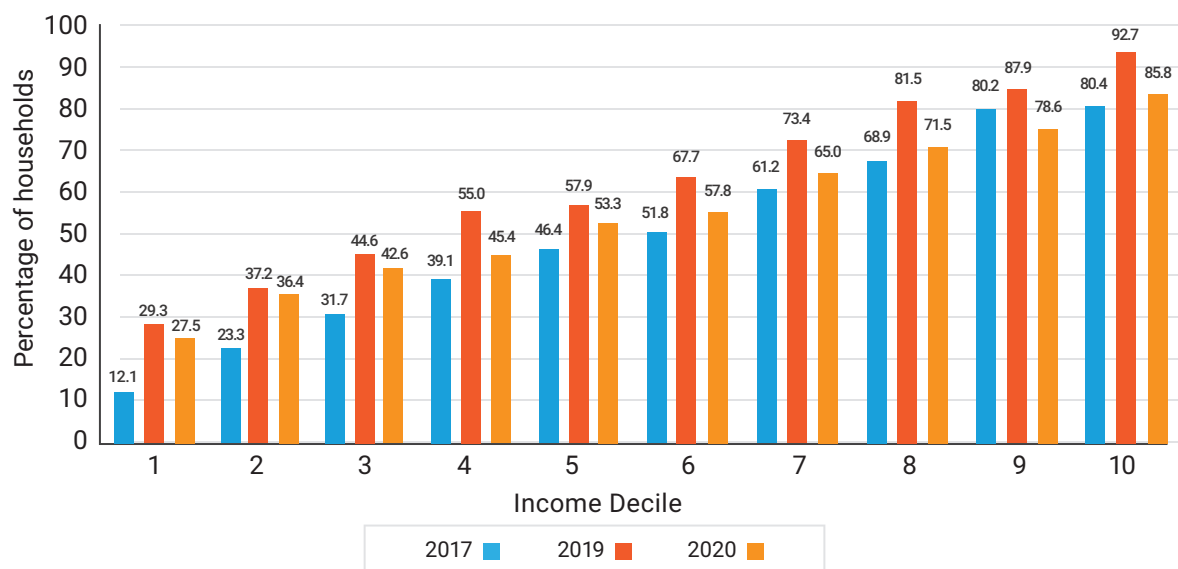
Also in need of special social protection are migrant Filipinos. According to the Department of Foreign Affairs, only 88.9 percent of overseas Filipinos are legally documented, which include temporary or resident-seeking migrants. They need to have proper visas and permits for them

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

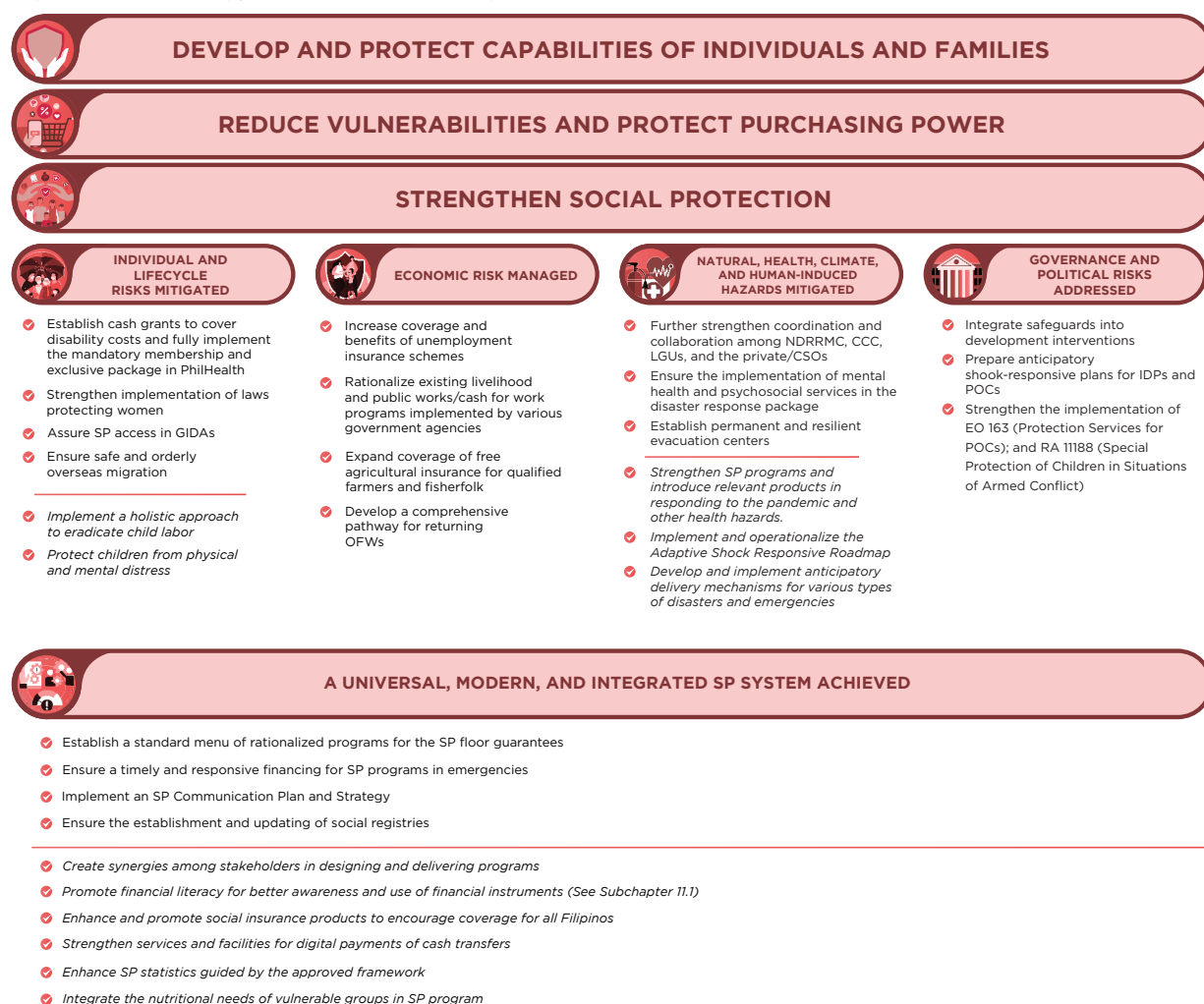
index score of 46.82, the Philippines has the highest disaster risk among 193 countries covered in the World Risk Report 2022. There are also new risks brought about by geopolitical conflicts, technological disruptions from the Fourth Industrial Revolution, and emerging concerns due to changing climate 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.

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.

Integrate the nutritional needs of vulnerable groups in social protection programs

Nutritional concerns shall be considered in the design of social protection 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.

Outcome 2: Individual and life cycle 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) (RA 11288)

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 11288.

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 (GIDAs). 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, 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 Department of Migrant Workers 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 social protection 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 IDPs and persons of concern (POCs) 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 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 of 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 Social Protection 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	Department of Social Welfare and Development and National Economic Development Authority
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

LEGISLATIVE AGENDA	RATIONALE/KEY FEATURES	RESPONSIBLE AGENCY
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	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
	(YEAR)	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									
1. Percentage of families covered with social insurance (%)	83.8 (2020)	100	100	100	100	100	100	Annual Poverty Indicators Survey	Social Security System (SSS), Government Service Insurance System (GSIS), Philhealth, Philippine Crop Insurance Corporation
2. 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)
3. 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
4. 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
5. 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
6.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 Philippine Statistics Authority (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 National Disaster Risk Reduction and Management Council (NDRRMC). This is composed of partner agencies from government, the United Nations, and non-government organizations (NGO), 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 Department of Finance (DOF) and co-chaired by the National Economic and Development Authority (NEDA) with the DSWD, Department of Budget and Management (DBM), Bureau of the Treasury (BTr), and Land Bank of the Philippines (LBP) 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, Department of Health (DOH), Department of Environment and Natural Resources (DENR), Department of Transportation (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.
- 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. Samoza. 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 Sicat, C.J. and M.A. Mariano. 2021. A Public Expenditure Review of Social Protection Programs in the Philippines. Quezon City: Philippine Institute for Development Studies.
- ³² Social Development Services. n.d. "Policy Brief on Modernizing Social Protection." Pasig City: National Economic and Development Authority.

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: National Economic and Development Authority.

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: National Economic and Development Authority.

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, 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

Technical and vocational education and training 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 of 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 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)
Jobs Creation Strategy Bill	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 See 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: Towards Improved Skills Recognition and Mobility. Washington, DC. <https://openknowledge.worldbank.org/entities/publication/40da4689-9f8a-58b6-bac0-5005d6fe03b9>.
- ⁹ See Daquiao. 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 See ILO. 2018. Recognition of Prior Learning (RPL): Learning Package. Geneva.
- ¹³ See 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 See 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 towards 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 towards 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.

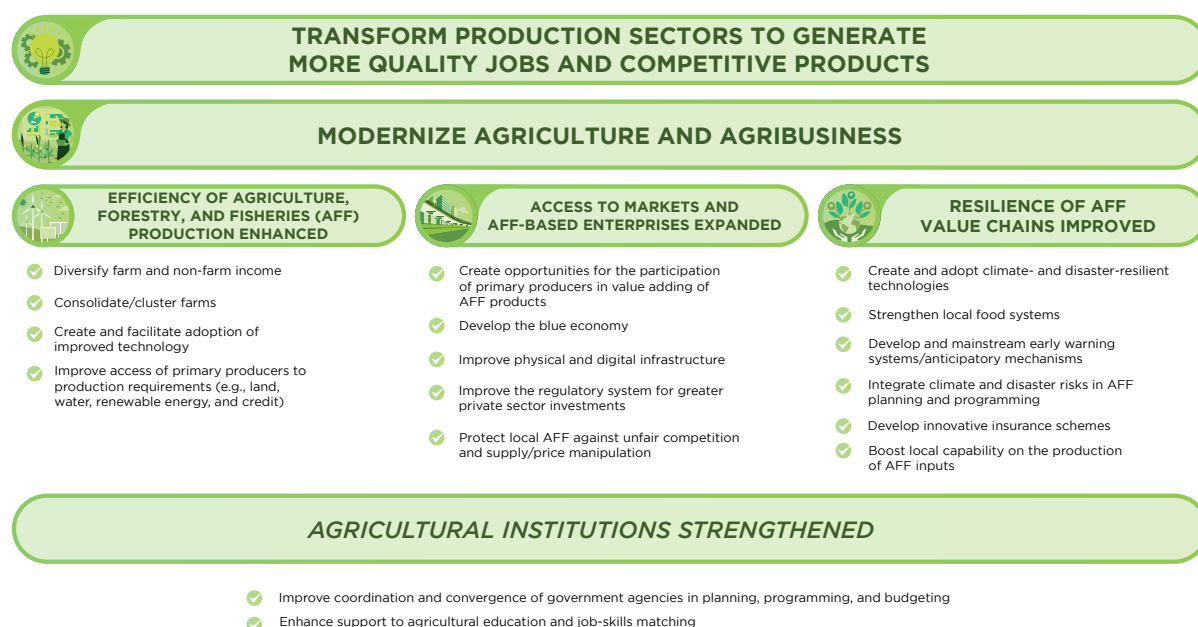
Nevertheless, policy reforms have been enacted to make the sector more resilient and competitive both in the country and abroad. These include the (a) Rice Tariffication Law (RA 11203); (b) Coconut Farmers and Industry Trust Fund Act (RA 11524); (c) *Sagip Saka* Act (RA 11321); (d) Free Irrigation Service 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 of 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 (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 (LBP) 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 LBP to operate as a government financial institution responsible for broad-based agricultural and rural development as well as financial inclusion.	LBP
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 (Republic Act 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	--	Philippine Statistics Authority (PSA)	Department of Agriculture (DA), Department of Agrarian Reform (DAR), local government units (LGU)
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	PSA	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	DA
Level of Mechanization improved									
Rice (hp/ha)	3.77 (2019)	---	---	4.2	---	---	4.6	DA	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	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	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	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	Philippine Crop Insurance Corporation (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 Family Income and Expenditure Survey in the 1st quarter of 2023

- ¹ Based on the data from the Philippine Statistics Authority (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-Philippine Center for Postharvest Development and Mechanization (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

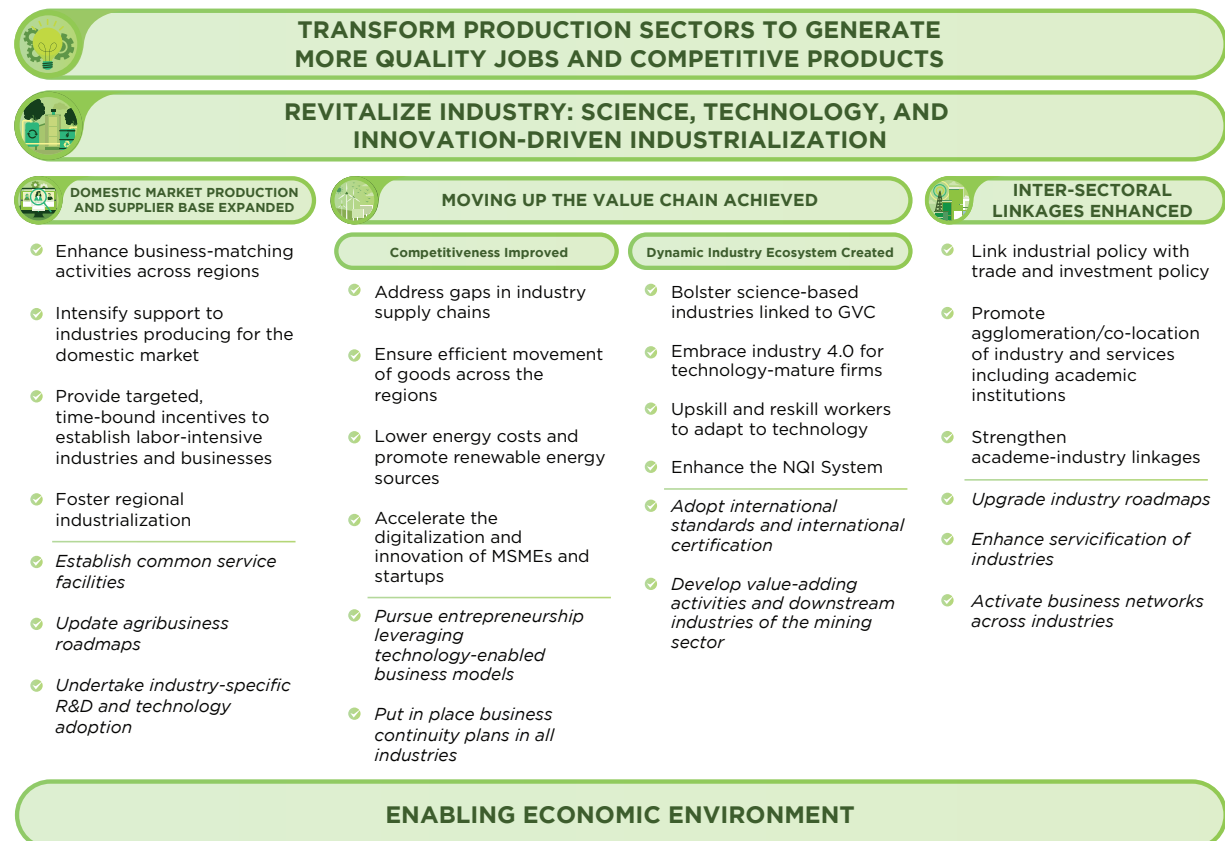
vis-à-vis Malaysia, Thailand, Vietnam, and Indonesia.⁸ However, in order for Philippine firms to adopt new technologies to become more competitive, it is critical to expand their absorptive capacity, which requires developing the appropriate management skills and hiring more technical staff. The availability 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, and providing targeted and time-bound incentives to establish labor-intensive industries and businesses. Enticed by the large domestic consumer base, entrepreneurs leveraging technology-enabled business models will be supported. 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.

Inclusive innovation centers 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 (MNC) 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 towards 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 & engineering; mining & 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*).

Enhance the National Quality Infrastructure System

There is a need to address the fragmented nature of the country's National Quality Infrastructure 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*).

Outcome 3: Inter-sectoral linkages enhanced

Revitalizing industry through science, technology, and innovation industrialization will require enhancement of several linkages 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.

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, Resilient Economy (MBN).

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/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 to make the Philippines self-sufficient in pharmaceuticals), 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, healthcare 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.

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.

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, the 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 & 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 & 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 of 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)	The RCEP negotiations were launched in November 2012 and concluded eight years after, in November 2020, at the height of the coronavirus disease (COVID-19) pandemic. RCEP is a free trade agreement between 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	EOP		
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
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	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

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
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
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	SICT	DTI, DICT, DOST, PSA
Regional inclusive innovation centers established	11 (2022)						≥1/ Region	≥17	DTI	DTI

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
Outcome 3: Inter-sectoral Linkages Enhanced										
Number of 6-digit exported products increased ^d	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 DBCC 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. 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. <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. 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. URL here.
- 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. 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 creativity and innovation in services value proposition strengthened

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 7.3–8.3 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 percent 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 in 2021 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.

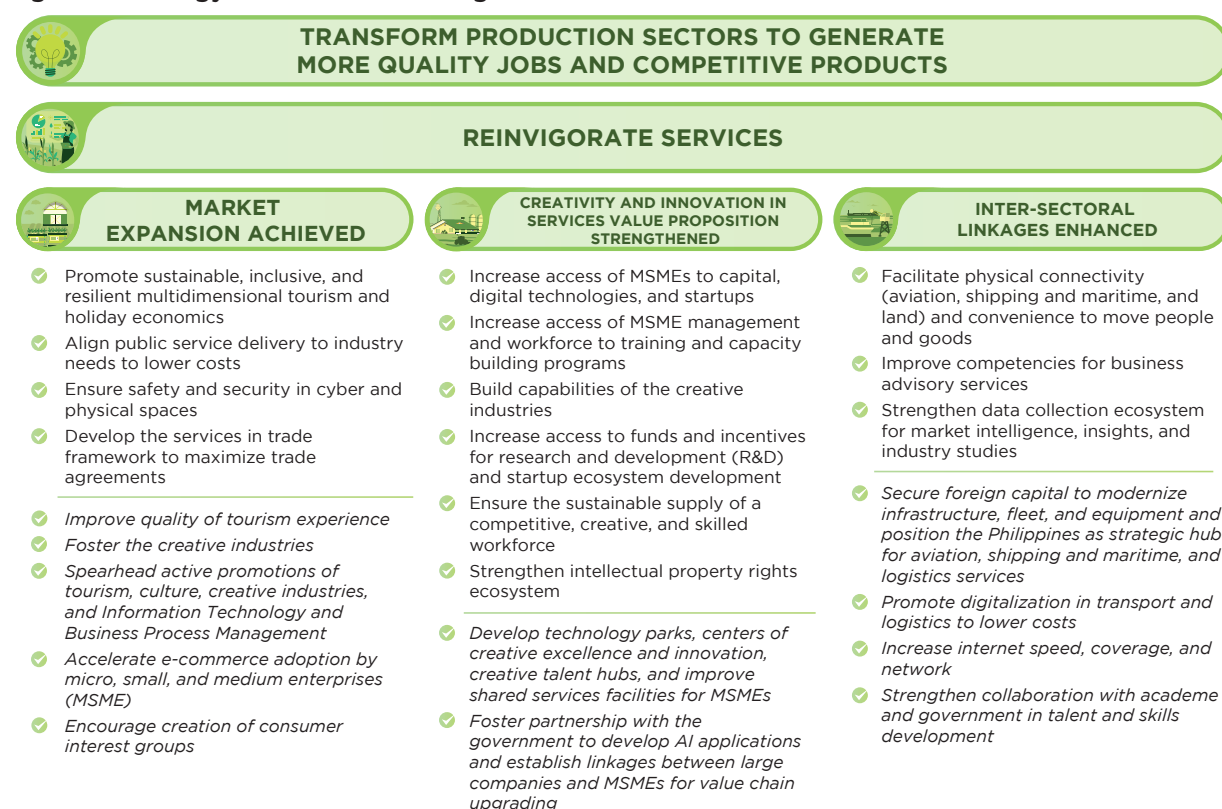
Strategy Framework

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 towards 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 micro, small, and medium enterprises

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 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 capacitybuilding 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 (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 of 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.	Department of Trade and Industry
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)	Department of Trade and Industry (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)	Department of Tourism (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.

