Philippine Development Plan

2017-2022

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Philippine Development Plan 2017-2022

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Foreword

In October last year, I signed Executive Order No. 5, approving and adopting *AmBisyon Natin 2040*, which represents the vision and aspirations of the Filipino people for a *matatag, maginhawa at panatag na buhay* (strongly-rooted, comfortable, and secure life) in the next 25 years. But to realize *AmBisyon Natin 2040*, the directive underscored the need for a "bold vision and effective development planning" based on a "forward-looking approach that goes beyond a single administration."

The Philippine Development Plan (PDP) 2017-2022 is the first medium-term plan anchored on this national long-term vision. It seeks to lay a stronger foundation for more inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. These priorities were guided by my 0+10-Point Socio-Economic Agenda, the regional consultations conducted by the various planning committees, and the social development summits that culminated in the 20@22 Agenda: *Malasakit at Pagbabago*.

Through this Plan, we will empower the poor and marginalized, push for improved transparency and accountability in governance, and fuel our economy. Specifically, we intend to make growth more inclusive by lowering poverty incidence in the rural areas, creating more jobs, making individuals and communities more resilient, driving innovation, and building greater trust in government and in society.

Reducing all forms of criminality and illegal drugs is also a priority as with enhancing peace and security. These are alongside our continued commitment to pursue infrastructure development and resolve to restore and protect our environment and natural resources.

The PDP 2017-2022 is our guide in policy formulation and implementation of development programs for the next six years. It is a result of a nationwide collaboration between the government, the private sector, and civil society. The input from each of these sectors was discussed extensively and considered in determining the appropriate strategies, policies, and interventions to address the needs of our country and the Filipino people.

Thus, I enjoin everyone to be a partner for authentic change. As we work toward the fruition of this Plan's objectives and the realization of *AmBisyon Natin 2040*, I seek your cooperation and commitment to making this country great and the life of every Filipino better.

RODRIGO ROA DUTERTE
President
Republic of the Philippines

Preface

The document you are holding is the product of endless discussions, months of collaboration, and more than its fair share of negotiation between various government agencies and concerned groups. Years' worth of research and data, as well as practical and theoretical expertise, have been brought together by the Philippines' economic and planning agency to fulfill the Constitutional provision to implement continuing, integrated, and coordinated programs and policies for national development. (**Section 9, Article VII**)

But while the National Economic and Development Authority (NEDA) takes the lead, the **Philippine Development Plan (PDP) 2017-2022** is actually the result of the combined effort of the government and the public.

Each chapter is written not only by NEDA staff but by a committee composed of government agencies and other concerned organizations. For example, the section on Culture and Values (**Chapter 7**, a new addition to the Plan), was the concerted effort of the various culture- and arts-related government agencies – from the NCCA and CCP to the MTRCB and even the DILG. Other new topics such as the National Spatial Strategy (**Chapter 3**), Swift and Fair Administration of Justice (**Chapter 6**), Reaching for the Demographic Dividend (**Chapter 13**), and Ensuring Security, Public Order, and Safety (**Chapter 18**) have also been written with input from subject matter experts and other concerned parties.

Hundreds of individuals were directly involved in writing this, organized into PCs (Plan Committees) that met regularly and reported back to their respective agencies. Add to these the Regional Development Council members who were consulted in a series of events held nationwide, as well as others from the academe and civil society who gave inputs.

The PDP 2017-2022 is also the first Plan with drafts uploaded on the NEDA website as early as January 9, 2017 for public comments by regular citizens – it is as public as it could get when it came to consultation.

This same kind of consultation was crucial in the articulation of the Filipino people's long-term vision, ***AmBisyon Natin 2040***. The hopes and dreams, gathered through an extensive survey of thousands of citizens, is what we set out to achieve (or at least get closer to) by the end of this plan period (2022). The vision of a population with "*matatag, maginhawa at panatag na buhay*" entails laying down the foundation for more inclusive growth, a high-trust and resilient society, and a globally-competitive knowledge economy.

The Plan, chapter-by-chapter, details how we intend to get there. Anchored on three pillars – "*Malasakit*," "*Pagbabago*," and "*Patuloy na Pag-unlad*" – it aims to enhance the social fabric, reduce inequality, and increase potential growth. **Chapter 4** gives a more detailed explanation of the framework.

Like those before it, the PDP 2017-2022 has an accompanying **Results Matrix** that lists the specific programs for the implementing agencies that will be monitored. It also has a **Public Investment Program** that identifies budgetary requirements and the sources of funds. The programs outlined here will also be cascaded to the Regional Development Offices that will formulate individual Regional Development Plans and Investment Programs for specific areas.

In all of this, the long-term vision as articulated by the people will be the primary consideration. The PDP is not a mere NEDA document. It is not even accurate to describe it as just the government's development blueprint.

The Philippine Development Plan is how we – all of us together – will strive to turn the vision of the Filipino people into reality.

ERNESTO M. PERNIA
Secretary of Socioeconomic Planning

PART I

INTRODUCTION

01 The Long View

Chapter 1

The Long View

The Philippines by 2040: matatag, maginhawa, at panatag na buhay. The country is a prosperous middle-class society where no one is poor. People live long and healthy lives and are smart and innovative. The Philippines is a high-trust society where families thrive in vibrant, culturally diverse, and resilient communities.