Endnotes

- ¹ Serafica, R.B. 2014. "Formulating the Philippine Services Strategy for Inclusive Growth." Discussion Paper Series No. 2014-22. Quezon City: Philippine Institute for Development Studies. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1422.pdf>.
- ² Philippine Statistics Authority (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. Quezon City. <https://psa.gov.ph/content/philippine-tourism-satellite-accounts-pts-a-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. Quezon City/Philippine Institute for Development Studies. <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:

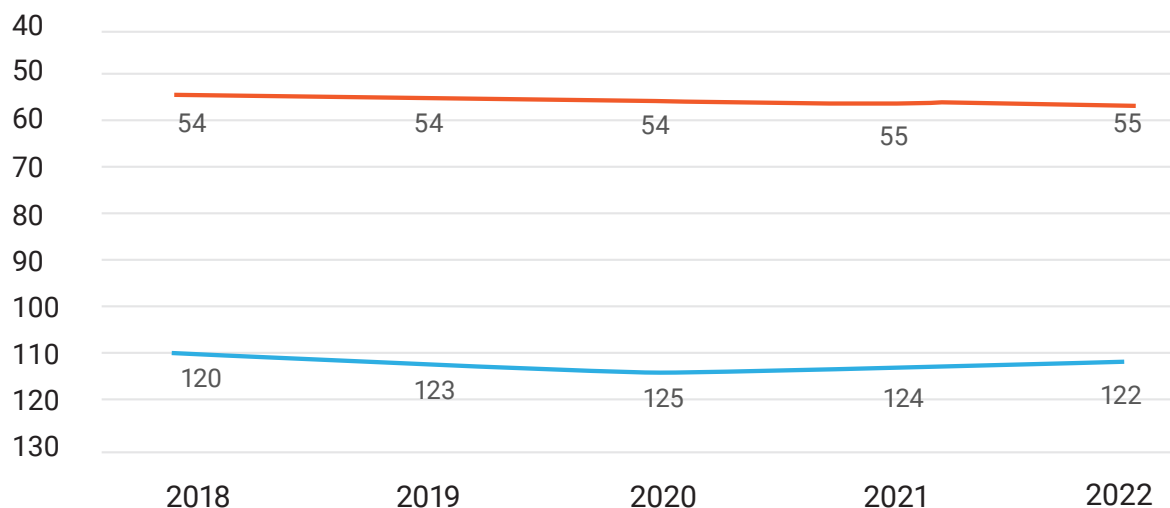
Inadequate human resources in science-technology-innovation (STI), and R&D. The country's capacity to generate new knowledge and technology is dependent on its human resources. Although the country has relatively high 2022 GII score in "Graduates in Science and Engineering," it only has less than 174 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

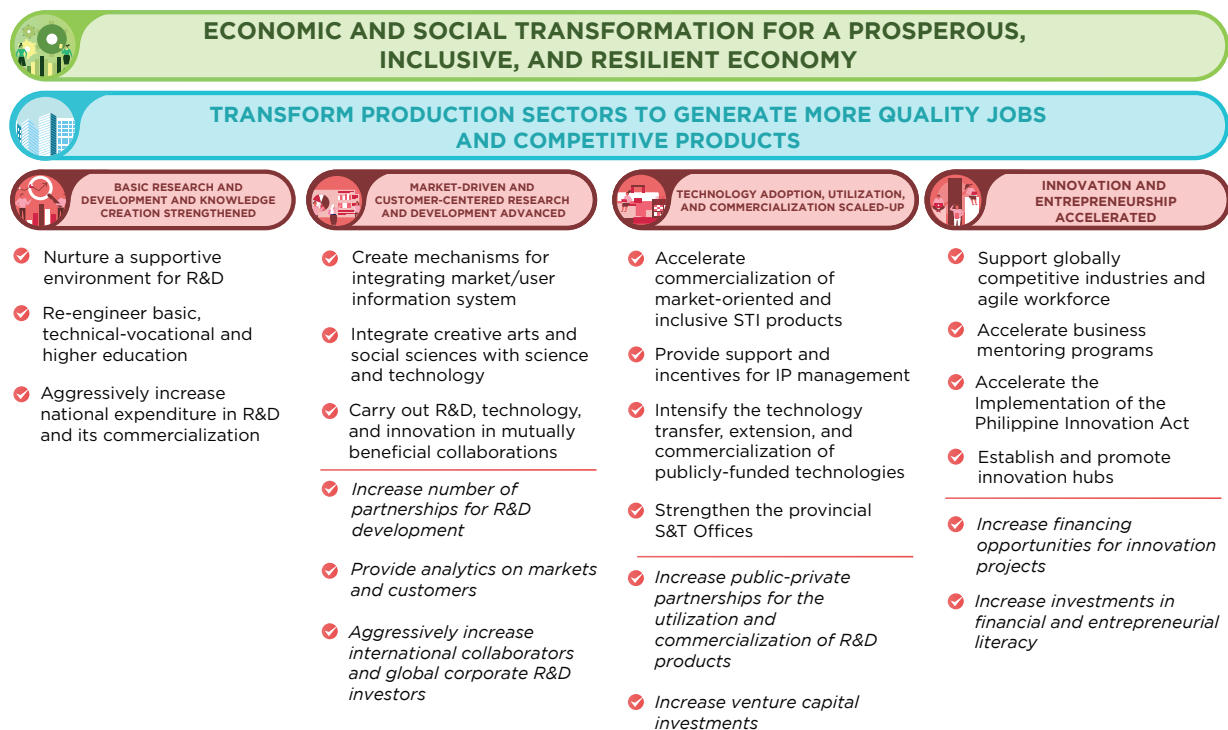
Notwithstanding these challenges, there are positive directions in the development of the country's R&D, technology and innovation infrastructure as evidenced by new laws, policy actions, and various initiatives taken in the last six years.⁹

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 (CHED) 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 towards 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 towards 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 towards 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 (TBI), 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 state universities and colleges 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 state universities and colleges and the technology transfer and business development offices. A framework that will standardize the procedures for research and development institutions and SUC for valuing their IP assets shall be adopted.

Strengthen the provincial 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 state universities and colleges 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, 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 Council 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 and entrepreneurial expertise by providing development skills. It will share financial trainings on finance and entrepreneurship.

Legislative Agenda

Table 8.1 presents the priority bills of 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 to 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
Amending Section 177 and Section 216 of RA No. 8293, Otherwise Known as the Intellectual Property 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 P2P networks and ISPs. 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.

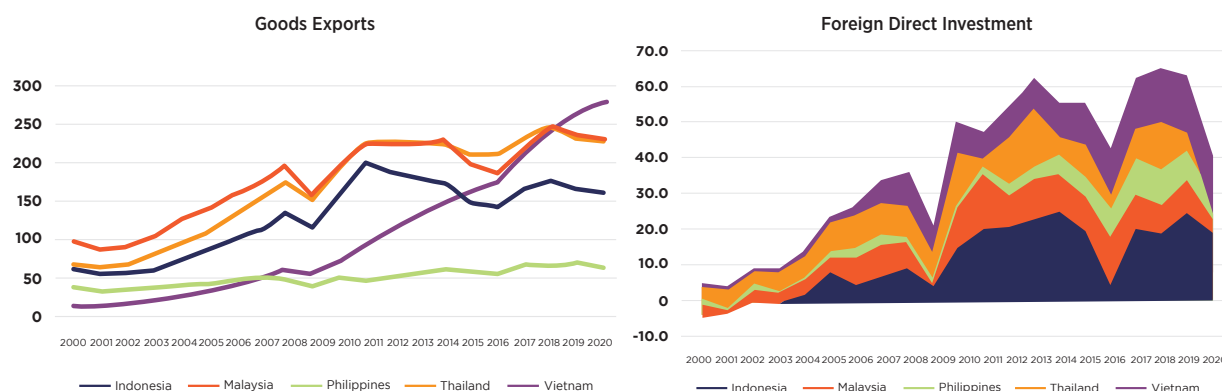
This chapter presents the challenges facing trade and investments and the twin outcomes to be pursued to address these challenges during the Plan period. These outcomes are: (a) global position of Philippine export sectors restored, sustained, and strengthened; and (b) total investments increased and 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 4 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 USD5-6 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.

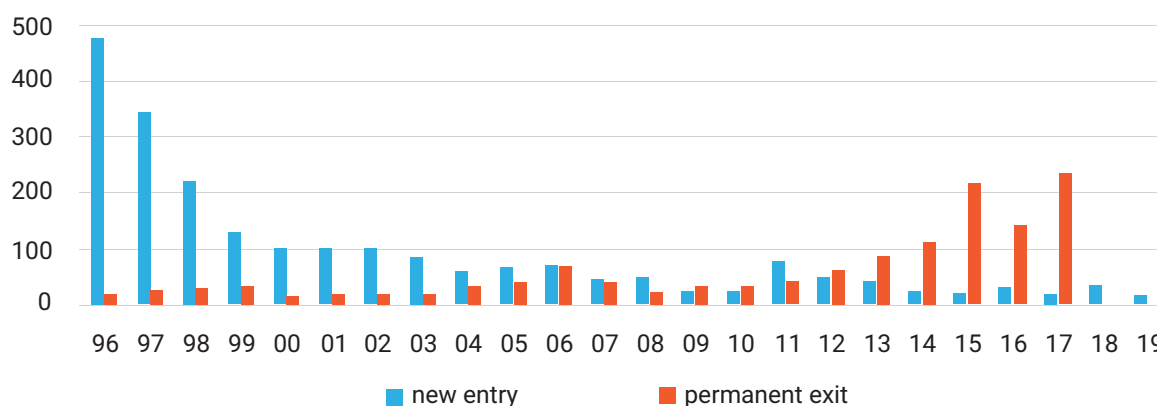
The number of jobs that are created by trade and FDI is difficult to ascertain due to insufficient or unmatched data, e.g., between the Philippine Standard Commodity Classification and the Philippine Standard Industrial Classification data. The latest 2018 enterprise census data indicated that employment (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, as well as be 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

GPC 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 attaches, 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 fortress 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, granular strategies to increase exports on three fronts: global value chains, 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 towards 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 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 branding 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 Investment 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 towards 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 of the 19th Congress to promote trade and investments.

Table 9.1 Legislative Agenda to Promote of Trade and Investments

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
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% of the world's population, 30% of gross domestic product, 29% of trade, and 33% 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
Total investments increased and targeted to boost trade, skills upgrading, and sustainability		
Executive Order (EO) 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		
Chapter 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	Department of Trade and Industry (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
Chapter 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

^aBased on BSP Balance of Payments data.

^bBased on PSA data.

^cRefers to total exports excluding electronics exports.

^dBased on Harmonized System at the 6-digit level.

^eTargets based on DBCC projections approved during the 183rd DBCC meeting on December 5, 2022.

^fBased on export projections in the draft PEDP 2023–2028, subject to revision pending approval of draft PEDP.

^gThe 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 See 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 See this Oxford study on jobs most likely to be automated: 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 Servicification refers to the increasing use and reliance of manufacturing on services. See, for example: 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 See for example, Kearney. 2021. Toward a Global Network of Digital Hubs: The 2021 Kearney Global Services Location Index. <https://www.kenarney.com/digital/article/-/insights/the-2021-kenarney-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 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.

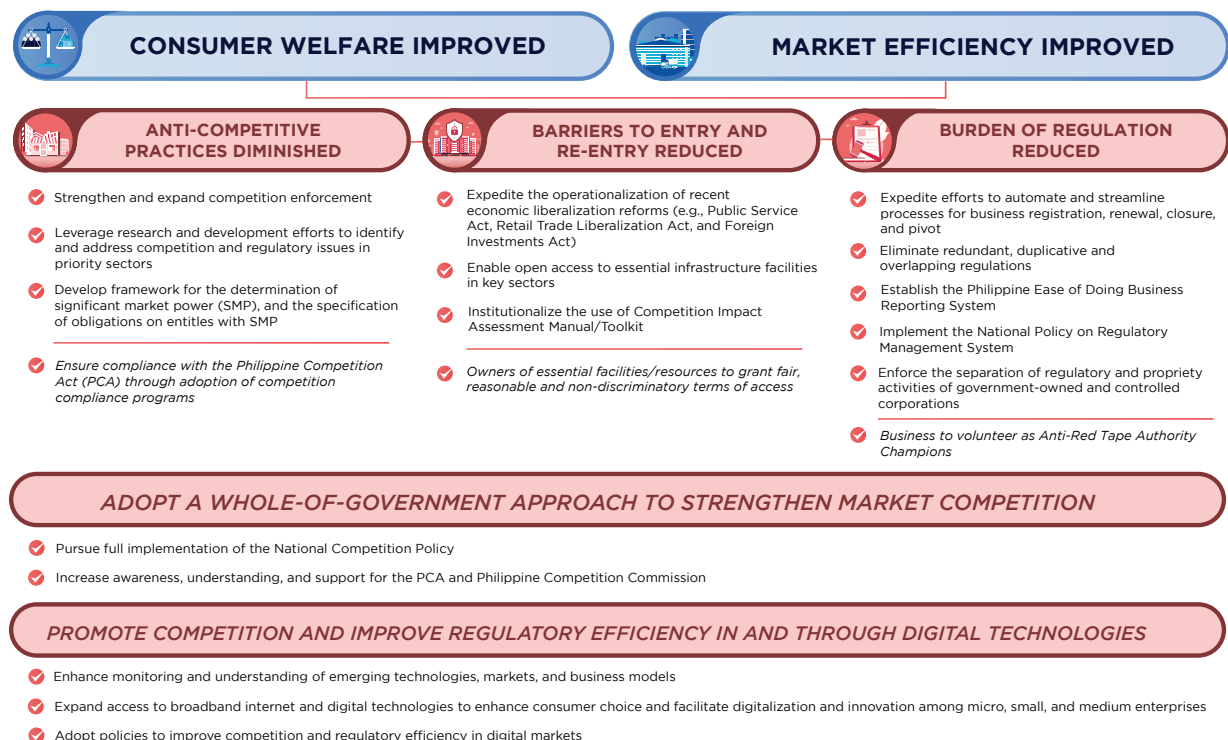
Finally, the use of internet and digital technologies also creates new challenges for competition enforcement and regulation. Digital technologies can encourage and enable anticompetitive behavior such as: (a) the exclusion of potential rivals from the use of critical infrastructure; (b) the use of algorithms 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: Anticompetitive 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 sub-chapter 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 Sub-chapter 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 pivots

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 (DAP), 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 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 Government 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. NGAs, 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.

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 (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

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 Tech³ 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.

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 of 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	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 ISPs 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 (SEC)
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		
Outcome 1: Consumer welfare improved Outcome 2: 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
Subchapter 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
Subchapter 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 businesses 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)
Subchapter 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; Rizov, M., M. Vecchi, and J. Domenech. 2022. "Going Online: Forecasting the Impact of Websites on Productivity and Market Structure." *Technological Forecasting and Social Change* 184 (November).
- ³ 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 socio-economic 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.

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 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 ahead of 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's 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 United States Dollar 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 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

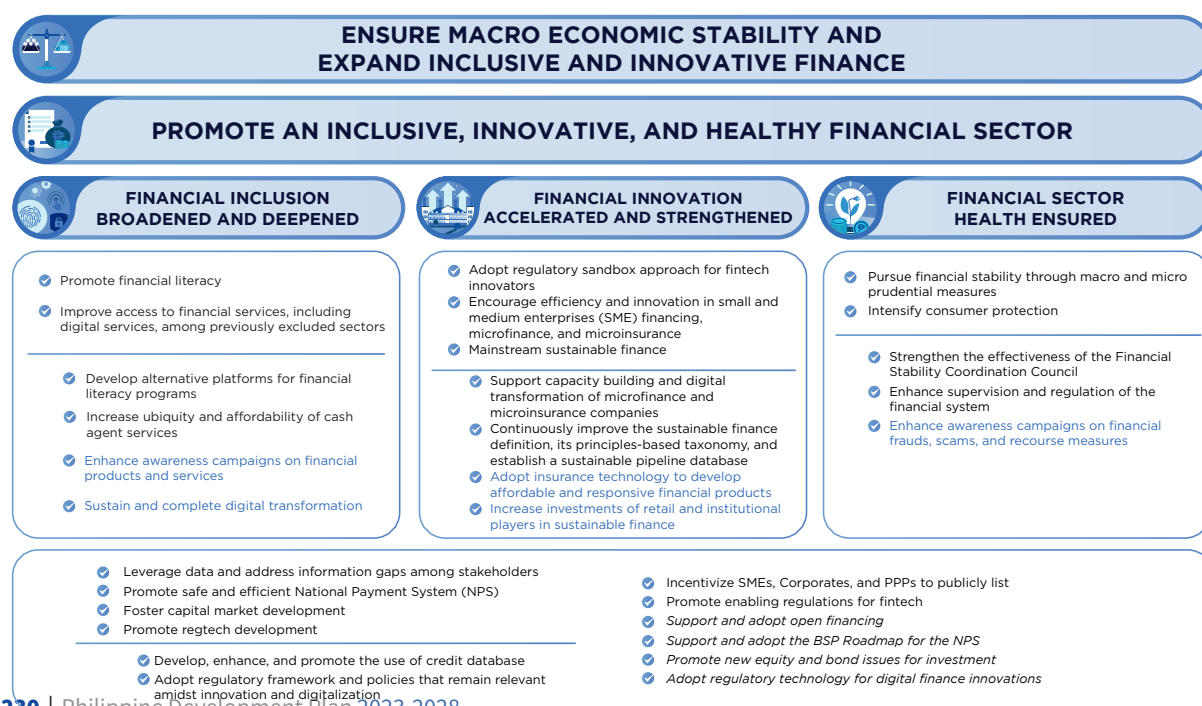
financial innovation in general. Banks have to embrace digital transformation fully and adopt a “coopetition” perspective to allow open banking to flourish. The development of Philippine capital markets lags behind that of Association of Southeast Asian Nation peers while issues on mainstreaming sustainable 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, Land Bank 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 (FIs)—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

payments 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 strengthened and accelerated

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 macro-prudential 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 small and medium enterprises and public-private partnerships 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 of 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.	Bangko Sentral ng Pilipinas (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: A productive, equitable, and simple tax system established and other sources of revenues mobilized									
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	Bangko Sentral ng Pilipinas (BSP) Demand Side survey	BSP
Proportion of E income socio-economic 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: An efficient and inclusive budget system implemented									
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: Local government finance strengthened									
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, Social Security System, 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., Philippine Guarantee Corporation [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 Social Security System (SSS), Government Service Insurance System (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/ *Bangko Sentral ng Pilipinas*, 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 socio-economic 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. Rightsizing of the bureaucracy will be pursued, consistent with the devolution of services to local governments. 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

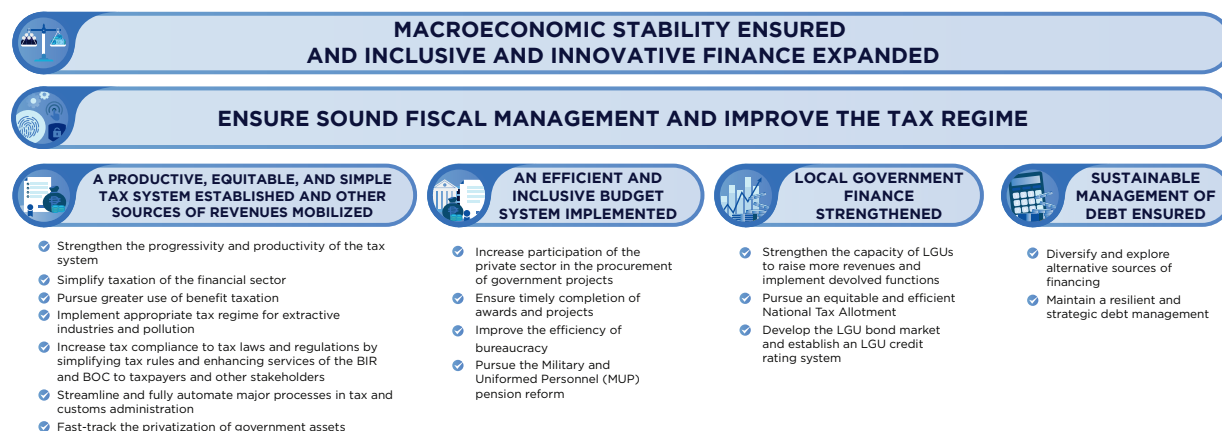
Sound fiscal management and an improved tax regime will help ensure a stable macroeconomic environment. Adequate revenues will be raised to finance economic development and provide better education, health, and social services. To sustain sound fiscal management, the following outcomes will be pursued: (a) productive, equitable, and simple tax system; (b) efficient and inclusive budget system; (c) stronger local government finance; and (d) sustainable management of debt.

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 (VAT) tax 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 2 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 an LGU credit rating system (*See Subchapter 11.1*). Such a 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 of 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	RESPONSIBLE AGENCY
Tax Policy and Administration Agenda	Digital Taxation Framework to 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 has provisions to 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 that will improve the ease of paying taxes and authorize the automatic exchange of information for tax purposes.	Department of Finance (DOF), Bureau of Internal Revenue, Bureau of Customs
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.	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 to 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 local government units (LGU). 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, Department of Budget Management

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	Bureau of Treasury (BTr) Cash Operations Report and Philippine Statistics Authority (PSA) National Income Accounts (NIA)	Department of Finance
Outcome 2: An efficient and inclusive budget system implemented									
Utilization of current year's budget maintained above 90 percent (%)	52.9 (S1 2022)	>90	>90	>90	>90	>90	>90	Department of Budget Management 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 (S1 2022)	>30	>30	>30	>30	>30	>30	Bureau of Local Government Finance (BLGF) Statement of Receipts and Expenditures	BLGF
Year-on-Year growth in social and economic service expenditures maintained at 10 percent (%)	28.8 (S1 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 IMD report, the Philippines' central bank policy ranked 18th out of 63 countries.
- ² BSP Circular No. 980 dated 06 November 2017.
- ³ PESONet is the 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 Philippine Statistical Authority Report on the Digital Economy, Oct 2022.
- ⁶ Memorandum Circular No. 97, series of 2022 issued by the Office of the President on June 23, 2022.
- ⁷ Microfinance Council. "2016 Social Performance Country Report" [microfinancecouncil.org](https://microfinancecouncil.org/wp-content/uploads/2017/04/2016-Philippines-Social-Performance-Country-Report.pdf) <https://microfinancecouncil.org/wp-content/uploads/2017/04/2016-Philippines-Social-Performance-Country-Report.pdf> (accessed on 24 January 2022).
- ⁸ IMF. "Philippines Financial Sector Assessment Program" IMF.org <https://www.imf.org/en/Publications/CR/Issues/2022/06/02/Philippines-Financial-Sector-Assessment-Program-Technical-Note-on-Macroprudential-Policy-518572> (accessed on November 18, 2022).
- ⁹ Such as the potential use of loan-to-value (LTV) and debt-to-income ratios, liquidity, and foreign exchange position as macroprudential tools.
- ¹⁰ Insurance Commission (IC), Securities and Exchange Commission (SEC), and Philippine Deposit Insurance Corporation (PDIC),
- ¹¹ E.g., Credit Information System of Credit Information Corporation.
- ¹² NPS 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 Carlos Cantú & Michael Chui, 2020. "Financial market development and financial stability," BIS Papers chapters, in: Bank for International Settlements (ed.), Financial market development, monetary policy and financial stability in emerging market economies, volume 113, pages 19-38, 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 Duterte administration 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 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 are deemed inaccessible and unsafe, especially for vulnerable groups. According to the National Council on Disability Affairs, 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 transports 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 PHP 3 billion from 2020 to 2022. While there are four households that own bicycles to each household that own a car,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 infrastructures. 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 54.70 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 local government units. 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. 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 (GNI) 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 53.40 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 adversely affect connectivity alone, 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 (NWRB) 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 have yet to be achieved. Based on the 2020 Annual Poverty Indicators Survey (APIS) 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 household), 13.5 percent had “limited-service level” (i.e., used an improved sanitation facility shared with two or more households). Again, 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).

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),

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 PHP 63.6 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.

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 recent 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 US\$), 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 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 (DOJ) recently released a legal opinion exempting inexhaustible RE sources from 60:40 foreign equity/ownership restriction. On 15 November 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% by 2030 and 50% 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 un-energized 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 RA 11646 or the Microgrid Systems Act.¹¹

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. 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.

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, wherein unutilized, unimplemented, and improperly executed contracts have been identified as a source of wastage in the use of funds, per a 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

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.

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 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 to 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 needs 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 to the 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 leads 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 as well pursuing the plans to establish long-haul freight rail and waterway transport lines will speed up the transport of goods across the country.

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 to address 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 persons with

disabilities) also remains digitally excluded with the existing digital services not designed to cater to their special needs.

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 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.

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 2040*, electricity consumption was projected to grow to nearly four times its 2019 level by 2040. While the implementation of

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.

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

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 Philippine Health Facility Development Plan 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

an immediate challenge. Achieving energy security likewise requires resiliency against climate-related events that cause power disruptions.

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 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 infrastructures dedicated for disaster and calamity preparedness and resilience will continue to exacerbate the inadequacy of classrooms, which are used as temporary evacuation centers.

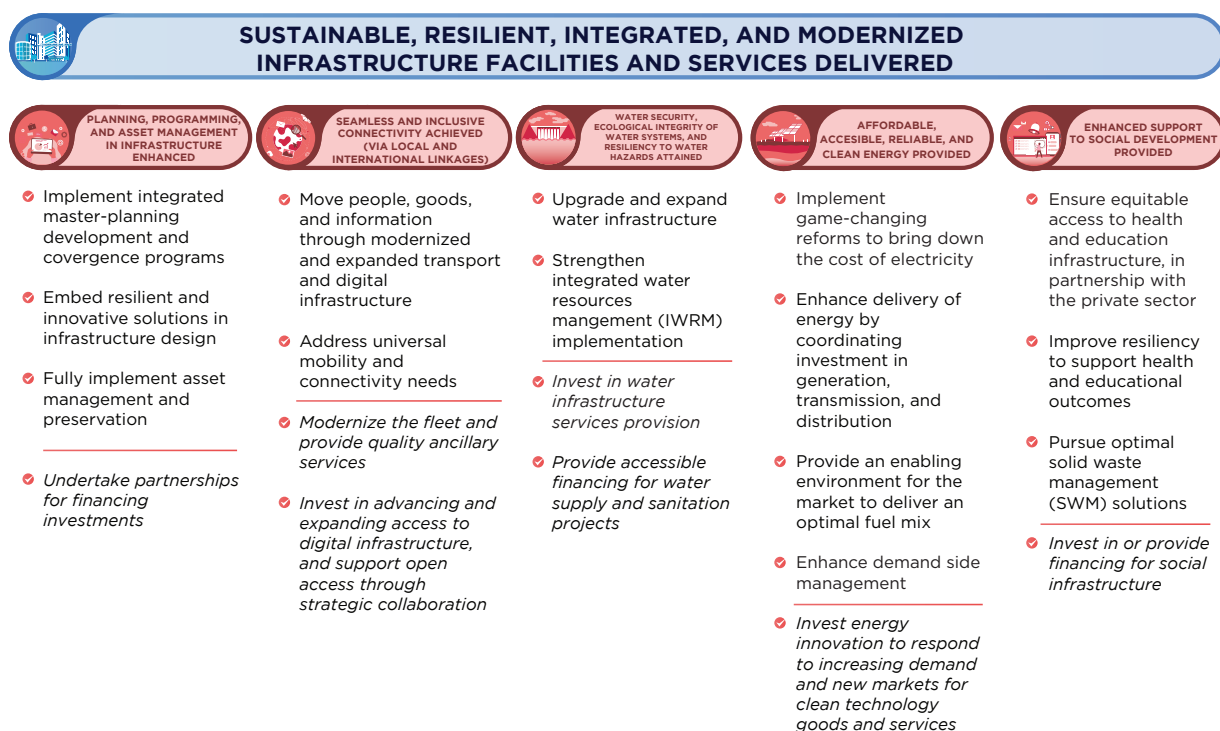
Solid waste management (SWM) facilities remain inadequate to cope with the increasing rate of waste generation, especially in urban areas. Majority of local areas are still unserved by common waste facilities, including material recovery facilities and by sanitary landfill facilities. The sector continues 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.”

Figure 12.1 Strategy Framework to Expand and Upgrade Infrastructure



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.

Strategies

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

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 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:

1. 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,
2. Nurture and promote facilities-based competition so that industry players consistently invest to advance their digital infrastructures, thereby benefitting the general public, and,

3. 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 of 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) 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

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 integrated water resource management (IWRM) as applied in the planning and management of land, water, and coastal resources. The major pillars in this strategy are as follows:

- ensure water availability through efficient water infrastructures and management;
- allocate and utilize water efficiently especially over competing water uses;

- maintain and enhance surface and ground water quality;
- ensure good sanitation and drainage (including proper disposal);
- protect land, water and coastal resources;
- protect life and property from water and coastal hazards including dam-related hazards; and
- manage flood effectively (with sediment control) and mitigate droughts.

Upgrade and expand water infrastructure

1. Implement the Philippine Water Supply and Sanitation Master Plan (PWSSMP), the National Irrigation Master Plan (NIMP), the National Water Security Road Map (NWSRM) 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 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 nature-based solutions (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, e.g., 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 integrated water resource management (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:

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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).

- 6. 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

Public-private partnerships 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

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 (kW) demand to choose RE as their preferred power supply.

The tax (value-added tax) 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 reevaluate 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 liquefied natural gas (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 Implementing Rules and Regulations 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, 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 PCECP. 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 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

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 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-gap areas.

To ensure equitable access to quality and affordable health care goods and services, proposed interventions will prioritize GIDAs, marginalized populations, and indigenous people 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. The Department of Education (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 (NDC) (*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 contains priority bills of 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/DESCRIPTION	RESPONSIBLE AGENCY
General Infrastructure Policy		
Public-Private Partnership (PPP) Act	This amends the Build-Operate-Transfer (BOT) 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 (PPPC), National Economic and Development Authority (NEDA)
Amendment of RA 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.	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), Department of Public Works and Highways (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

LEGISLATIVE AGENDA	RATIONALE/DESCRIPTION	RESPONSIBLE AGENCY
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.	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
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, ERC, 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, DOST
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 Energy Regulatory Commission (ERC)	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, 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, DILG

LEGISLATIVE AGENDA	RATIONALE/DESCRIPTION	RESPONSIBLE AGENCY
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 integrate digital technology and innovation into public basic education by, among others, ensuring adequate investment in digital and technological infrastructure in public schools.	DepEd
Waste-to-Energy 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 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 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		
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 (DBM)
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)

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
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 (LRMC)/ LRT Line 1 Project Management Office (PMO) 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), 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)
Cargo transported via air and sea increased (international and domestic) (metric ton, cumulative)	470.30 million (2021)	1,302	1,400	1470	1570	1700	1850	1850	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	DICT
Households with internet access [% total HHs]	17.70 (2019)	35.00	40.00	45.00	50.00	55.00	60.00	60.00	ITU	
Affordability of mobile and fixed broadband service [% GNI 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										

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
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 [Annual Poverty Indicators Survey (APIS), Family Income and Expenditure Survey (FIES)])	MWSS/ WDs/ Rural WS/ 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	DOH Admin data	DOH, LGUs
Energy										
Proportion of households with access to electricity increased (% of total households) ^{b/}	95.41 [2021]	95.50	TBD	TBD	TBD	TBD	TBD	TBD	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										

INDICATOR	BASELINE (YEAR)	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
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
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 ^{ad/}										
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/NSWMC
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 (NG) 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, 5 December 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 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. <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. <https://dotr.gov.ph/data-sets/railways-sector-d1.html> (accessed day Month year), 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. <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. <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). 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. <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). <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 <https://dict.gov.ph/ictstatistics/nichs2019/> (accessed day Month year).
- 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. <https://www.unapcict.org/sites/default/files/2021-03/Digital%20Trends%20in%20Asia%20Pacific%202021.pdf>.
- ¹⁷ See Ravago, M.V. 2022. “The Nature and Causes of High Philippine Electricity Price and Potential Remedies.” Ateneo Department of Economics Working Paper No. 2022-01. 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. <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. <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. <https://2012.ateneo.edu/ls/soess/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. <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. <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 19 August 2022.
- ²⁸ Department of Education (DepEd). 2022. Basic Education Development Plan 2030. Pasig City. 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. <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. 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> (accessed day Month year). Washington, DC; TomTom. 2020. Annual Traffic Index. <https://www.tomtom.com/traffic-index/> (accessed day Month year).
- 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. <https://apps.who.int/nha/database/ViewData/Indicators/en> (accessed 27 December 2022).
- ³⁶ World Health Organization. 2010. World Health Report, 2010. Geneva. <https://www.who.int/publications/i/item/9789241564021>.
- ³⁷ Department of Health. Philippine Health Facility Development Plan 2020–2040. Manila. 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. <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. Fria, 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 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 (Republic Act 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 completed⁸. 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 Modernization Act (Republic Act 11589) is expected to upgrade fire protection services in the country. The Bureau of Fire Protection 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 (LGUs) 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, 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

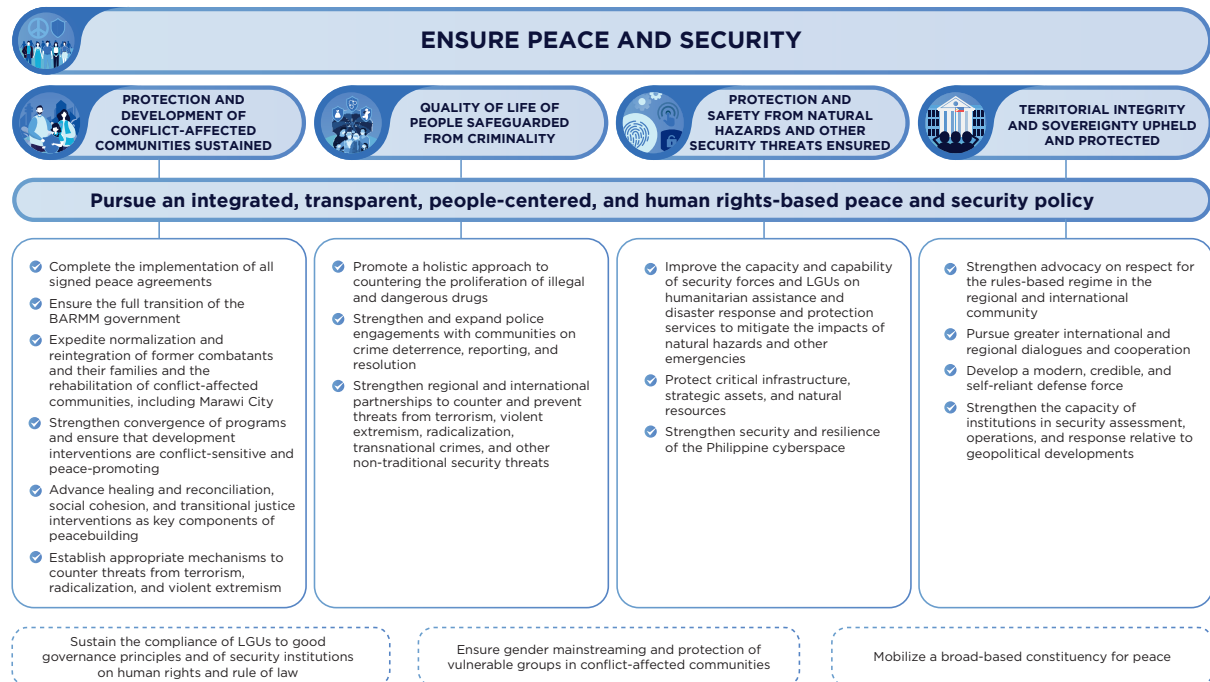
Ensuring peace and security is an essential foundation of sustainable development. The government will consistently pursue

peace by mainstreaming peacebuilding and development interventions and utilizing a conflict-sensitive-and-peace-promoting

paradigm in government programming. Towards 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; and

the country's territorial integrity, maritime rights, and entitlements will be protected. 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: Conflict-affected communities and conflict-vulnerable areas protected and development 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 towards 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 towards 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 as 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 Philippine Coast Guard 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, persons with disability, 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	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 (2) 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 critical information infrastructure (CIIs) by prescribing minimum standards for compliance by government agencies.	DICT
Cybersecurity Act	This aims to strengthen the cybersecurity workforce in the country and strengthen capabilities of the Department of Information and Communications Technology (DICT) by providing it with regulatory authority over CIIs 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.	Office of the Presidential Adviser on Peace, Reconciliation and Unity

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	ANNUAL PLAN TARGETS		MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER-AGENCY BODY	REPORTING ENTITY
		ANNUAL	EOP			
Subchapter 1—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	NTF-ELCAC
	1,406 beneficiary barangays (2022)	100% of barangays provided with interventions by 2024	100%	NTF-ELCAC progress reports	NTF-ELCAC	NTF-ELCAC
Percentage of implementation of peace agreements: Comprehensive Agreement on the Bangsamoro	43% (2021)		100%	Office of the Presidential Adviser on Peace, Reconciliation and Unity (OPAPRU) Report	OPAPRU	OPAPRU
Percentage of implementation of peace agreements: 1996 Final Peace Agreement with the MNLF	50% (2021)		100% (by 2025)	OPAPRU Report	OPAPRU	OPAPRU
Percentage of implementation of peace agreements: 2000 Peace Agreement with the RPM-P/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 decreased	2.8 (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	Philippine Statistics Authority (PSA)	PSA
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	Department of Information and Communications Technology (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 Republic Act No. 11576,⁴⁸ which amended the jurisdictions of the First Level and Second Level Courts in civil cases; and Republic Act No. 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 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 Supreme Court 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.

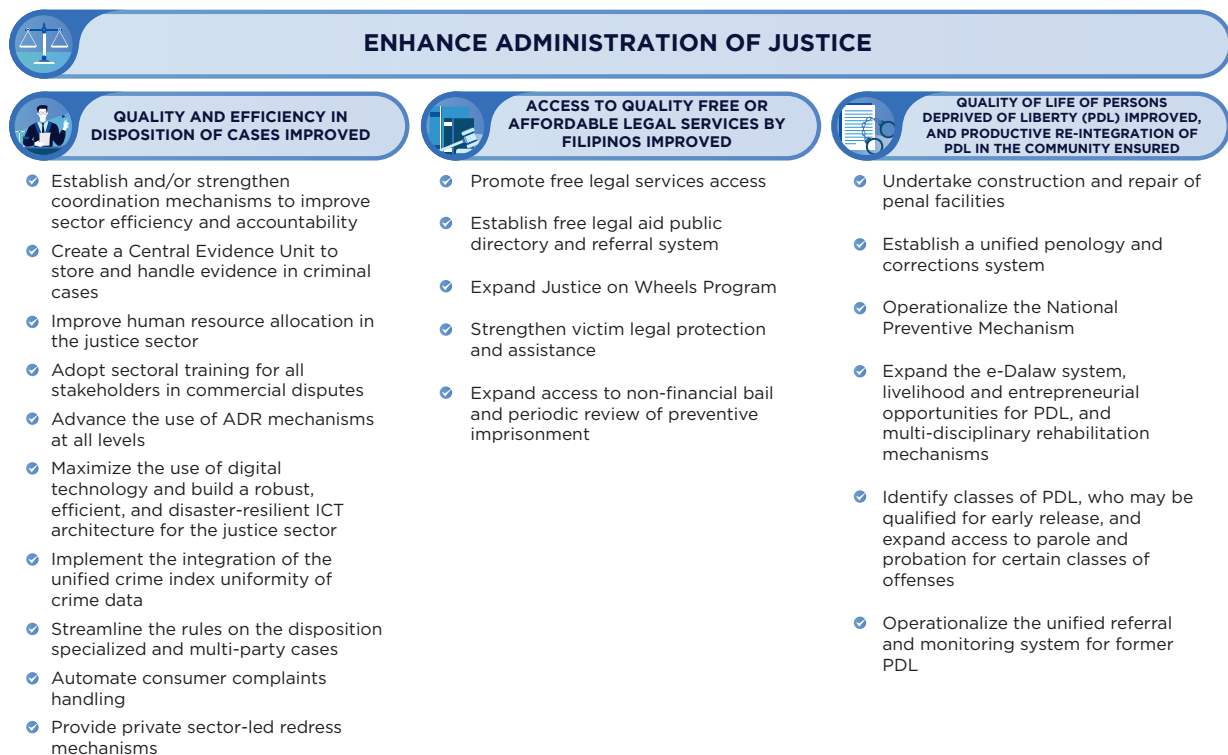
Low public confidence in the justice system undermines the rule of law. While justice sector actors generally received good net trust ratings in the 2021 Justice Needs Survey,⁵²

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. Republic Act 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 Supreme Court 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 Republic Act No. 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, 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, Philippine National Police, National Bureau of Investigation, Philippine Drug Enforcement Agency, Dangerous Drugs Board, and Bureau of Immigration; and the Corrections Cluster involving the Bureau of Jail Management and Penology; Bureau of Corrections; 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 information and communications technology 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, Department of the Interior and Local Government, 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 Supreme Court, 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 Supreme Court 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 Supreme Court, 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 Supreme Court, 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 Supreme Court will expand the scope of the Justice on Wheels Program to address specialized issues like tenurial disputes in agrarian reform, and climate and environmental cases. Bringing the courts closer to litigants will ensure speedy resolution of disputes in tenurial 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 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 Republic Act No. 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 response

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 (Republic Act 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. Towards this end, the DOJ, the 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/DESCRIPTION	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 Katarungang Pambarangay	This will reassess exemptions of cases that may be brought before the Lupong Tagapamayapa, 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 persons deprived of liberty (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	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	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Subchapter 2–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	Supreme Court (SC) Annual Report	SC
Percentage of successful prosecution improved (convictions vis-à-vis acquittal) ^b	91.05 (2021)	91.05	91.07	91.09	91.11	91.13	91.15	Department of Justice (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

INDICATORS	BASELINE	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY/ INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028		
Settlement rate of Alternative Dispute Resolution (ADR) cases improved									
Settlement rate of ADR cases by the Katarungang Pambarangay (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 Republic Act No. 11054 resets the first general election in the BARMM and synchronizes it with the 2025 national elections. See 18th Congress. 2021. Republic Act 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 Republic Act No. 11054, otherwise known as the "Organic Law For The Bangsamoro Autonomous Region In Muslim Mindanao. Signed on Oct 28, 2021. <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. April 28, 2022. <https://psa.gov.ph/grdp/grdp-id/167338>.
- ⁴ PSA. Proportion of Poor Filipinos was Recorded at 18.1 Percent in 2021. 15 August 2022. <https://psa.gov.ph/poverty-press-releases/nid/167972>.
- ⁵ Office of the Presidential Adviser on Peace, Reconciliation, and Unity (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. "Turning MILF Camps into Productive Ecozones: Still Much Work to be Done." MindaNews. March 3, 2022. <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. See also National Task Force to End Local Communist Armed Conflict (NTF-ELCAC). <https://www.ntfclac.org/bdp>.
- ¹² Haim, D., M.C. Fernandez, and M. Cruz. 2019. Evaluation Report: Evaluation of the Payapa at Masaganang Pamayanan (PAMANA) Program. Pasig City: National Economic and Development Authority. <https://nep.neda.gov.ph/evaluations/70> (accessed November 20, 2019).
- 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/> (accessed July 22, 2021).
- 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. July 13, 2021. <https://www.rappler.com/nation/ntf-elcac-fund-npa-free-barangays/>.
- ¹⁶ The Whole-of-Nation Initiative was rolled out as an Office of the President Memorandum Circular during President Aquino III's administration; and expanded by the Duterte Administration under Executive Order 70, s. 2018. See Duterte, R.R. 2018. Executive Order 70, s. 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. December 4, 2018. <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 See, for example, Caliwang, C. 2022. "PH Crime Rate Drops by 73.7% in 5 Years Under PRRD: DILG." Manila: Philippine News Agency. February 22, 2022. <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). Quezon City: National Disaster Risk Reduction and Management Council. <https://www.preventionweb.net/media/84407/download>.
- ²⁰ The Government of the Philippines (GPH)–MNLF Jikiri Group Coordinating Committee was created on November 22, 2019, to complete the remaining commitments under the 1996 FPA. See 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 The MILF normalization coordinating committees include the Joint Normalization Committee, Joint Peace and Security Committee, Coordinating Committee on Cessation of Hostilities-Ad Hoc Joint Action Group. See 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 Human trafficking and smuggling are major issues in the Philippines. Organized crime networks target vulnerable groups from the United States, Mexico, and the Philippines. See 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 71% of smuggling and trafficking in the country are transported by air. See Leones, C. and D. Caparas. 2003. Trafficking in Human Beings from the Philippines: A Survey of Government Experts and Law Enforcement Case Files. Quezon City: 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 8th Congress. 1991. Republic Act 7077: Citizen Armed Force or Armed Forces of the Philippines Reservist Act. June 27, 1991. <https://www.officialgazette.gov.ph/1991/06/27/republic-act-no-7077/>.
- ³⁶ 12th Congress. 2002. Republic Act No. 9163: National Service Training Program (NSTP) Act of 2001. January 23, 2002. <https://www.officialgazette.gov.ph/2002/01/23/republic-act-no-9163/>.
- ³⁷ Philippine National Police (PNP). 2020. Memorandum Circular No. 2020-081, PNP Critical Incident Management Operational Procedure. November 2, 2020. <https://law.upd.edu.ph/wp-content/uploads/2021/04/PNP-Memorandum-Circular-No-2020-081.pdf>.
- ³⁸ The reconstituted National Cybersecurity Inter-Agency Committee created technical working groups to review and evaluate the Cybersecurity Plan of the Critical Information Infrastructures of the Philippines and to recommend the necessary cybersecurity measures. PhilSA is designated in the Technical Working Group for Space, given that space technology applications are contributory in making cybersecurity infrastructure more resilient to cyber threats. See Duterte, R.R. 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. November 15, 2019. <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. 2004. World Development Report 2005: A Better Investment Climate for Everyone. Washington, DC: World Bank and Oxford University Press. https://ieg.worldbankgroup.org/sites/default/files/Data/reports/development_effectiveness_0.pdf.
- ⁴² World Bank. 2022. Pre-Concept Note: Business Enabling Environment. Washington, DC. <https://www.worldbank.org/content/dam/doingBusiness/pdf/BEE-Pre-Concept-Note---Feb-8-2022.pdf>.
- ⁴³ Ippoliti, R., A. Melcarne, and G. B. Ramello. 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 Worldwide Governance Indicators and The World Bank. 2022. Worldwide Governance Indicators: Philippines. <https://info.worldbank.org/governance/wgi/Home/Reports> (accessed September 23, 2022).
- ⁴⁶ World Bank. 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 18th Congress. 2021. Republic Act 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". July 30, 2021. <https://www.officialgazette.gov.ph/2021/07/30/republic-act-no-11576/>.
- ⁴⁹ 17th Congress. 2017. Republic Act 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. August 29, 2017. <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., M. Sta. Romana, and K. Rodrigo. 2018. "The Judiciary Under Threat." In M. R. Thompson and E.V.C. Batalla, eds., *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 16th Congress. 2016. Republic Act No. 10867: National Bureau of Investigation Reorganization and Modernization Act. June 23, 2016. <https://www.officialgazette.gov.ph/downloads/2016/06jun/20160623-RA-10867-BSA.pdf>.
- ⁵⁴ Supreme Court of the Philippines. 2001. Administrative Memorandum No. 01-7-01-SC on Rules on Electronic Evidence. July 17, 2001. <https://www.doj.gov.ph/files/rules%20on%20electronic%20evidence.pdf>.
- ⁵⁵ 17th Congress. 2013. Republic Act No. 10389: Recognizance Act of 2012. March 14, 2013. <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 maximize 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 nationwide have also contributed to this achievement.⁸ 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).

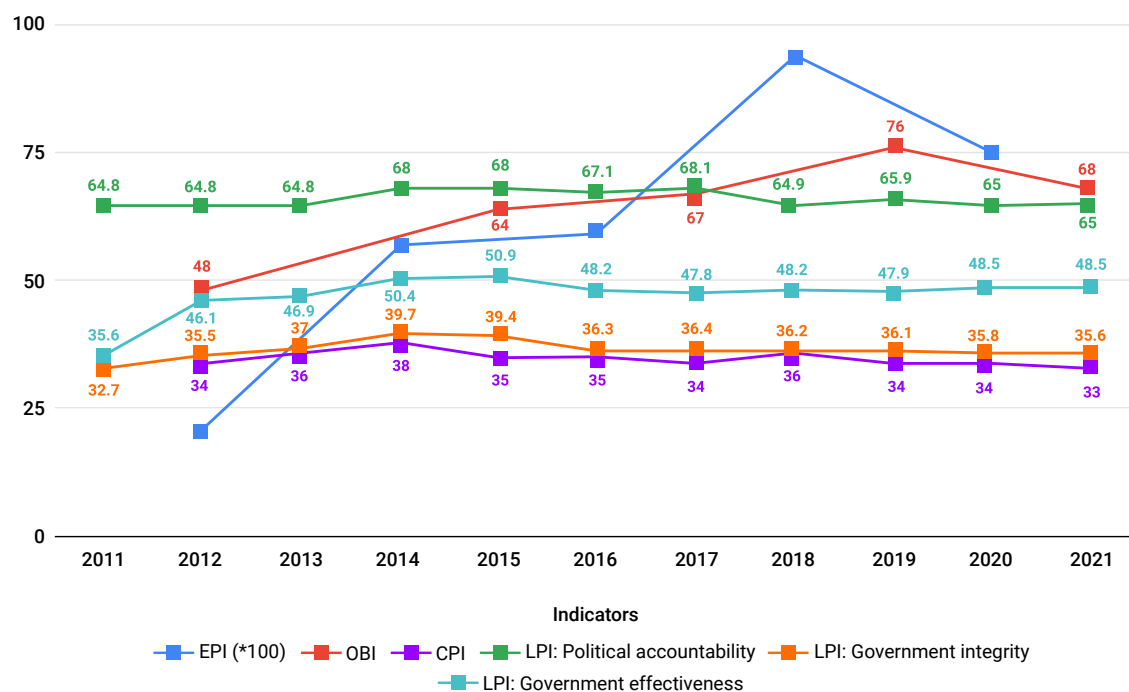
Higher rates of civil society organizations (CSO) participation were facilitated by the Fiscal Openness Program of the Department of Budget and Management (DBM), the Support for Local Governance Program of the Department of the Interior and Local Government (DILG), and the commitments made under the 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

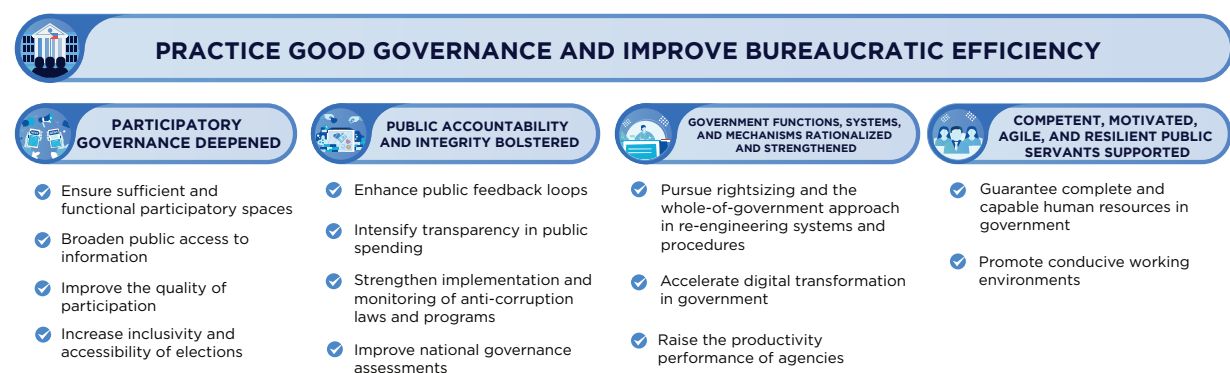
must also anticipate and mitigate the impacts of the ongoing COVID-19 pandemic and the transition due to the Mandanas-Garcia¹⁶ ruling implementation, as both expose bottlenecks, silos, and variances in participatory practices and service delivery efficiency across different government sectors. Finally, 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 the outcomes in the focus areas in other chapters of

this PDP. For instance, a rightsized, productive government with capable civil servants contributes to bolstering public accountability. These strategies also require coherence with other chapter outcomes in the PDP, i.e., 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 given to the Governance Commission for authority of government-owned and -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
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 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 and/or offices onboarded and contributing to the Open Data Philippines Portal increased	0 [2022]	15	25	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%	52%	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. <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/134-Philippines> (accessed 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. <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. 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. <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. <https://www.gov.ph/services/> (accessed 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. <https://dict.gov.ph/freewifi/#> (accessed 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. <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. 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. <https://www.transparency.org/en/cpi/2021/index/phl> (accessed October 22, 2022).
- ¹³ Transparency International. 2022. CPI 2021 for Asia Pacific: Grand Corruption and Lack of Freedoms Holding Back Progress. <https://www.transparency.org/en/news/cpi-2021-for-asia-pacific-grand-corruption-holding-back-progress> (accessed October 22, 2022).
- ¹⁴ Freedom House. 2022. Freedom in the World 2022: Philippines. <https://freedomhouse.org/country/philippines/freedom-world/2022> (accessed 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. <https://iap2.org.au/resources/spectrum/> (accessed October 22, 2022).
- ¹⁸ Arnstein, S. 1969. “A Ladder of Citizen Participation.” *Journal of American Planning Association* 35 (4): 216–224. <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. 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. <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). <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. 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 <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. <https://www.oecd.org/dac/evaluation/dacriteriaforevaluatingdevelopmentassistance.htm> (accessed 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. <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. <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). <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. <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. <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. <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. <https://www.officialgazette.gov.ph/2022/05/12/executive-order-no-170-s-2022/>.
- ⁴¹ DICT. 2019. E-Government Masterplan 2022. Quezon City. <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. <https://www.officialgazette.gov.ph/2022/02/07/memorandum-circular-no-95-s-2022/>.
- ⁴⁶ DAP. Government Quality Management Program. <http://pdc.dap.edu.ph/index.php/government-quality-management-program/> (accessed October 22, 2022).
- ⁴⁷ DAP. Capability Development. <https://coe-psp.dap.edu.ph/capability-development> (accessed October 22, 2022).
- ⁴⁸ DAP. Citizen Satisfaction e-Survey (e-CitSat). <http://pdc.dap.edu.ph/index.php/citizen-satisfaction-e-survey-e-citsat/> (accessed October 22, 2022).
- ⁴⁹ DAP. Business Satisfaction e-Survey (e-BizSat). <http://pdc.dap.edu.ph/index.php/business-satisfaction-e-survey-e-bizsat/> (accessed October 22, 2022).
- ⁵⁰ World Bank Group. 2019. Innovating Bureaucracy for a More Capable Government. Washington, DC. <https://openknowledge.worldbank.org/handle/10986/31284> (accessed 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. <https://www.oecd-ilibrary.org/sites/1a9499ff-en/index.html?itemId=/content/component/1a9499ff-en> (accessed 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. <https://www.oecd.org/gov/skills-for-a-high-performing-civil-service-9789264280724-en.htm> (accessed October 22, 2022).
- ⁵⁷ CSC. 2022. "Flexible Work Arrangements in the Public Sector May Now be Adopted Anytime." <https://csc.gov.ph/csc-approves-flexi-work-for-gov-t-employees> (accessed 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. <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/> (accessed 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. <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, (c) low carbon economy transition enabled, and (d) governance and intersectionality of climate change and natural hazard resilience improved.

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 (LGUs) 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 percent 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., 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 Environmental

Performance Index score of 28.9 points fall 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% are unconditional, and 72.29% 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

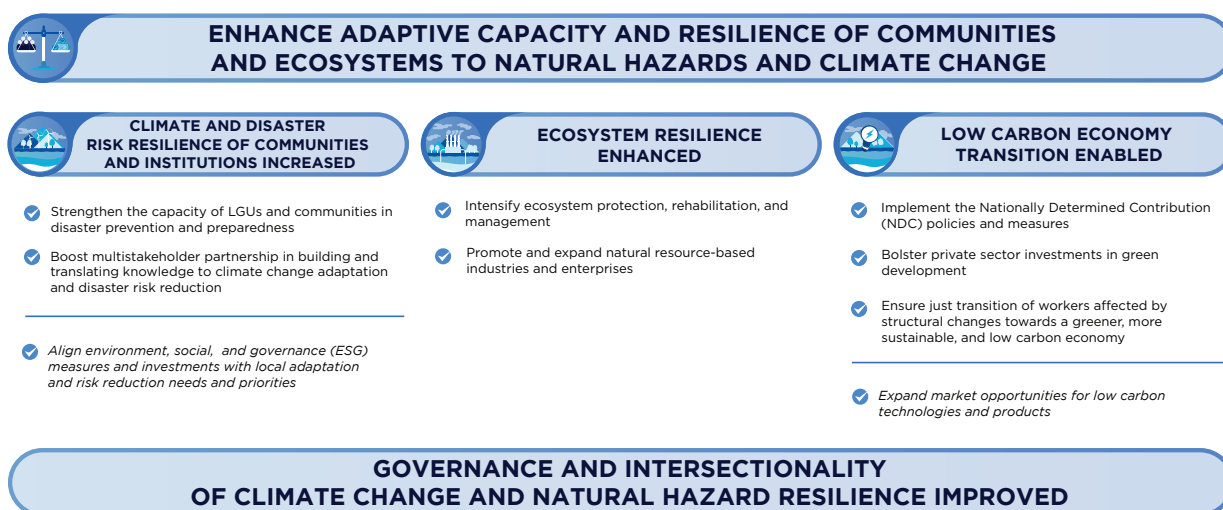
of the Mandanas-Garcia ruling. However, financial risks around climate change investments hamper the mobilization of significant private sector financing to drive climate-resilient and low-carbon transition. In addition, potential investors would need to deal with complex regulatory requirements, inconsistent 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 Nino-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 ESG⁸ 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 SDG Stakeholders' Chambers under the Sub-committee on the Sustainable Development Goals 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 toward 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 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: Governance and intersectionality of climate change and natural hazard resilience improved

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 towards 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 micro, small, and medium enterprises 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/DESCRIPTION	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.	Department of Environment and Natural Resources (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	TARGETS							MEANS OF VERIFICATION	RESPONSIBLE AGENCY/INTER-AGENCY BODY
		2023	2024	2025	2026	2027	2028	EOP		
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	Department of Environment and Natural Resources (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 (PAMs)	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 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). Quezon City: 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. Quezon City: 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. Washington, DC. 022. <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#> (accessed October 26, 2022).
- ⁹ The lead agencies are the Department of Agriculture, Philippine Statistics Authority, Department of Energy, Department of Environment and Natural Resources, and Department of Transportation and Communications. See Aquino III, B. S. 2014. Executive Order 174, s. 2014: Institutionalizing the Philippine Greenhouse Gas Inventory Management and Reporting System. November 24, 2014. <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 and PH-Open Government Partnership
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.

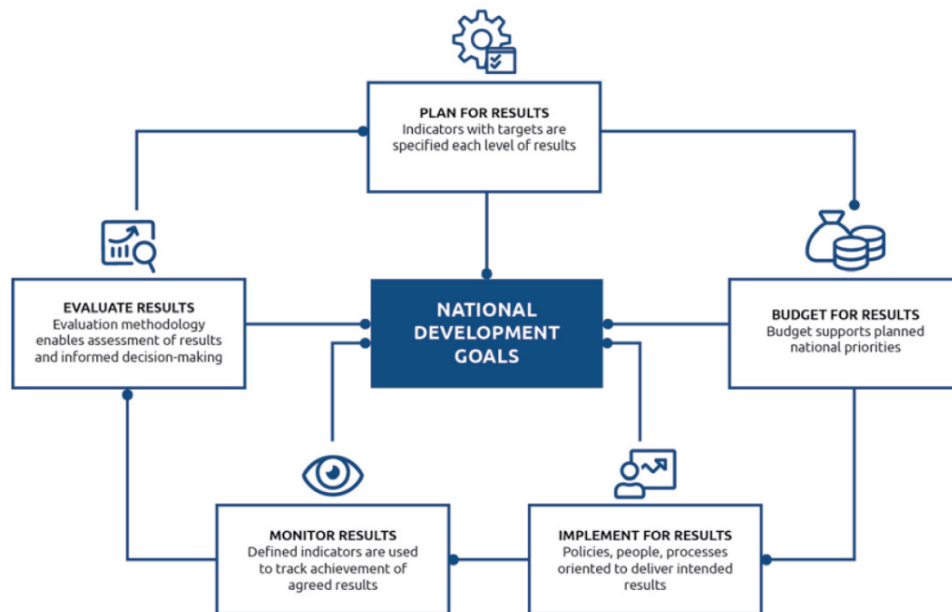
Evaluation Agenda for the Philippine Development Plan 2023–2028

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. <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. https://idev.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
BARMM	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 Peoples 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 R&D 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 Sensitive and Peace Promoting
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	Department of Justice - 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	Department of Public Works and Highways 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 Nino-Southern Oscillation
EO	Executive Order
EODB EGSD Law	Ease of Doing Business and Efficient Government Service Delivery Law
EODB-EGSD Act	Ease of Doing Business and Efficient Government Service Delivery Act
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	Intergrated Water Resources Management
JMC	Join Memorandum Circular
JSCC	Justice Sector Coordinating Council
KAYA	Kapital 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
LBP	Land Bank of the Philippines
LCAC	Local Culture and Arts Councils
LCCAP	Local Climate Change Action Plan
LCY	Local Currency
LDC	Local Development Council
LDRRMO	Local Disaster Risk Reduction and Management Office
LDRRMP	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 Agri-fishery 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	Noncommunicable 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 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 / NPSA	National Payment Systems / 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 Pla
NTF-DPAG	National Task Force on the Disbandment of Private Armed Groups
NTF-ELCAC	National Task Force 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
OF	Overseas Filipinos
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 Agri-Fishery Extension System

PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PALS	Philippine Association of Law Schools
PAM	Polices and Measures
PAMANA	Payapa at Masaganang Pamayanan
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	Provinces/Cities/Municipalities
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 Services
PESO	Public Employment Service Offices
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	Philippine Qualifications Framework-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	Public Utility Vehicle Service Contracting Program
PUVMP	Public Utility Vehicle 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 Facilities
SSS	Social Security System
SSTA	Space Science and Technology Applications
STEAM	Science, Technology, Engineering, Agriculture-fisheries, and Mathematics
STEEAM	Science Technology Engineering Entrepreneurship Arts Mathematics
STEM	Science, Technology, Engineering, and Mathematics
STI	Science, Technology, and Innovation
STPs	Science and Technology Parks
SUC	State Universities and Colleges
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 Offices
TTMF	Temporary Treatment and Monitoring Facilities
TUPAD	Tulong Panghanapbuhay sa Ating Disadvantaged/Displaced Workers
TVET	Technical-Vocational Education and Training
TVI	Technical-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
UNCAT	UN Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations 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 Studies
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
WSP	Water Service Providers
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. (ILO)
2005 UNESCO Convention	The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions is a binding international legal instrument adopted by the UNESCO General Conference on 20 October 2005, during the 33rd session of the UNESCO General Conference held in Paris, France on 3–21 October 2005. The Convention compliments the previously established provisions of UNESCO including the Universal Declaration on Cultural Diversity of 2001. The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions is a binding international legal instrument adopted by the UNESCO General Conference on 20 October 2005, during the 33rd session of the UNESCO General Conference held in Paris, France on 3–21 October 2005. The Convention compliments the previously established provisions of UNESCO including the Universal Declaration on Cultural Diversity of 2001. The Convention recognises the rights of Parties to take measures to protect and promote the diversity of cultural expressions, and impose obligations at both domestic and international levels on Parties. The Convention is open to accession by non-Member States of UNESCO and regional economic integration organizations.
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 towards consumers, customers, and/or competitors; discriminatory behavior; and limiting production, markets or technical development to the detriment of consumers. (RA 10667, 2015)
Acquisition	Refers to the purchase of securities or assets, through contract or other means, for the purpose of obtaining control by: (1) One entity of the whole or part of another; (2) Two or more entities over another; or (3) 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 (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 No. 9729, 2009)
Adaptive Social Protection	Adaptive social protection focuses on the potential of linking social protection, DRRM and 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. (DSWD & FAO, Establishing an Adaptive and Shock Responsive Social Protection System in the Philippines)
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. (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, 2018)
Advanced Manufacturing Center	The DOST's 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 (Advanced Manufacturing Center Website)
Advanced Mechatronics, Robotics, and Industrial Automation Laboratory	AMERIAL 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.)
Agricultural and Biosystems Engineering Management Information System	An inventory system for agricultural and fisheries machineries and infrastructure projects developed by the DA-BAFE to provide reliable and credible agri-fishery information down to the ground level. The inventory system evolved to include registration, result-based and real-time monitoring, geo-mapping and spatial analytics. [DA-BAFE]
Agricultural supply chain	Refers to the system encompassing all the activities, organizations, actors, technology, information, resources and services involved in producing agri-food products for consumer markets. It covers agricultural upstream and downstream sectors from the supply of agricultural inputs (such as seeds, fertilizers, feeds, medicines, or equipment) to production, post-harvest handling, processing, transportation, marketing, distribution, and retailing. (OECD/FAO, 2016)
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. [FAO]
Agri-tourism	Involves an agricultural-based operation or activity that draws visitors to a farm, ranch or any natural sites for outdoor recreational activities, education, shopping or even lodging. [Spire Research and Consulting]
Agro-forestry	A collective name for land-use systems and technologies where woody perennials (e.g., trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence. It can also be defined as a dynamic, ecologically-based, natural resource management system that, through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels. [FAO]
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 No. 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. [IRRI]

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)
ANAHAW Philippine Sustainable Tourism Certification	Developed by the Center for Appropriate Technology (GrAT) together with the DOT, this aims to mainstream sustainable tourism and energy efficient operations in the tourism sector in the country. (Department of Tourism)
Ancestral Domain	All areas generally belonging to indigenous cultural communities (ICCs) and indigenous peoples (IPs) comprising lands, inland waters, coastal areas, and natural resources held under a claim of ownership, occupied or possessed by ICCs/IPs, by themselves or through their ancestors, communally or individually since time immemorial, continuously to the present except when interrupted by war, force majeure or displacement by force, deceit, stealth or as a consequence of government projects or any other voluntary dealings entered into by government and private individuals/corporations, and which are necessary to ensure their economic, social and cultural welfare. (RA No. 8371, 1997)
Aquaculture	The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. [FAO]
Artificial Intelligence	The science and engineering of making intelligent machines that is concerned with getting computers to do tasks that would normally require human intelligence.
Augmented Reality	The addition of images or enhanced digital content overlaying the physical world. This can be introduced in the visual field or another sense such as audition and sound. More developed applications lead to a fusion of the physical and virtual worlds into one reality which can be experienced via an head-mounted display. (International Telecommunication Union)
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 No. 11201, 2018)
Bank Runs	A run on a bank 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. When a run comes, a bank must quickly increase its cash to meet depositors' demands. It does so primarily by selling assets, often hastily and at fire-sale prices. As banks hold little capital and are highly leveraged, losses on these sales can drive a bank into insolvency. (EconLib, 2018)
Barrier-Free Tourism	A program of the Department of Tourism 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 UNCPRD 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. (Department of Tourism)
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 Order 35, s. 2017, Revised Guidelines on the Implementation of the Basic Education Facilities Fund)
Basic necessities	Goods vital to the needs of consumers for their sustenance and existence such as, but not limited to, rice, corn, root crops, bread; fresh, dried or canned fish and other marine products; fresh pork, beef and poultry meat; fresh eggs; potable water in bottles and containers; fresh and processed milk; fresh vegetables and fruits; locally manufactured instant noodles; coffee; sugar; cooking oil; salt; laundry soap and detergents; firewood; charcoal; household liquefied petroleum gas and kerosene; candles; drugs classified as essential by the Department of Health. (RA 10623, 2013)
Basic sanitation	Status of a community wherein households, schools, child development centers, and public institutional facilities have their own sanitary toilets that are functional; and communities properly manage animal excreta and properly dispose their solid waste, in addition to maintaining the norm that open defecation is unacceptable.
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. (Batas Pambansa Blg. 220)
Bid-rigging	Occurs when competitors coordinate their actions to manipulate the outcome of a bidding process to their benefit. (Philippine Competition Commission)
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. (United Nations)
Big Data Analytics	Big data analytics is the use of advanced analytic techniques against very large, diverse big data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes from terabytes to zettabytes. (IBM)
Biodiversity	The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. (UN Convention on Biological Diversity, n.d.)
Biodiversity-friendly enterprises	Economic activities and practices of micro, small, and medium enterprises, that promote the sustainable use of biological resources, create wealth and value, and open opportunities for the equitable sharing of benefits among stakeholders. (DENR-BMB Technical Bulletin No. 2017-01)
Blockchain	A digital ledger in which transactions, e.g., for Bitcoin and cryptocurrency, are timestamped and recorded chronologically and publicly. (United Nations)
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. (United Nations)
Broadband	The 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.
Budget and Treasury Management System	An integrated and fully-automated platform for a sustainable Government Resource Planning solution. (Department of Budget and Management, 2019)
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).
Business Satisfaction Survey	This measures the satisfaction score of Government to Business transactions, gives insights on meeting business expectations, and identifies priorities for improving the quality of frontline government service delivery experience. (Development Academy of the Philippines, n.d.).
Capital Adequacy Ratio	Capital adequacy ratios are 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. Applying minimum capital adequacy ratios serves to protect depositors and promote the stability and efficiency of the financial system. (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 GHG emissions (World Resources Institute & 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 (United Nations 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)
Certificate of Land Ownership Award	A documentary evidence of ownership of the land granted or awarded to the beneficiary by DAR, which contains the restrictions and conditions provided for in the "Comprehensive Agrarian Reform Law of 1988" and other applicable laws. [RA No. 6657]
Children	Refers to persons below eighteen (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 (Republic Act (RA) No. 7610)
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, 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 No. 11898, 2022)
Citizen Satisfaction Survey	This measures the satisfaction score of Government to Citizens transactions, gives insights on meeting business expectations, and identifies priorities for improving the quality of frontline government service delivery experience. (Development Academy of the Philippines, n.d.).
Citizens Participatory Audit	A mechanism of constructive engagement between citizens and government in conducting public audits and capacity building activities, to uphold the people's primordial right to a clean government and the prudent utilization of public resources. (Commission on Audit, 2021)
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 No. 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. [DA AMIA]

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.[UNEP Copenhagen Climate Centre]
Cloud kitchen	A food production facility that allows customers to order online and delivers food only in the form of a takeaway, i.e., no dine in. (Choudhary, 2019)
Collaborative R&D 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 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% 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 (Science for Change Program website).
Common Equity Tier 1	It is the highest quality of regulatory capital, as it absorbs losses immediately when they occur. Additional Tier 1 capital (AT1) also provides loss absorption on a going-concern basis. (Bank for International Settlements)
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 airports	Airports that are used primarily for general aviation.
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)
Community Fish Landing Centers	Facilities that houses post-harvest equipment and tools that will enable fisherfolk to preserve the good quality of their fish and fishery products, which they could sell for a higher price. It also serve as venues for skills trainings on disaster-resilient fisheries-based livelihoods and resource management, such as monitoring fish catch and stock assessment. [DA-BFAR]
Community-based Forest Management Agreements	Production sharing agreement between the DENR and the participating people's organization for a period of 25 years, renewable for another 25 years, and shall provide tenurial security and incentives to develop, utilize and manage specific portions of forest lands. [DENR]
Competitive neutrality	One of the key elements of the National Competition Policy, which recognizes that GOCCs 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 No. 1 on the National Competition Policy, 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, and guidelines of the HLURB by which the developer of the main project can fulfill and satisfy the balanced housing development. (HLURB Resolution No. 965, s. 2017)

Comprehensive Automotive Resurgence Strategy	The program is being implemented by the 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 towards 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 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 Development Plan	A multi-sectoral development plan which serves as an action plan of every local government unit. It consolidates programs and projects necessary to carry out the objectives of different development sectors. (RA No. 7160, 1991)
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 No. 7160, 1991).
Comprehensive Roadmap for the Electric Vehicle Industry (CREVI)	The CREVI refers to a national development plan for the 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: 1) EVs and charging stations component; 2) Manufacturing component; 3) Research and development component; and 4) 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 Conflict Sensitivity and Peace Promotion (CSPP) in the Comprehensive Development Plan (CDP) of LGUs in Conflict-Affected and Conflict-Vulnerable Areas)
Conflict-affected communities	
Contingent liabilities	Payment obligation whose occurrence, timing, and amount depend on uncertain future events or circumstances.
Co-opBiz	An online platform for transaction and delivery of agricultural products of cooperatives. [CDA]
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.
Corruption Perceptions Index	It assesses and ranks countries and territories by their perceived levels of public sector corruption through a score from 0 to 100, where 0 is considered highly corrupt and 100 is very clean. (Transparency International, 2022)
Creative Educational Plan	The plan to be established by the Department of Education, Commission on Higher education, Technical Education and Skills Development Authority towards 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 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 Philippine Creative Industries Development Council that contains a list of specific activities in the creative industries that may qualify for incentives. (RA 11904, 2022)
Credit Database	It is a database which contains financial statement information and default information of borrowers, collected from banks and credit guarantee associations on an anonymized basis. It has been utilized by FIs to measure and analyze the credit risks of borrowers. At the same time, it has been used by the financial regulator to monitor credit risks at a macro level. (JICA, 2019)
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. (National Cybersecurity Plan, 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; UN Culture of Peace Program of Action, 1999)
Curative care	Comprises health care contacts during which the principal intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury, or to protect against exacerbation and/or complication of an illness and/or injury that could threaten life or normal function.
Current health expenditure	Final consumption of health care goods and services by households, government, and non-profit institutions.
Customer-centered	Putting customer needs at the center of a strategy or initiative. It prioritizes the customer experience and uses customer needs or problems to guide every facet of operations, such as in product development and in the marketing plan.
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). (National Cybersecurity Plan, 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. (National Cybersecurity Plan, 2022)
Decommissioning	A process that includes activities aimed at achieving a smooth transition for the former combatants to productive civilian life. (Framework Agreement on the Bangsamoro, Annex on Normalization)
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	A digital bank 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 information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities.
Digital Economy	The 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 information and communication technology (ICT) sector spurs economic growth. (Philippine Statistics Authority)
Digital Skills	Digital skills refer 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 NHA, SHFC, HDMF, and GFIs.
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 No. 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)
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)
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)
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)
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 No. 10121, 2009)

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)
E-Commerce	The sale or purchase of goods and services, whether between businesses, households, individuals, governments, and other public or private organisations, conducted over computer-mediated networks. The goods and services are ordered over those networks, but the payment and the ultimate delivery of the good or service may be conducted on or offline. (Philippine Statistics Authority)
Economic rent	Income derived from ownership or control over a limited asset or resource.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (UN Convention on Biological Diversity, n.d.).
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 No. 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)
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.
eKadiwa	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. [DA]
El Nino-Southern Oscillation	A recurring climate pattern involving changes in the temperature of waters in the central and eastern tropical Pacific Ocean. On periods ranging from about three to seven years, the surface waters across a large swath of the tropical Pacific Ocean warm or cool by anywhere from 1°C to 3°C, compared to normal. This oscillating warming and cooling pattern, referred to as the ENSO cycle, directly affects rainfall distribution in the tropics and can have a strong influence on weather across the United States and other parts of the world. El Niño and La Niña are the extreme phases of the ENSO cycle; between these two phases is a third phase called ENSO-neutral. (US National Oceanic and Atmospheric Administration, n.d.)
Electric vehicle	A vehicle with at least 1 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).

Emergency	Unforeseen or sudden occurrence, especially danger, demanding immediate action. (RA 10121, 2010)
Emerging and re-emerging infectious diseases	Emerging infectious diseases (EIDs) 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 (RIDs) 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)
Employment Rate	The proportion of employed persons to the total labor force (LFS Technical Notes, PSA)
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)
Enterprise-based Training (EBT)	Enterprised-Based Programs are training program being implemented within companies/firms. These programs can be any of the following: Apprenticeship program, Learnership Program, and Dual Training System. (TESDA)
Entrepreneurship	The process by which individuals or a group of individuals (entrepreneurs) exploit a commercial opportunity, either by bringing a new product or process to the market, or by substantially improving an existing good, service, or method of production. This process is generally organized through a new organization (a start-up company), but may also occur in an established small business that undergoes a significant change in product or strategy.
Environmental, Social, 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.
e-Participation Index	A supplementary index to the UN E-Government Survey. It 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”). (United Nations, 2016)
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 nongovernmental organizations reports), including events related to the occurrence of disease in humans, and events related to potential exposure for humans/
Exclusive Economic Zone	The area beyond and adjacent to the territorial sea which shall not exceed beyond 200 nautical miles from the baseline as defined under existing laws. [UN]
Expenditure on Education	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). (UNESCO Institute for Statistics)

Exposure	The degree to which the elements at risk are likely to experience hazard events of different magnitude (RA No. 10121, 2009)
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 No. 11898, 2022)
Farm and Fisheries Clustering and Consolidation Program	A program which seeks to advance the inrest 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 AO No. 27, s. 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 (WHO, 1985)
Feeder airports	Airports that serve towns with limited passenger traffic, and are intended for use by piston aircraft, the range and capacity of which are highly suitable for this kind of service.
Financial Literacy	Financial literacy is 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 Inclusion Survey)
Financial risk protection	The ability to consume or access needed quality healthcare services without experiencing undue financial hardship
First 1000 days	The period of a child's life, spanning the nine months in the womb starting from conception to the first 24 months of life, which is considered to be the critical window of opportunity to promote health and development and prevent malnutrition and its life-long consequences. (RA 11148, 2018)
Fishery Management Areas	A bay, gulf, lake or any other fishery area which may be delineated for fishery resource management purposes (Fisheries AO No. 263)
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)
Former violent extremists	Former members of Abu Sayaff Group, Maute Group, Daulah Islamiya, and Bangsamoro Islamic Freedom Fighters
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)
Freight	The price paid to a ship owner for the transport of goods or merchandise by sea from one specific port to another. The word freight is also used to denote goods which are in the process of being transported from one place to another.
Fully immunized children	Infants who received one dose of Bacillus (or Bacille) Calmette-Guerin (BCG), 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)

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 (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% of all 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 (United Nations)
Geographic Information System for Agricultural and Fisheries Machinery and Infrastructure	An interactive web mapping application that displays information on farm-to-market road projects. It includes information on agri-fishery machinery and rural infrastructure projects, such as irrigation, postharvest facilities, fisheries facilities, livestock facilities and renewable energy, among others. [DA-BAFE]
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 (apps) 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. (ILO) Characterized by independent contracting, contingent work, with variable hours and payment on a piece-work basis (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 ondemand 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 towards their country of residence), and Multicultural(ism)/intercultural(ism) (positives attitudes towards ethnic/racial minorities). (UNESCO Institute for Statistics)
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 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.
Global Value Chain	The full range of activities (design, production, marketing, distribution and support to the final consumer, etc) that are divided among multiple firms and workers across geographic spaces to bring a product from its conception to its end use and beyond. (UNIDO)
Good Conduct Time Allowance (GCTA) 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: (1) registered with or directly supervised by the Bangko Sentral ng Pilipinas; or (2) 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 and the Social Security System. (RA No. 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. (Development Academy of the Philippines, 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 No. 10771, 2016)
Green Energy Auction Program (GEAP)	The Green Energy Auction Program (GEAP) was undertaken 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 (GEOP)	The Green Energy Option Program (GEOP) is a Renewable Energy (RE) policy mechanism which shall provide 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 No. 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, 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 2018-02)
Green, Social, and Sustainability Bonds	Bonds issued which fund projects which 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 – such as levees 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 (GOMP)	The GOMP of the National Grid Corporation of the Philippines (NGCP) 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 NGCP aligned to the Planned Outage of the power generation facilities.
Gross Domestic Product	GDP represents the monetary value of all final goods and services produced within the economy in a given period of time. (Philippine Statistics Authority)
Gross expenditure on R&D (GERD)	The sum of financial resources used for the execution of research and development (R&D) works in the country by the public sector and by the business enterprise sector.
Gross Value-Added	The value of output less the value of intermediate consumption. Gross Value Added 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. (Philippine Statistics Authority)
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, 2022)
Harmonized Gender and Development Guidelines	A standard tool in gender mainstreaming that has checklists 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 towards 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 No. 9003)
Health care financing	Consists of the policies and arrangements that a country has for: revenue sources and contribution mechanisms; pooling of funds; purchasing of services; policies on benefit design, rationing, and the basis for entitlement; 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 2005-02)
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. (Philippine Health Facility Development Plan 2020-2040)

Health information system	A system that integrates data collection, processing, reporting, and use of the information necessary for improving health service effectiveness and efficiency through better management at all levels of health services. It encompasses all health data sources including: health facility and community data; electronic health records for patient care; population-based data; human resources information; financial information; supply chain information; and surveillance information, along with the use and communication of this information.
Health literacy	A competency allowing the access, appraisal, and application of health information when making judgment concerning healthcare, disease prevention, and health promotion.
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 JAO 2005-02)
Health-seeking behavior	Any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy.
Healthy setting	A settings-based approaches to health promotion, involving a holistic and multi-disciplinary method which integrates action across risk factors. The goal is to maximize disease prevention via a "whole system" approach. Key principles include community participation, partnership, empowerment and equity.
High capacity transportation	A broader perspective of high capacity vehicles (HCV) that includes the entire transport system; entails the use of heavier and longer vehicles. (ITF, 2019)
Holiday Economics	Policy allows certain movable holidays to be observed on a Monday or Friday to allow long weekends during the year. Based on RA 9492 (2007) and presidential proclamations (e.g. Presidential Proclamation No. 42: Declaring the regular Holidays and Special Non-Working Holidays in 2023.
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 No. 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 No. 965, s. 2017)
Human Capital	Consists of the knowledge, skills, and health that people invest in and accumulate throughout their lives, enabling them to realize their potential as productive members of society.
Inclusive innovation	The creation of new and quality products, processes, and services aimed at improving the welfare of low-income and marginalized groups, including women, as well as the advancement of micro, small and medium enterprises (MSMEs).

Inclusive Learning Resource Center of Learners with Disabilities (ILRC)	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)
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)
Indigenous Peoples	A group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, became historically differentiated from the majority of Filipinos. [RA No. 8371]
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, 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).
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. (NSCB Resolution No. 11 Series of 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 No. 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

Innovation Startup Act	The law provides benefits and programs to strengthen, promote and develop the Philippine startup ecosystem. (RA 11337, 2018)
Insurtech	InsurTech can be described as the innovative use of technology in insurance and is a subset of FinTech, or financial technology. 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. (NAIC, 2022)
Integrated Business Permits and Licensing System	A software that enables local government units and their constituents to apply and process building permits and occupancy permits electronically. (Anti-Red Tape Authority, 2020)
Integrated Forest Management Agreement	Production sharing contract entered into by and between the DENR and a qualified applicant wherein the DENR grants to the latter the exclusive right to develop, manage, protect and utilize a specified area of forestland and forest resources therein for a period of 25 years and may be renewed for another 25-year period, consistent with the principle of sustainable development and in accordance with an approved Comprehensive Development and Management Plan (CDMP) and under which both parties share in its produce. [DENR-FMB]
Integrated Marine Environment Monitoring System Project	A project which aims to significantly improve and extend existing vessel monitoring system capabilities and operationalize a Single Integrated National Marine Environment Monitoring System that is financially viable and scalable over the long term and will support and enable compliance of various Conservation and Management Measures being implemented in the Philippines waters, Exclusive Economic Zone, other Coastal States. [DA-BFAR]
Integrated Water Resources Management (IWRM)	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, 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. (Office of the Ombudsman, 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 (IGR) 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, Bangsamoro Organic Law)
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 airports	Airports capable of handling international flights, including airports that are currently serving or have previously served international destinations.

International large-scale assessments (ILSAs)	International large-scale assessments (ILSAs) 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)
Internet of Things	A global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies. (International Telecommunication Union, 2012).
Interoperability	When systems and devices can exchange data and interpret that shared data.
Inter-Tropical Convergent Zones	The region that circles the Earth, near the equator, where the trade winds of the Northern and Southern Hemispheres come together.
IP Management	A system that helps manage intangible products such as creations of the mind and human intellect. It covers awareness raising, protection, commercialization, and enforcement.
Justice Sector Coordinating Council	An inter-agency body composed of the Judiciary, the Department of Justice, the Department of the Interior and Local Government, 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 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 National Housing Authority (NHA), National Home Mortgage Finance Corporation (NHMFC), Home Development Mutual Fund (HDMF), and the Social Housing Finance Corporation (SHFC). (RA No. 11201, 2018)
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 R&D intensive 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 & 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. (LFS Technical Notes, PSA)
Labor Force Participation Rate	The proportion of total labor force to the total household population 15 years and over (LFS Technical Notes, PSA)

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 LMI, Education and Communication materials. The material is part of the commitment of the 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)
Labor Market Interventions	Labour market interventions aim 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. (2019 Revised Social Protection Operational Framework (SPOF))
Labor Productivity	Measured as the ratio of Gross Domestic Product to total employment (national estimate) or the ratio of Gross Value Added to industry employment (industry estimate). (Philippine Statistics Authority)
Land Administration	The processes of determining, recording, and disseminating information about the tenure, value, and use of land when implementing land management policies. These involve regulating land and property development and the use and conservation of land, the gathering of revenues from the land through sales, leasing and taxation, and the resolving of conflicts concerning the ownership and use of land. (UN Economic Commission for Europe, 1996)
Legatum Prosperity Index (LPI)	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.
Lifelong learning	Encompasses learning throughout the life cycle, from birth to grave and in different learning environments, formal, non-formal and informal. (World Bank)
Limited Sanitation Service Level	Use of improved sanitation facilities shared with two or more households. (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 Listahanan info kit)
Local Climate Change Action Plan	An action plan formulated by the LGUs to address climate change concerns. The LCCAP focuses on both climate change adaptation and mitigation and describes how LGUs plan to respond to climate change and mainstream such into local development plans (DILG-LGA, 2017)
Local Culture and Arts Council	This council to be established by all local government units in coordination with the Philippine Creative Industries Development Council and the Department of Interior and Local Government 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, 2022.
Local peace engagements	The process which aims to strengthen capacities of national and local governance actors to effectively address socio-economic 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 (NTF-ELCAC Local Peace Engagement Guidebook)

Local Special Bodies	Refers to the Local Development Council, Local Health Board, Local School Board, and Local Peace and Order Council. (Department of the Interior and Local Government, 2022)
Low-Skills Services	The International Standard Classification of Occupations 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)
LPI-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. (Legatum Institute, 2021)
LPI-Political Accountability	The degree to which the public can hold public institutions accountable, considering the degree of political pluralism and other accountability mechanisms. (Legatum Institute, 2021)
Lupong Tagapamayapa	A peace-making body organized in every barangay to administer Katarungang Pambarangay and composed of the punong barangay as chairman, with a minimum of ten and a maximum of 20 members.
Macro-Prudential Measures	Macroprudential policies are typically classified either as those that manage systemic risks across different segments of the financial market or those that can create systemic risks over periods of time. With the former, the objective is to address structural imbalances at any point in time among the different financial market components. In the latter, the issue is whether incentives/regulations create risk behaviors that build up over time which, in the judgement of the authorities, should not be allowed to be sustained over prolonged periods. (BSP, 2020)
Malikhaing Pinoy Creative Market Acceleration Program	One of the four initiatives under the Malikhain Pinoy Program of the Department of Trade and Industry, which will, among other things, 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)
Mandanas-Garcia ruling	This significantly expands the tax base for local government units’ (LGUs) share in national taxes to include not only national internal revenue taxes but also customs duties and fees.
Mariculture	Farming of marine organisms for food and other products such as pharmaceuticals, food additives, jewelry (e.g., cultured pearls), nutraceuticals, and cosmetics, either in the natural marine environment, or in land- or sea-based enclosures, such as cages, ponds, or raceways.
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 Presidential Decree No. 474, Series of 1974, or the Maritime Industry Decree of 1974 to steer the country’s maritime industry towards 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. (Executive Order 159, Series of 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. The Executive Order No. 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 NAVIS software and incorporation of the necessary models and concepts related to maritime transportation (DOST)
Market-driven	Learning and reacting to a market taken as a given and as influencing the structure of the market and/or behavior of market players in a direction that enhances the competitive position of a product or an enterprise.
Markets	Any place where makers, distributors or retailers sell, and consumers buy. It may also refer to the whole group of buyers for a good or service.
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 No. 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)
Metric ton	Weight measurement equivalent to 2,204.6 lbs. or 1,000 kilograms
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)
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	In essence, 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. The most significant difference between conventional insurance and microinsurance is the size of the premium and the insured amount. (NAIC, 2022)

Micro-Prudential Measures	According to the Basel Core Principles for Effective Banking Supervision (Basel Committee for Banking Supervision, 2011), the “ultimate objective” of supervision (i.e., microprudential policy) is to promote the “safety and soundness of banks and the banking system. In general, microprudential policies 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 (IMF, 2013)
Minimum access volume	Volume of a specific agricultural product that is allowed to be imported with a lower tariff as committed by the Philippines to the World Trade Organization under the Uruguay Round Final Act. (RA 11203, 2019)
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 No. 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 No. 9729, 2009)
Mixed Reality	Mixed reality is a blend of physical and digital worlds, unlocking natural and intuitive 3D human, computer, and environmental interactions. This new reality is based on advancements in computer vision, graphical processing, display technologies, input systems, and cloud computing.
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)
Modern family planning	Includes: oral contraceptive pills; female and male sterilization; IUD; injectables; implants; condom; and, natural FP methods such as cervical mucus, basal body temperature method (BBT), symptothermal method, standard days method (SDM) and lactational amenorrhea method (LAM).
Modernizing Government Regulations (MGR)	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. (Development Academy of the Philippines)
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	It is the pledging of movable or intangible assets, such as vehicles, livestock, manufacturing equipment, inventory, or receivables, as collateral for loans. (USAid, 2021)
Movable Collateral Registry System	A collateral registry is 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 Department of Tourism. (Department of Tourism)
Mutual Recognition Arrangements (MRAs)	Mutual Recognition Arrangements (MRAs) are framework arrangements established in support of liberalising and facilitating trade in services. MRAs aim to facilitate mobility of professionals/ skilled labor in ASEAN. Through exchange of information, MRAs also work towards the adoption of best practices on standards and qualifications. (ASEAN)

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 (CCC Resolution No. 2019-001)
National Climate Risk Management Plan	The document formulated and implemented by the Office of Civil Defense (OCD) that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives (RA No. 10121, 2009)
National Competition Policy (NCP)	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: (1) pro-competitive policies and government interventions; (2) competitive neutrality; and (3) enforcement of competition-related laws and issuances.
National Effort for the Harmonization of Efficient Measures of Inter-related Agencies (NEHEMIA)	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. (Anti-Red Tape Authority)
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 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 Innovation Agenda and Strategy Document (NIASD)	Outlines the country's 10-year vision and long-term goals to improve innovation governance and raise overall productivity.
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 NIS are done with support from irrigators associations (IA).
National Justice Information System	A 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 No. 793)
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 (ISFs) 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 LGUJs, 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”. The NTP, as embodied in NEDA Board Resolution No. 5 s. 2017, “Approving the National Transport Policy”, was adopted by the NEDA Board on 27 June 2017. It was published in general circulation on 14 February 2018. (NEDA, 2021) 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 towards the realization of the Transport Vision. The INFRACOM, during its 14 December 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.
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 (NGAs), Local Government Units (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 (United Nations Framework Convention on Climate Change, n.d.).
Natural Capital Accounting	Natural capital accounting (NCA) is 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. NCA covers accounting for individual environmental assets or resources, both biotic and abiotic (such as water, minerals, energy, timber, fish), as well as accounting for ecosystem assets (e.g. forests; wetlands), biodiversity and ecosystem services (United Nations Statistics Division Definition, n.d.)
Nature-based solutions	Actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits. (IUCN)
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	The term negentropy is an abbreviation of “negative entropy”. It is also called syntropy. Negentropy 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	The NICER Program aims to address the disparity in access to R&D funding among the regions. Through the program, qualified Higher Education Institutions (HEIs) in the regions are provided with grants so they can undertake quality research directed at promoting regional development with their existing capabilities and resources. A proposed NICER should be unique, a collaborative project between HEIs, and must be duly endorsed by the Regional Development Council (RDC) to ensure its socio-economic impact in the region (Science for Change Program website).
Night-rating	Night-Rating is 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 (VMC).
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	These are nonmonetary financial institutions, classified into government and private, with or without quasi-banking functions. 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. The three major classifications of NBFIs are private nonbank financial intermediaries, government nonbank financial institutions, and private nonbank thrift institutions. Investment houses, financing companies, securities dealers and brokers, investment companies, fund managers, lending investors, pawnshops, private insurance companies, venture capital corporations, and money brokers comprise private nonbank financial intermediaries. Government nonbank financial institutions, on the other hand, consist of the Government Service Insurance System (GSIS), Social Security System (SSS), National Home Mortgage Finance Corporation, Philippine Veterans Investment Development Corporation, and National Development Corporation. Private nonbank thrift institutions, meanwhile, are composed of mutual building and loan associations and nonstock savings and loan associations. (PSA, 2011)
Noncommunicable 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 NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.
Non-Performing Loan	NPL refers to loan accounts whose principal and/or interest is unpaid for thirty (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 No. 9275, 2004)
Non-tariff measure	A policy measure other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both. (United Nations Conference on Trade and Development, 2010)

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. (UNESCO Institute for Statistics)
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 (Consortium of Non Traditional Security Studies in Asia)
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, Annex on Normalization)
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 Website).
Open Budget Index	A component of the Open Budget Survey that assesses public's access to timely and comprehensive budget information. (International Budget Partnership, n.d.)
Open Contracting Data Standards	A country commitment to the OGP, which pertains to the mandatory publication of contracting data (from planning to implementation) in machine-readable formats. (Open Government Partnership, n.d.)
Open Data Philippines	An online repository of open data from different government agencies.
Open educational resources (OER)	Electronic/digital resources and tools for learning in open document format and released under an intellectual property licence allowing free use, adaptation and distribution. (User manual for the implementation of the new UIS Survey on Statistics of Information and Communication Technology (ICT) in Education)

Open Financing	This refers to leveraging on and sharing of customer-permissioned data among banks, pother financial institutions, and 3rd 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 3rd 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. (BIS, 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)
Paris Agreement	A legally binding international treaty on climate change. Adopted by 196 Parties in 2015, its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. (United Nations Framework Convention on Climate Change, n.d.)
Participatory Governance Metrics	A diagnostic tool to assess the quality or substantiveness of participation in government programs or platforms. (Medina-Guce, 2022).
Patent	An exclusive right granted for a new, inventive, & 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 (PES)	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)
Peacebuilding	The development of constructive personal, group, and political relationships across ethnic, religious, class, national, and racial boundaries which aims to resolve injustice in non-violent ways and to transform the structural conditions that generate deadly conflict (Kroc Institute for International Peace Studies)
People-centered care	An approach to health care that aims to achieve better outcomes for individuals, families, communities, health practitioners, health care organizations and health systems by promoting a) a culture of care and communication; b) responsible, responsive and accountable services and institutions; and c) supportive health care environments.
People's Survival Fund	Special fund in the National Treasury for the financing of adaptation programs and projects based on the National Strategic Framework on Climate Change (RA 10174, 2012).
Performance-based grant	An intergovernmental transfer that seeks to incentivize improvements in performance by linking the sub-national government's performance in pre-determined areas with the access to and the size of funding

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 (Executive Order No. 163, s.2022)
Persons with Disability (PWD)	Persons who have long term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society in equal basis with others. (IRR of R.A. 10524)
Philippine Competition Act	The primary law of the Philippines for promoting and protecting fair market competition.
Philippine Conventional Energy Contracting Program (PCECP)	The PCECP is 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 the PCECP, awarding of service contracts are conducted either through the competitive selection process or via nomination. The PCECP local road shows are scheduled to be held in Palawan on 20 September, Davao on 27 September and Zamboanga in October 2018.
Philippine Creative Cities Network	This is a permanent program of the Philippine Creative Industries Development Council that shall serve as an avenue of mutual support, exchange of ideas, and collaboration among the country's cities. (RA11904, 2022)
Philippine Good Regulatory Principles (PGRP)	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. (Anti-Red Tape Authority, 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 Innovation Act	Republic Act (RA) No. 11293 otherwise known as the "Philippine Innovation Act" was signed by President Rodrigo R. Duterte on April 17, 2019. The law mandates the creation of the National Innovation Council (NIC) that will steer the whole-of-government coordination and collaboration and to remove the fragmentation in the country's innovation governance. It aims to promote a culture of strategic planning and innovation in the country through improving innovation governance and adopting long-term goals. The Act recognizes the richness of the country's resources and culture and the ways these can be harnessed to further innovation and entrepreneurship. Among others, it seeks to explore, promote, and protect the potentials for innovation of traditional knowledge, traditional cultural expressions, and genetic resources.
Philippine Open Government Partnership	Pertains to the membership of the Philippines to the Open Government Partnership, which is operationalized in the country since 2011.
Philippine Skills Framework Initiative	The PSF builds upon the partnership among national government agencies and a key outcome of the signed MOU in 2019 between DTI, TESDA, and Skills Future Singapore to cooperate on human capital development and the reskilling and upskilling of the workforce. (Department of Trade and Industry)
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. (Department of Tourism)
PM 10	Particulate Matter (PM) with diameters less than 10 micrometers (RA No. 8749, 1991)

PM 2.5	PM with diameters less than 2.5 (RA No. 8749, 1991)
Point source	Any identifiable source of pollution with specific point of discharge into a particular water body (RA No. 9275, 2004)
Pooling	A health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually. Its main purpose is to share the financial risk associated with health interventions for which there is uncertain need.
Population-based health services	These are interventions such as health promotion, disease surveillance, and vector control, which have population groups as recipients.
Port	An area where ships may anchor or tie up for shelter, repair, loading or discharge of cargo, and any activity related to water-borne commerce, including all the land and water areas and the structures, equipment, and facilities connected with these functions.
Poverty incidence	The proportion of families/individuals with per capita income/expenditure less than the per capita poverty threshold to the total number of families/individuals
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.
Preparedness	Pre-disaster actions and measures being undertaken within the context of disaster risk reduction and management and are based on sound risk analysis as well as pre-disaster activities to avert or minimize loss of life and property such as, but not limited to, community organizing, training, planning, equipping, stockpiling, hazard mapping, insuring of assets, and public information and education initiatives. This also includes the development/enhancement of an overall preparedness strategy, policy, institutional structure, warning and forecasting capabilities, and plans that define measures geared to help at-risk communities safeguard their lives and assets by being alert to hazards and taking appropriate action in the face of an Imminent threat or an actual disaster. (RA No. 10121, 2009)
Pre-service Teacher Training	Recognised and organised, private and public educational programmes 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 recognised training standards and are enrolled in a teacher training course to earn accreditation concurrent to their work as a teacher. (UNESCO Institute for Statistics)
Preventive care	Prevention is any measure that aims to avoid or reduce the number or the severity of injuries and diseases, their sequelae and complications (Pomey et al., 2000). Prevention is based on a health promotion strategy that involves a process to enable people to improve their health through the control over some of its immediate determinants. This includes a wide range of expected outcomes, which are covered through a diversity of interventions, organised as primary, secondary and tertiary prevention levels.
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 Department of Health. (RA 10623, 2013)
Principal airports	Airports that only serve domestic destinations.
Principal Class 1 airports	Principal airports capable of serving jet aircraft with a capacity of at least 100 seats.
Principal Class 2 airports	Principal airports capable of serving propeller aircraft with a capacity of at least 19 seats.
Program to Institutionalize Meritocracy and Excellence in Human Resource Management	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
Progressive Star-Rating System	A three-level recognition scheme of the DOT for Primary Tourism Enterprises entailing progressive minimum standards and reflecting customers expectations.
Protected Area	Refers to identified portions of land and/or water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation. (RA No. 11038, 2018)
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]
Province-wide and City-wide Health Systems (P/CWHS)	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 P/ CWHS.
Public Employment Service Office	is a non-fee charging multi-dimensional employment service facility or entity established in all LGUs in coordination with the DOLE pursuant to R.A. No. 8759 or the PESO Act of 1999 as amended by R.A. No. 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: (1) 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) A chemical attack or accidental release; (v) A nuclear attack or accident; or (vi) An attack or accidental release of radioactive materials; and, (2) 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 Management Development Program	Aims to foster professionalism in government and promote stability in the bureaucracy by producing a corps of development-oriented, competent, dedicated and honest government senior executives and middle managers within the medium term. (Development Academy of the Philippines, n.d.)
Public Utility Vehicle Service Contracting Program (PUV SCP)	Introduced under Republic Act 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 PUV operators depending on vehicle number of trips (Republic Act No. 11494)
Public-Private Partnership (PPP)	A contractual arrangement between the government and the private sector to deliver public infrastructure and/or public services.
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 (PMI by S&P Global).
R&D Leadership	The 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 (Science for Change Program website).
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 (REI/RNI)	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 Philippine Dietary Reference Intakes)
Regional Inclusive Innovation Centers	A network of innovation agents that collaborate to commercialize market-oriented research towards the competitiveness of the region, which aims to generate better employment opportunities, more entrepreneurial activities, and sustainable economic prosperity in the country's regions. (Department of Trade and Industry)

Regtech	Regulatory technology (regtech) refers to the use of technology—particularly information technology— for regulatory implementation, compliance, and monitoring; it is used by regulators, supervisors, market participants, infrastructure providers, and others. In other words, regtech encompasses the industry's use of technology to address regulation and compliance requirements, and supervisors' use of technology for supervision of regulatory and compliance requirements (often called supervisory technology or suptech). 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)
Regulatory Sandbox Framework	The regulatory sandbox is 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 BSP-supervised financial institutions (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. This approach intends to accelerate the end-to-end process of the testing period and is generally shorter compared to the entire regulatory sandbox process. Regulatory requirements and expectations that will be temporarily lifted shall be identified by the Bangko Sentral on a case-by-case basis, taking into account the merits of the proposed activity as well as the associated risks (BSP, 2022)
Renewable Portfolio Standards (RPS)	RPS is 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.
Research and development (R&D)	Creative work undertaken on a systematic basis to produce knowledge that can be used to generate new technologies and innovations
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 No. 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 (IPCC, 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. 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	Refer 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 No. 9003, 2001)

Retail Competition and Open Access (RCOA)	RCOA allows contestable customers to decide which electricity suppliers to source power from. The establishment of 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.
Rightsizing	Allows the government to review the quality of its service delivery and facilitates the development of a bureaucracy that can keep up with changing demands and technologies. (Department of Budget and Management, 2005)
Risk	The combination of the probability of an event and its negative consequences (RA No. 10121, 2009)
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 ro-ro freight ferries, multipurpose ro-ro carriers, car carriers, rail/vehicle ferries and car/passenger ferries.
Roll-on/roll-off vessels	Specially designed vessels for carrying trailers, cars and other rolling equipment which is discharged through the bow or stern ramps or both.
RORO facilities	Port facilities consisting of RORO ramps with reinforced concrete (RC) pier, causeway, passenger terminal building, and parking area
Roro ports	Ports with RORO facilities for receiving RORO vessels
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	Safe spaces are 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)
Salinization	An increase in the total dissolved solids (TDS) of the aquifer caused by natural or anthropogenic factors. (Venkatramanan et.al., 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	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)
School-Governing Council	School-Governing Council is 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. (Department of Education)

Science and Technology Parks	Encompasses any kind of high technology cluster such as technopolis, science park, science city, cyber park, industrial park, innovation center, research and development (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 (Senate Bill No. 1944).
Science for Change Program	The Science for Change Program (S4CP) was 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 (Science for Change Program website).
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 (EU COM 614, 2015)
Sedimentation	A process of deposition of a solid material from a state of suspension or solution in a fluid.
Self-reliant defense posture program	The development of a national defense industry by incentivizing in-country enterprises and rationalizing defense acquisition (SB 2113, 17th Congress; SB 1871, 18th Congress)
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 2018-2019 ENNS)
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	They refer to machinery, equipment, tools, systems accessories and other auxiliary items, skills, and knowledge that are being provided by the Department of Trade and Industry 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 & FAO, Establishing an Adaptive and Shock Responsive Social Protection System in the Philippines)
Shocks	A disturbance causing instability, harm, or damage
Significant Market Power (SMP)	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 BJMP, BPP, and PPA. The system will serve as an exchange portal among the three agencies and with the Inmate Management Information System of BUCOR.

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 website).
Social and behavior change communication	A research-based, consultative process that uses communication to promote and facilitate behavior change and support the requisite social change for the purpose of improving health outcomes. To achieve social and behavior change, SBCC is driven by epidemiological evidence and client perspectives and needs. SBCC is guided by a comprehensive ecological theory that incorporates both individual level change and change at broader environmental and structural levels.
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. (2019 Revised SPOF)
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 determinants of health	Non-medical factors that influence health outcomes; the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These include economic policies and systems, development agendas, social norms, social policies and political systems.
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. (2019 Revised SPOF)
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 Resolution No. 1, s. 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.(International Labour Organization)
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 (WorldBank)
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 (2019 Revised SPOF)

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 No. 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 No. 9003, 2000)
Space Science and Technology Applications	The scientific principles and their applications to space science, engineering and other allied fields (RA No. 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
STEM	Stands for science, technology, engineering and mathematics and refers to any subjects that fall under these four disciplines.
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 Supreme Court's plan of action to address institutional challenges using four guiding principles for the Judiciary's delivery of justice:(1) timely and fair, (2) transparent and accountable, (3) equal and inclusive, and (4) 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 farming	Form of farming in which nearly all of the crops or livestock raised are used to maintain the farmer and the farmer's family, leaving little, if any, surplus for sale or trade. [Britannica]
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 No. 2 Series of 2007)

Sugar Block Farm	Consolidation of small farms including farms of agrarian reform beneficiaries, as one larger farm, with a minimum area of thirty (30) hectares within a two-kilometer radius, to take advantage of the economies of scale in the production of sugarcane, such that activities in the small farms are aligned and implemented to ensure the efficient use of farm machineries and equipment, deployment of workers, volume purchase of inputs, financing and other operational advantages, as well as recognition by sugar mills, government financial institutions, private investors, but the ownership of each small farm remains with the land owners. [RA No. 10659]
Supply Chain Financing	It is 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. (ICC)
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, s. 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 No. 11898, 2022)
Sustainable Finance	This 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. The governance of public and private institutions – including management structures, employee relations and executive remuneration – plays a fundamental role in ensuring the inclusion of social and environmental considerations in the decision-making process. (European Commission, 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 (World Bank, 2021).
Sustainable Land Management	The use of land resources, including soils, water, animals, and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions. (UN Earth Summit, 1992)
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. (UNWTO)
Tariff	A tax levied on a commodity imported from another country. It earns revenues for the government and regarded as instruments to promote local industries by taxing their competitors. The benefit is accorded to the local producers by the maintenance of a domestic price at a level equal to the world price plus the tariff. (RA 11203, 2019)
Technology	The application of scientific knowledge for practical purposes, such as in industry, healthcare and medicine, environment, and other areas of human life.

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 Local Government Unit (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.
Traceability	The ability to follow the movement of a food through specified stages of production, processing and distribution. (RA 10611, 2013)
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)
Transnational crime	Offenses whose inception, perpetration, and/or direct or indirect effects involve more than one country. (UNODC)
Transnational Higher Education	Transnational higher education (TNHE) 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 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)
Transport Accreditation Permit and Pass for Ports (TAPPP)	Serves as a single certificate of accreditation (CA), permit to operate (PTO), 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 Administrative Order No. 01 - 2022)
Triple burden of disease	Simultaneous high prevalence of communicable diseases, noncommunicable diseases, and health conditions related to rapid urbanization and industrialization.
Triple burden of malnutrition	Refers to undernutrition, micronutrient deficiencies, and overweight. (UNICEF, 2019)
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. (LFS Technical Notes, PSA)
Underemployment Rate	The proportion of underemployed persons to total employed person (LFS Technical Notes, PSA)

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	Unemployed consists of persons in the labor force who are reported as (1) without work; and (2) currently available for work; and (3) 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 (LFS Technical Notes, PSA)
Unimproved Sanitation Service level	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines. (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	In the UHC Act, refers to a conceptual framework based on the WHO's three dimensions of universal health coverage: population coverage, service coverage, and financial coverage.
Universal logistics pass (ULP)	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 local government units (ARTA, 2022)
Unmet need for family planning	The number of fecund women who are married or in consensual unions, and who either do not want any more children or want to delay the next child, but are not using any method of family planning expressed as a percentage of all women who are married or in a consensual union.
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. (USDA, 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. (Oh, 2005 as cited in NEDA, 2019)
Urban Development and Housing (UDHA) Act	This mandates the State to undertake, in cooperation with the private sector, a comprehensive and continuing Urban Development and Housing Program. (RA No. 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	Agriculture value chain finance provides a set of financial instruments that can be applied for agribusinesses at different stages, which helps smallholders 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 venture capital fund is 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)
Vessel	Includes any ship or boat or any description of a vessel or boat, or any artificial contrivance used or capable of being used as a means of transportation on water. (QMS, 2016)
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)
Virtual Reality	A technology that replicates an environment, real or imagined, and simulates a user's physical presence and environment to allow for user interaction. Virtual reality artificially creates a sensory experience, which in principle can include sight, touch, hearing, and smell. The current virtual reality devices primarily present content to the visual and auditory systems. On occasion, haptics information is also included. (International Telecommunication Union)
Vulnerability	This refers to the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity (RA No. 9729, 2009).
Vulnerable employment	This includes the Vulnerable self-employed and unpaid family workers
Warehouse Receipts Financing	Warehouse receipt financing is 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 No. 9003, 2000)
Wasting	A reduction or loss of body weight in relation to height. (World Health Organization, 2014)
Water Cycle	Also called hydrologic cycle, it is a cycle that involves the continuous circulation of water in the Earth-atmosphere system. Of the many processes involved in the water cycle, the most important are evaporation, transpiration, condensation, precipitation, and runoff. Although the total amount of water within the cycle remains essentially constant, its distribution among the various processes is continually changing.
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 No. 9275, 2004)

Plan Steering Committee (PSC) Members

Chair

Secretary Arsenio M. Balisacan, PhD
National Economic and Development Authority

Members

President Ferdinand R. Marcos, Jr.
Department of Agriculture

Secretary Amenah F. Pangandaman
Department of Budget and Management

Vice President Sara Z. Duterte
Department of Education

Secretary Ma. Antonia Yulo-Loyzaga
Department of Environment and Natural Resources

Secretary Benjamin E. Diokno, PhD
Department of Finance

Secretary Benjamin C. Abalos
Department of Interior and Local Government

Secretary Bienvenido E. Laguesma
Department of Labor and Employment

Secretary Manuel M. Bonoan
Department of Public Works and Highways

Secretary Maria Esperanza Christina Garcia-Frasco
Department of Tourism

Secretary Alfredo E. Pascual
Department of Trade and Industry

OIC Jose C. Faustino, Jr.
Department of National Defense

Advisory Committee Members

Kelly Bird, PhD

Country Director, Asian Development Bank

Ndiamé Diop, PhD

Country Director, World Bank

Jikyeong Kang, PhD

President and Dean, Asian Institute of Management (AIM)

Kenneth Cobonpue

Entrepreneur

Gov. Dakila Carlo E. Cua

President, Union of Local Authorities of the Philippines
National Chairman, League of Provinces of the Philippines

George Barcelon

Chairman, Philippine Chamber of Commerce and Industry

Sabin Aboitiz

Convenor, Private Sector Advisory Council
President and Chief Executive Officer, Aboitiz Group

Emil Q. Javier, PhD

National Scientist, National Academy of Science and Technology

Christopher Monterola, PhD

Professor and Head, AIM Aboitiz School of Innovation,
Technology, and Entrepreneurship

Editorial Team

Rosemarie G. Edillon, PhD

Undersecretary, PPG

Carlos Bernardo O. Abad Santos

Undersecretary, RDG

Sarah Lynne S. Daway-Ducanes, PhD

Assistant Secretary, PPG

Joseph J. Capuno, PhD

Undersecretary, IPG

Reynaldo R. Cancio

Supervising Officer, PPG

Planning Committees

PLANNING COMMITTEE ON HUMAN AND SOCIAL DEVELOPMENT (CHAPTERS 4.1, 4.2, 4.3 AND 5.2)

Planning Committee Chair: Department of Education

Member Agencies:

Department of Health (DOH)

Department of Human Settlements and Urban Development (DHSUD)

Department of Social Welfare and Development (DSWD)

Commission on Higher Education (CHED)

Council for the Welfare of Children (CWC)

Department of Agriculture (DA)

Department of Budget and Management (DBM)

Department of Agrarian Reform (DAR)

Department of Information and Communications Technology (DICT)

Department of Interior and Local Government (DILG)

Department of Labor and Employment (DOLE)

Department of Science and Technology (DOST)

Department of Migrant Workers (DMW)

Presidential Commission on the Urban Poor (PCUP)

National Nutrition Council (NNC)

National Anti-Poverty Commission (NAPC)

National Youth Commission (NYC)

Philippine Commission on Women (PCW)

Commission on Population and Development (POPCOM)

Technical Education and Skills Development Authority (TESDA)

Office of the President – Office of Executive Secretary (OP-OES)

Philippine Health Insurance Corporation (PhilHealth)

Department of Public Works and Highways (DPWH)

Department of Environment and Natural Resources (DENR)

Philippine National Volunteer Service Coordinating Agency (PNVSCA)

Philippine Statistics Authority (PSA)

Department of Foreign Affairs (DFA)

National Economic and Development Authority (NEDA)

CHAPTER 2.1: BOOST HEALTH

Planning Subcommittee Chair: Department of Health

Member Agencies:

Department of Information and Communication Technology (DICT)

Commission on Population and Development (POPCOM)

Philippine Health Insurance Corporation (PhilHealth)

Department of Science and Technology - Food and Nutrition Research Institute

(DOST-FNRI)

National Nutrition Council (NNC)

Philippine Statistics Authority (PSA)

University of the Philippines - National Institutes of Health (UP-NIH)

Department of Science and Technology - Philippine Council for Health Research and Development (DOST-PCHRD)

Department of Labor and Employment (DOLE)
 Commission on Higher Education (CHED)
 Professional Regulation Commission (PRC)
 Department of Migrant Workers (DMW)
 Department of Budget and Management (DBM)
 Department of the Interior and Local Government (DILG)
 Department of Agriculture (DA)

National Economic and Development Authority (NEDA)
 Department of Public Works and Highways (DPWH)
 House of Representative - Congressional Policy and Budget Research Department (HR-CPBRD)

CHAPTER 2.2: IMPROVE EDUCATION AND LIFELONG LEARNING

Planning Subcommittee Chair: Department of Education

Member Agencies:

Commission on Higher Education
 Technical Skills and Development Authority
 Department of Information and Communication Technology
 Early Childhood Care and Development Council
 Department of Science and Technology - Science Education Institute
 Department of Labor and Employment
 Philippine Statistics Authority

Philippine Normal University
 Department of Public Works and Highways
 Professional Regulation Commission
 House of Representative - Congressional Policy and Budget Research Department
 National Council on Disability Affairs
 National Commission on Indigenous Peoples
 Department of Trade and Industry
 National Economic and Development Authority

CHAPTER 2.3: ESTABLISH LIVABLE COMMUNITIES

Planning Subcommittee Chair: Department of Urban Settlements and Urban Development

Member Agencies: Department of Public Works and Highways
 Climate Change Commission
 National Water Resources Board
 Office of the Civil Defense
 Presidential Commission on the Urban Poor
 Department of Transportation
 Department of Interior and Local Government
 Department of Energy
 Metropolitan Manila Development Authority
 National Commission on Indigenous People
 Department of Trade and Industry

Department of Tourism
 Department of Environment and Natural Resources
 DOST - Philippine Council for Industry, Energy, and Emerging Technology Research and Development
 Department of Health
 Department of Labor and Employment
 Department of Information and Communications Technology
 Local Water Utilities Administration
 Philippine Sports Commission
 National Economic and Development Authority

CHAPTER 3.1 ENSURE FOOD SECURITY AND PROPER NUTRITION

Planning Committee Chair: National Economic and Development Authority

Planning Committee Vice Chair: Department of Agriculture

Member Agencies:

Department of Trade and Industry

Department of Finance

Department of Agrarian Reform

Department of Budget and Management

Department of Environment and Natural Resources

Department of Labor and Employment

National Nutrition Council

Food and Nutrition Research Institute

Philippine Council for Agriculture, Aquatic and Natural Resources

Philippine Crop Insurance Corporation

Philippine Guarantee Corporation

Philippine Institute for Development Studies

Philippine Statistics Authority

Cooperative Development Authority

Food and Drug Administration

Land Bank of the Philippines

Technical Education and Skills Development Authority

Senate of the Philippines - Senate Economic Planning Office

HoR - Congressional Policy and Budget Research Department

CHAPTER 3.2 STRENGTHEN SOCIAL PROTECTION

Planning Subcommittee Chair: Department of Social Welfare and Development

Member Agencies:

Department of Labor and Employment

Department of Budget and Management

Department of Interior and Local Government

Department of Information and Communications Technology

Council for the Welfare of Children

Government Service Insurance System

League of Municipalities of the Philippines

National Anti Poverty Commission

National Youth Commission

Philippine Commission on Women

Social Security System

Department of Health

League of Provinces of the Philippines

Employees Compensation Commission

League of Cities of the Philippines

National Council on Disability Affairs

National Commission on Indigenous Peoples

Office of the Civil Defense

Philippine Health Insurance Corporation

Philippine Statistics Authority

Philippine Charity Sweepstakes Office

Philippine National Police

National Economic and Development Authority

HoR - Congressional Policy and Budget Research Department

CHAPTER 4: INCREASE INCOME EARNING ABILITY

Planning Committee Chair: Department of Labor and Employment

Member Agencies:

Commission on Higher Education
 Technical Education and Skills Development Authority
 Department of Trade and Industry
 Department of Information and Communications Technology
 National Youth Commission
 Philippine Institute for Development Studies
 Department of Education

National Wages and Productivity Commission
 Department of Agriculture
 Department of Science and Technology
 Philippine Commission on Women
 Philippine Statistics Authority
 National Economic and Development Authority
 Professional Regulations Commission

CHAPTER 5: MODERNIZE AGRICULTURE AND AGRIBUSINESS

Planning Committee Chair: Department of Agriculture
 Planning Committee Vice Chair: Department of Agrarian Reform

Member Agencies:

Department of Environment and Natural Resources
 Department of Trade and Industry
 Department of Science and Technology - Food and Nutrition Research Institute (DOST-FNRI)
 Department of Science and Technology - Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)
 Department of Labor and Employment
 Department of Finance
 Department of Budget and Management
 Cooperative Development Authority
 Food and Drug Administration

HoR - Congressional Policy and Budget Research Department
 Land Bank of the Philippines
 National Economic and Development Authority
 National Nutrition Council
 Philippine Crop Insurance Corporation
 Philippine Guarantee Corporation
 Philippine Institute for Development Studies
 Philippine Statistics Authority
 Senate of the Philippines - Senate Economic and Planning Office
 Technical Education and Skills and Development Authority

CHAPTER 6: REVITALIZE INDUSTRY

Planning Committee Chair: Department of Trade and Industry

Member Agencies:

Bureau of Trade and Industry Policy Research
 Bureau of Small and Medium Enterprise Development
 Technical Education Skills and Development Authority
 Intellectual Property of the Philippines
 Department of Environment and Natural Resources - Mines and Geosciences Bureau
 Department of Labor and Employment
 Department of Science and Technology

Department of Interior and Local Government
 Philippine Institute for Development Studies
 Senate of the Philippines - Senate Economic Planning Office
 HoR
 Philippine Council for Industry, Energy and Emerging Technology, Research and Development
 Bangko Sentral ng Pilipines
 Competitiveness Bureau
 Philippine Accreditation Bureau

Bureau of Philippine Standards
 Cooperative Development Authority
 Philippine Economic Zone Authority
 Department of Energy
 Department of Agriculture
 Bureau of Fisheries and Aquatic Resources
 Philippine Statistics Authority
 Development Bank of the Philippines
 Congressional Policy and Budget Research
 Department
 Competitiveness and Innovation Group
 Consumer Policy and Advocacy Bureau
 Consumer Protection Group

Board of Investments
 Bureau of International Trade Relations
 Department of Education
 Commission on Higher Education
 Philippine Trade Training Center
 Anti-Red Tape Authority
 DTI - Planning and Management Service
 Construction Industry Authority of the Philippines
 Department of Environment and Natural Resources
 DTI - Small Business Corporation
 National Economic and Development Authority

CHAPTER 7: REINVIGORATE SERVICES

Planning Committee Chair: Department of Trade and Industry

Member Agencies:

National Commission for Culture and the Arts
 Department of Information and Communications
 Technology*
 Department of Labor and Employment*
 Tourism Infrastructure and Enterprise Zone Authority
 Department of Transportation*
 Maritime Industry Authority
 Civil Aviation Authority of the Philippines
 Technical Education and Skills Development Authority
 Philippine Institute for Development Studies
 Congressional Policy and Budget Research
 Department*
 Senate Economic Planning Office

Bangko Sentral ng Pilipinas
 Board of Investments
 DTI – Digital Philippines Office
 DTI – Export Marketing Bureau
 Philippine Ports Authority
 Civil Aeronautics Board
 National Telecommunications Commission
 Design Center of the Philippines
 Department of Tourism
 Philippine Economic Zone Authority
 Philippine Statistics Authority
 National Economic and Development Authority

CHAPTER 8: ADVANCE RESEARCH & DEVELOPMENT, TECHNOLOGY, AND INNOVATION

Planning Committee Chair: Department of Science and Technology

Member Agencies:

Department of Environment and Natural Resources
 Department of Budget and Management
 Commission on Higher Education

Department of Information and Communications
 Technology
 Department of Interior and Local Government
 Department of Foreign Affairs

Department of Labor and Employment
Intellectual Property Office of the Philippines
National Economic and Development Authority
Office of the President
Department of Trade and Industry
Department of Agriculture

Department of Health
Department of Transportation
Department of Energy
Department of National Defense
Department of Education
Philippine Space Agency

CHAPTER 9: PROMOTE TRADE AND INVESTMENTS

Planning Committee Chair: Department of Trade and Industry

Member Agencies:

Department of Agriculture
Department of Foreign Affairs
Department of Finance
Department of Science and Technology
Department of Labor and Employment
Department of Information and Communications Technology
DTI- Bureau of International Trade Relations
DTI- Bureau of Import Services
DTI- Export Marketing Bureau
DTI-Bureau of Domestic Trade Promotion
DTI-Strategic Trade Management Office
Board of Investments
Philippine Economic Zone Authority

Bangko Sentral ng Pilipinas
Bureau of Customs
Philippine Institute for Development Studies
Philippine Statistics Authority
Tariff Commission
Securities and Exchange Commission
Export Development Council
National Security Council
Philippine Space Agency
National Economic and Development Authority
Congressional Policy and Budget Research Department
Senate Economic Planning Office

CHAPTER 10: PROMOTE COMPETITION AND IMPROVE REGULATORY EFFICIENCY

Planning Committee Chair: Philippine Competition Commission

Member Agencies:

Department of Justice - Office for Competition
Department of Trade and Industry - Consumer Protection Group
Government Procurement Policy Board
Development Academy of the Philippines
Department of Finance
Anti-Red Tape Authority

Governance Commission for GOCCs
University of the Philippines — College of Law
Department of Information and Communications Technology
National Economic and Development Authority

CHAPTER 11.1: PROMOTE AND INNOVATIVE, INCLUSIVE, AND HEALTHY FINANCIAL SECTOR

Planning Committee Chair: Bangko Sentral ng Pilipinas

Member Agencies:

Securities and Exchange Commission
Philippine Statistics Authority
Government Service Insurance System
Cooperative Development Authority
Land Bank of the Philippines
DTI - Small Business Corporation
SEC - Microfinance NGO Regulatory Council
Social Security System
Insurance Commission

Philippine Deposit Insurance Commission
Department of Trade and Industry
Development Bank of the Philippines
DOF – PhilGuarantee
Overseas Filipino Bank
Department of Finance
Home Development Mutual Fund or Pag-IBIG Fund
National Anti-Poverty Commission

CHAPTER 11.2: ENSURE SOUND FISCAL MANAGEMENT AND IMPROVE THE TAX REGIME

Planning Committee Chair: Department of Finance

Member Agencies:

Bureau of the Treasury
Bureau of Customs
Bureau of Internal Revenue

Bureau of Local Government Finance
Department of Budget and Management
National Economic and Development Authority

CHAPTER 12: EXPAND AND UPGRADE INFRASTRUCTURE

Planning Committee Chair: Department of Public Works and Highways

Member Agencies:

Office of Executive Secretary
Public-Private Partnership Center
Department of Trade and Industry
Department of Information and Communications Technology
Department of Budget and Management

Department of Transportation
Department of Energy
Department of Tourism
Department of Agriculture
Department of Finance

CHAPTER 13.1: ENSURE PEACE AND SECURITY

Planning Committee Chair: Department of Defense

Member Agencies:

National Security Council

Department of the Interior and Local Government

Department of Information and Communication Technology

National Coast Watch Council Secretariat

Philippine Center for Transnational Crimes

Office of the Presidential Adviser on Peace, Reconciliation and Unity

Philippine National Police

Department of Foreign Affairs

Commission on Human Rights

Dangerous Drugs Board

Anti-Terrorism Council - Project Management Center

Philippine Statistics Authority

Bureau of Fire Protection

Armed Forces of the Philippines

Philippine Coast Guard

BARMM-Bangsamoro Planning and Development Authority

CHAPTER 13.2: ENHANCE ADMINISTRATION OF JUSTICE

Planning Committee Chair: Supreme Court of the Philippines

Member Agencies:

Department of Justice (Co-Chair)

Department of Interior and Local Government

Commission on Human Rights

Bureau of Jail Management and Penology (under DILG)

Bureau of Corrections (under DOJ)

Public Attorney's Office (under DOJ)

Office for Alternative Dispute Resolution (under DOJ)

Philippine National Police (under DILG)

Dangerous Drugs Board

CHAPTER 14: PRACTICE GOOD GOVERNANCE AND IMPROVE BUREAUCRATIC EFFICIENCY

Planning Committee Chair: Department of Budget and Management

Planning Committee Vice Chair: Department of the Interior and Local Government

Member Agencies:

Anti-Red Tape Authority

Civil Service Commission

Commission on Audit

Development Academy of the Philippines

Department of Information and Communications Technology

Governance Commission for GOCCs

National Economic and Development Authority

Office of the Ombudsman

Union of Local Authorities

Resource Agencies:

Career Executive Service Board

Commission on Elections

House of Representatives

Philippine Statistics Authority

Senate of the Philippines

CHAPTER 15: ACCELERATE CLIMATE ACTION AND STRENGTHEN DISASTER RESILIENCE

Planning Committee Chair: Department of Environment and Natural Resources

Member Agencies:

Department of Budget and Management
Department of the Interior and Local Government
Department of Science and Technology
Philippine Institute for Development Studies
Climate Change Commission
Philippine Statistics Authority
Department of Public Works and Highways
Securities and Exchange Commission
Department of Labor and Employment
Department of Human Settlements and Urban Development
Department of Agriculture

Department of Energy
Department of Tourism
Department of Transportation
Office of Civil Defense
Department of Finance
Department of Trade and Industry
Bangko Sentral ng Pilipinas
Philippine Space Agency
Insurance Commission
Senate Economic Planning Office
Congressional Policy and Budget Research Department

PLANNING COMMITTEE ON CULTURE AND VALUES

Planning Committee Chair: National Commission on Culture and Arts

Member Agencies:

Commission on Higher Education
Department of Education
Department of Tourism
Department of Trade and Industry - Design Center of the Philippines
Film Development Council of the Philippines

Movie and Television Review and Classification Board
National Commission on Indigenous People
National Commission on Muslim Filipinos
Office of the Press Secretary
Technical Education Skills and Development Authority
National Economic and Development Authority

PLANNING COMMITTEE ON GENDER AND DEVELOPMENT

Planning Committee Chair: Philippine Commission on Women

Member Agencies:

Bangko Sentral ng Pilipinas
Department of Agrarian Reform

Department of Agriculture
Department of Education
Department of Environment and Natural Resources

Department of Finance
 Department of Health
 Department of Human Settlements and Urban Development
 Department of Justice
 Department of Labor and Employment
 Department of Migrant Workers
 Department of National Defense

Department of Public Works and Highways
 Department of Science and Technology
 Department of Social Welfare and Development
 Department of Trade and Industry
 National Economic and Development Authority
 Philippine Competition Commission

PLANNING COMMITTEE ON MIGRATION AND DEVELOPMENT

Planning Committee Chair: Department of Migrant Workers

Member Agencies:

Bangko Sentral ng Pilipinas
 Union of Local Authorities of the Philippines
 Commission on Filipinos Overseas
 Overseas Filipino Bank
 Commission on Higher Education
 Overseas Workers Welfare Administration
 Council for the Welfare of Children
 Philippine Commission on Women
 Department of Foreign Affairs – Office of Migrant Workers Affairs
 Philippine Health Insurance Corporation
 Department of Justice – Inter-Agency Council Against Trafficking
 Philippine Retirement Authority

Department of Labor and Employment
 Department of Science and Technology
 Professional Regulation Commission
 Department of Social Welfare and Development
 Social Security System
 Technical Education and Skills Development Authority
 Home Development Mutual Fund
 Department of Trade and Industry
 Department of Health
 National Economic and Development Authority
 Department of Interior and Local Government
 Bureau of Immigration
 Philippine Institute for Development Studies
 Philippine Statistics Authority

TECHNICAL WORKING GROUP (TWG) ON POPULATION AND DEVELOPMENT

TWG Chair: Commission on Population and Development

Member Agencies:

National Economic and Development Authority
 Philippine Institute of Development Studies

Philippine Statistics Authority
 University of the Philippines Population Institute
 United Nations Population Fund

TECHNICAL WORKING GROUP (TWG) ON CHILDREN'S RIGHTS

TWG Chair: Council for the Welfare of Children
TWG Co-Chairs: National Economic and Development Authority
United Nations Children's Fund (UNICEF)

Member Agencies:	Department of Social Welfare and Development - Juvenile Justice and Welfare Council
National Youth Commission	National Nutrition Council
Early Childhood Care and Development Council	
Department of Social Welfare and Development	

DBCC SUB-COMMITTEE ON THE SUSTAINABLE DEVELOPMENT GOALS (SC-SDG)

Lead Agency/Chair: National Economic and Development Authority

Co-Chair: Department of Budget and Management

Member Agencies:	Department of Science and Technology
Climate Change Commission	Department of Transportation
Department of Agriculture	Department of Social Welfare and Development
Department of Agrarian Reform	Department of Trade and Industry (DTI)
Department of Environment and Natural Resources	House of Representatives (HOR)
Department of Foreign Affairs	National Nutrition Council (NNC)
Department of Education	Office of Civil Defense (OCD)
Department of Human Settlements and Urban Development	Philippine Commission on Women (PCW)
Department of Information and Communications Technology	Philippine Institute for Development Studies (PIDS)
Department of Interior and Local Government	Office of the Executive Secretary
Department of Energy	Commission on Population and Development (POPCOM)
Department of Finance	Philippine Statistics Authority (PSA)
Department of Health	Philippine Statistical Research and Training Institute (PSRTI)
Department of Labor and Employment	Senate of the Philippines

SUB-PLANNING COMMITTEE ON CONNECTIVITY

Chair: Department of Transportation (DOTr)

Co-Chair: Department of Transportation (DOTr)

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)

Poros Point Management Corporation (PPMC)

Subic Bay Metropolitan Authority (SBMA)

Toll Regulatory Board (TRB)

University of the Philippines – National Center for Transportation Studies (UP-NCTS)

University of the Philippines – 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)

Philippine National Oil Company (PNOC)-Renewables Corporation

Philippine National Oil Company (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)

Department of Agriculture (DA) - Bureau of Soils and Water Management (DA-BSWM)

Department of Energy (DOE)

Department of Environment and Natural Resources (DENR)

Department of Environment and Natural Resources - River Basin Control Office (DENR-RBCO)

Department of Health (DOH)

Department of Tourism (DOT)

Department of 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)

University of the Philippines - National Hydraulic Research Center (UP-NHRC)

Drafting Team

Managing Consultants

Clarissa C. David, PhD
Ronald U. Mendoza, PhD

Research Assistant

Gabrielle Ann S. Mendoza

PDP Drafting Team/Consultants

2.1	Boost Health	MIHARU JAY M. KIMWELL
2.2	Improve Education and Lifelong Learning	ALEX B. BRILLANTES, JR., PhD
2.3	Establish Livable Communities	SUSAN RACHEL G. JOSE
3.1	Ensure Food Security and Proper Nutrition	FERNANDO T. ALDABA, PhD
3.2	Strengthen Social Protection	MARITES M. TIONGCO, PhD
4	Increase Income Earning Ability	LAWRENCE B. DACUYCUY, PhD
5	Modernize agriculture and agri-business	EUFEMIO T. RASCO, JR., PhD
6	Revitalize Industry	FRANCIS MARK A. QUIMBA, PhD
7	Reinvigorate Services	MARIA CHERRY LYN S. RODOLFO, PhD
8	Advance Research & Development, Technology, and Innovation	NAPOLEON K. JUANILLO, JR., PhD
9	Promote Trade and Investments	ANNETTE O. BALAOING-PELKMAN, PhD
10	Promote Competition and Improve Regulatory Efficiency	ATTY. JOSE GERARDO O. ALAMPAY
11.1	Promote an Innovative, Inclusive, and Healthy Financial Sector	ENGR. EDGAR RICHARD B. TRONO
11.2	Ensure sound fiscal management and improve the Tax Regime	MILWIDA M. GUEVARA, PhD
12	Expand and Upgrade Infrastructure (Transport and Connectivity Water Energy	ARCH. FELINO 'JUN' A. PALAFOX, JR. GUILLERMO O. TABIOS III, PhD MAJAH-LEAH V. RAVAGO, PhD
13.1	Ensure Peace and Security	JENNIFER SANTIAGO-ORETA, PhD
13.2	Enhance Administration of Justice	ATTY. MCGYVER DORIA (Supreme Court)
14	Practice Good Governance and Improve Bureaucratic Efficiency	CZARINA CORAZON M. MEDINA-GUCE
15	Accelerate Climate Action and Strengthen Disaster Resilience	GEM B. CASTILLO, PhD

NEDA Chapter Focal

Part II. DEVELOP AND PROTECT CAPABILITIES OF INDIVIDUALS AND FAMILIES

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez II

Susan M. Carandang
Yuko Lisette R. Domingo
Xarina Dominique V. David
Michael Dominic Z. Padlan
Christine Joy O. Mamuyac

Chapter 2.1

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez II

Tomasito P. Javate Jr.
Maurene Ann D. Papa
Camille F. Rivera-Argana
Dorothy Camille M. Detabali
Celso S. Villaluz
Ron James D. Ortiz
Brian Richard G. Diaz
Sarah Mae M. De Castro

Chapter 2.2

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez II

Susan M. Carandang
Yuko Lisette R. Domingo
Xarina Dominique V. David
Michael Dominic Z. Padlan
Christine Joy O. Mamuyac

Chapter 2.3

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez II

Kevin M. Godoy
Aretha Janin O. Garcia
Dianne Jade D. Calay
Mary Jane M. Dela Rosa
Julius A. Casabal
Carygine V. Isaac
Roald Ray B. Taperla
Mark Angelo V. Cagampan
Likha Malai C. Alcantara
Rosauero L. De Leon
William G. Sese
Maria Eunice M. Gonzales

Infrastructure Staff

Maria Genelin L. Licos
Kevin Gilbert M. Manzano
Finella Jianna A. Villaluz

Chapter 3.1: Ensure Food Security and Proper Nutrition

Head: Director Nieva T. Natural

OIC - Assistant Director Rory Jay S. Dacumos

Eunice Chloe V. Calura
Mary Grace C. Lapurga
Jillian Kazumi V. Ipac
Reichelle C. Celorico
Dorothy D. Bantasan
John Kenneth V. Casabal

Director Girlie Grace J. Casimiro-Igtib
OIC - Assistant Director Edgardo S. Aranjuez II

Dorothy Camille M. Detabali
Jhoanne O. Mahilum

Chapter 3.2: Strengthen Social Protection

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez, II

Loida G. Panopio
April M. Mendoza
John Anthony U. Geronimo
Yuri M. Leomo
Marie Elaine A. Ceralde
Jhoanne O. Mahilum
Amabelle C. Quendangan
Juan Antonio N. Deleña

Chapter 4: Increase Income Earning Ability

Head: OIC - Director Desiree Joy O. Narvaez

Ivee L. Cabading
Rita Angela M. Rivera
Maria Antonette D. Pasquin

Chapter 5: Modernize Agriculture and Agribusiness

Head: Director Nieva T. Natural

OIC - Assistant Director Rory Jay S. Dacumos

Ralph Camelo E. Mariano
Alvin Caezar V. Olanday
Rodolfo S. De Gracia, Jr.
Jane Desiree F. Andal
Hazel Ann L. Alforja
Mari Fei C. Lagmay

Chapter 6: Revitalize Industry

Head: Director Bien A. Ganapin

Assistant Director Richard Emerson D. Ballester

Ms. Estrella R. Turingan
Mr. Antonio Jose G. Leuterio
Ms. Zara Fiel O. Sibulo

Chapter 7

Head: Director Bien A. Ganapin

Ma. Millicent Joy N. Urgel
Rodelyn L. Rodillas

Chapter 8

Head: OIC - Director Diane Gail Maharjan

Mar Jovette B. Laureta
Katrina Beatrice M. Atienza
Cheska R. Espino

Chapter 9

Head: Director Bien A. Ganapin

Asst. Director Richard Emerson D. Ballester

Ma. Cecilia Angela D. Labadan
Laura P. Lopez
Edward Martin B. Macasadia
Pocholo Luis S. Tolentino
Esther O. Kinuta
Vanessa M. Candido
Johnmark Gabriel G. Auza
Ma. Millicent Joy N. Urgel
Madelaine P. Monteramos

Chapter 10

Head: OIC - Director Reverie Pure G. Sapaen

OIC - Asst. Director Judith V. Gondra

Joy J. Divinagracia
Karen M. Resurreccion
Janice G. Utanes

Chapter 11.1: Promote and Innovative, Inclusive, and Healthy Financial Sector

Head: OIC - Director Desiree Joy O. Narvaez

Generose B. Manlangit

David Carlo C. Mangalindan

Gretchen Leah A. Montejo

Chapter 11.2: Ensure Sound Fiscal Management and Improve the Tax Regime

Head: OIC - Director Desiree Joy O. Narvaez

Rachel Lynn Y. Belandres

Rachelle Angela C. Ramos

Irene Angela V. Cuya

David Feliks M. Bunao

Chapter 12: Expand and Upgrade Infrastructure

Head: Director Kathleen P. Mangune

Assistant Director Francis Bryan C. Coballes

Physical Connectivity

Criselle S. Santos

Art Reagan M. Jarin

Luelle Renee C. Jingco

Marian Mae L. Mellizas

Charlene Chris R. Morales

Danela R. De Vera

Marina Irene Karana N. Ferrer

Vincent T. Malayao Rafael Angelo G. Samson

Patricia Celine C. Ordonio

Deniece Ryanna D. Del Rio

Althea Flokae C. Dam-mit

Digital Connectivity

Mary Ash Day O. Malimit

Reychiel L. Roxas-Lentiyas

Melorie DG. Lim

Fritz Kyle P. Licos

Eric B. Rañola

Water Resources

Geraldine B. Bayot
Jeremy John G. Borlongan
Nathania Rae Z. Cortes
Dave Paulo G. Zornosa
Fernando Victor A. Manicad III
Arianne Rose A. Santos

Energy

Edgar A. Basilio
Sheryl A. Borromeo
Armando M. Ramirez III
Raymond John C. Go
Bianca Yllana M. Dela Cruz

Social Infrastructure

Maria Genelin L. Licos
Kevin Gilbert M. Manzano
Gilbert V. Kintanar
Finella Jianna A. Villaluz

Chapter 13.1 Attain Peace and Security

Head: Director Remedios S. Endencia

Asst. Director Cynthia A. Villena

Fresita S. Araneta
Mark E. De las Alas
Marie Antonette T. Matibag
Nicollo Veo Alejandro M. Aragon

Chapter 13.2 Enhance Administration of Justice

Head: OIC - Director Reverie Pure G. Sapaen

OIC - Asst. Director Judith V. Gondra

Joy J. Divinagracia
Karen M. Resurreccion
Rod Norbert D. Mondoyo

Chapter 14: Practice Good Governance and Improve Bureaucratic Efficiency

Head: OIC - Director Reverie Pure G. Sapaen

OIC Asst. Director Judith V. Gondra

Mariane Genelou S. Reyes
Maria Angelica U. Sarinas (Focal)
Alfee Rei L. Galapon

Chapter 15

Head: Director Nieva T. Natural

OIC - Assistant Director Rory Jay S. Dacumos

Roald Ray B. Taperla
Carygine V. Isaac
Lara Gianna V. Hidalgo
Mark Angelo V. Cagampan
Julius A. Casabal
Mary Jane M. Dela Rosa
Mary Descery Joy B. Bongcac
Likha Malai C. Alcantara
Jessa Danica Villa L. Agcopra
Dominic E. Andrada
Jowell Angelo A. Banda
John Michael M. Cornito

Chapter 16

Lead: OIC - Director Aldwin U. Urbina

OIC - Director Desiree Joy O. Narvaez
OIC - Assistant Director Paul Andrew M. Tatlonghari

Christian Leny G. Hernandez
Karla Victoria S. Laqui
Mark Justine B. Gatdula
Raymond Paul G. Pineda

Planning Committee on Migration

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez, II

Loida G. Panopio
April M. Mendoza
John Anthony U. Geronimo
Yuri M. Leomo
Marie Elaine A. Ceralde
Jhoanne O. Mahilum
Amabelle C. Quendangan
Juan Antonio N. Deleña

Planning Committee on Culture

Head: OIC - Director Reverie Pure G. Sapaen

OIC - Assistant Director Judith V. Gondra

Maureen Jane B. Oreiro
Genshen L. Espedido
Maria Adela T. Maputi
Krishia Nathalie P. Zabala
Rochelle Anne P. Tabion

Technical Working Group on Population and Development

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez II

Tomasito P. Javate Jr.
Maurene Ann D. Papa
Camille F. Rivera-Argana
Dorothy Camille M. Detabali
Celso S. Villaluz
Ron James D. Ortiz
Brian Richard G. Diaz
Sarah Mae M. De Castro

Technical Working Group on Population and Development

Head: Director Girlie Grace J. Casimiro-Igtiben

OIC - Assistant Director Edgardo S. Aranjuez, II

Loida G. Panopio
April M. Mendoza
John Anthony U. Geronimo
Yuri M. Leomo
Marie Elaine A. Ceralde
Jhoanne O. Mahilum
Amabelle C. Quendangan
Juan Antonio N. Deleña

DBCC Sub-Committee on the Sustainable Development Goals (SC-SDG)

Head: OIC - Director Atty. Reverie Pure G. Sapaen

OIC - Assistant Director Judith V. Gondra
OIC - Division Chief Maureen Jane B. Oreiro

Rochelle Anne P. Tabion
Krishia Nathalie P. Zabala
Genshen L. Espedido
Maria Adela T. Maputi
Rocelle Angel M. Vallente

Development Information Staff

Nerrisa T. Esguerra

Director IV

Frances Fatima M. Cabana

Director III

Technical Editors

Cherry Lynn T. Zafaralla

Geralyn A. Rigor

Regine Joy E. Javier

Production Editors

Liezel M. Aldiano

Clarissa E. Escasinas

Louise O. Garcia

Ramon P. Logoc

Cherie Anne R. Quirante

Robert James T. Rodelas

Jhon Marvin R. Surio

Paul Cyril D. Torrente

Graphics, design, and layout

Charina I. Quiwa

Raissa P. Angeles

Erik Miguel D. Aguilar

Nikki B. Guevarra

Pauline Therese B. Quilala

Jana Thalia C. Alano

Overall Plan Secretariat

Desiree Joy O. Narvaez

OIC - Director, National Policy and Planning Staff

Melanie Grace A. Quintos

OIC - Assistant Director, National Policy and Planning Staff

Ivee L. Cabading

Chief Economic Development Specialist

Joshua B. Rabusa

PDP Support Staff

Rita Angela M. Rivera

Supervising Economic Development Specialist

Roni N. Cabrito

PDP Intern

Maria Antonette D. Pasquin

Senior Economic Development Specialist

Loretta T. Arboleda

Administrative Assistant III

Kathleen C. Pilapil

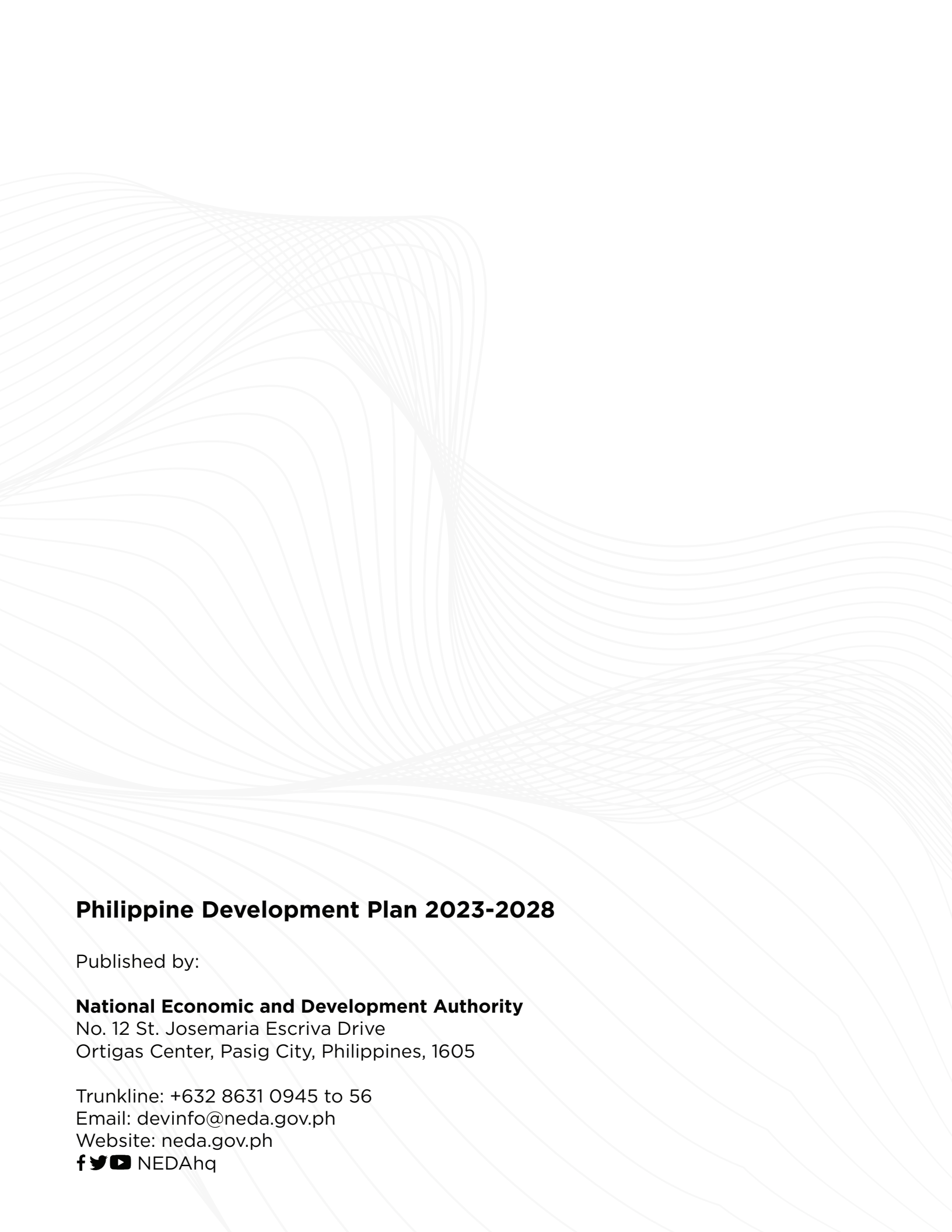
EDS II

Jezebel L. Estrada

Administrative Assistant I

Ken Aisa G. Ortiz

PDP Support Staff



Philippine Development Plan 2023-2028

Published by:

National Economic and Development Authority

No. 12 St. Josemaria Escriva Drive
Ortigas Center, Pasig City, Philippines, 1605

Trunkline: +632 8631 0945 to 56

Email: devinfo@neda.gov.ph

Website: neda.gov.ph

   NEDAhq