AmBisyon Natin 2040

Since embarking on a program of inclusive growth and poverty reduction under the Philippine Development Plan 2011-2016[1], the Philippines has gradually transformed from being the economic laggard in Asia to one of the region's best-performing economies.

Sustaining growth at the rate of 6.3 percent during the previous plan period, the economy is now clearly on a higher growth trajectory. Strong macroeconomic fundamentals have steeled it against disruptions caused by natural calamities and the global business cycle. The larger fiscal space created has enabled government to support the provision of public goods and services, stimulate private ventures, finance social programs to reduce poverty, and widen economic opportunities for the citizenry. These gains, combined with maintaining a low-and-stable inflation environment, have contributed to the significant decline in income poverty during the previous Plan period.[2]

Moreover, the emphasis on good governance and respect for the rule of law has paid off with the unprecedented level of confidence accorded by the international community on the country as a travel and investment destination, and the generally stable political environment that has been conducive to sustained economic growth and peaceful political transitions.

To carry forward the progress that has been achieved toward inclusive growth, it is important to draw lessons from the experience during the previous plan period. The experience underscores the significant role of macroeconomic and political stability in creating the conditions for sustained growth. Yet while necessary, it takes more than growth to be able to lift the poor out of poverty. The various constraints preventing the poor from permanently exiting poverty have to be directly addressed. As these constraints operate differently depending on the spatial and sectoral location of the poor, government development strategies need to consider the differences arising from geographical and sector-specific factors. In particular, given the extent to which natural disasters can reverse gains in development work, development plans must provide for investments in disaster risk management, especially because of the country's vulnerability to various risks associated with natural hazards. Finally, fostering credible and effective institutions that will enforce the rule of law and guarantee stability and predictability in the investment climate is critical, as are transparency and accountability in government transactions, in order to strengthen the public's trust in government as an agent of reform.

[1] All references to the Philippine Development Plan 2011-2016 include its Midterm Update 2014-2016.

[2] See the results of the 2015 Family Income and Expenditure Survey, PSA, November 2016. The declining trend in poverty is corroborated by independent and more frequently-reported estimates using a different methodology based on self-rated poverty. See the results of Fourth Quarter 2016 Social Weather Survey on Self-Rated Poverty, Social Weather Stations (SWS), January 2017.

Towards A National Long-Term Vision

As one of Asia's better-performing economies today, the Philippines is in a more favorable position than it has ever been in the last four decades. No longer weighed down by an unmanageable fiscal deficit and more secure in its political legitimacy, the government can now afford to think about national goals based on a longer time horizon.

It is important to have a long-term perspective because securing the means for improving people's lives, which ought to be the metric for gauging economic progress, is not a one-off event. Many of the problems requiring government action involve a combination of social, economic, and institutional processes that take years to produce the desired results. This endeavor requires sustained effort and persistence.

Moreover, the world is constantly changing. As problems are solved, new ones emerge. The rate at which current knowledge becomes obsolete is also increasing. For example, young people in more advanced countries today are being trained to solve problems that have yet to be identified using technologies that still have to be developed. The prospects can be mind-boggling. How is the Philippines preparing its youth for the future? What kinds of skills are necessary for survival, for advancement, in tomorrow's technology-driven, knowledge-intensive world of work? What kind of industries will exist in the country 10 or 15 years from now? How are Filipino businesses preparing to compete with the rest of the region and the world? What types of skills will be required and where will they come from?

That these forward-looking questions have not been at the center of the national conversation may be partly due to the preoccupation of government in the past with economic stabilization and political instability. Like an impoverished person who is unable to see beyond the next meal, it was as if the nation had to prioritize its survival over thinking farther into the future about where it wants to be. Another reason is the electoral cycle which shortens the time horizon for development planning to coincide with the six-year term of elected officials. Plans and programs are often arbitrarily terminated and replaced to suit the preferences of incumbents to the detriment of continuity.

But if the Philippine government were to articulate a future direction for the nation, how should this be done? Would such a vision for the future be accepted by the people as their own? How will this vision translate to specific policies, strategies, plans, and programs for implementation on the ground?

Following the idea that human development is the process of expanding people's choices, or enabling them to "unfold their capabilities"[3]––so that they live full lives as human beings––it makes sense that the people's aspirations are the starting point of any national vision for development. Government policies, strategies, plans, and programs should be anchored on people's collective vision.

[3] Sen, A. K. Development as Freedom. New York: Knopf

AmBisyon Natin 2040: The Vision, Our Ambition

On October 11, 2016, President Rodrigo R. Duterte signed Executive Order No. 5, s. 2016 approving and adopting the 25-year long-term vision entitled *AmBisyon Natin 2040* as a guide for development planning. According to EO 5, the Philippine Development Plan 2017-2022 (PDP 2017-2022) and the succeeding PDPs until 2040 shall be anchored on *AmBisyon Natin 2040*. In its preamble, EO 5 recognizes the need for a "bold vision and effective development planning" based on a "forward-looking approach that goes beyond a single administration". It also emphasized the centrality of people in development planning and their aspirations as requisite for the design of government interventions to achieve development outcomes.

AmBisyon Natin 2040 is the result of a long-term visioning process that began under the previous administration in 2015. More than 300 citizens participated in focus group discussions (FGDs) and close to 10,000 responded to the national survey designed to gather information about the kind of life Filipinos want for themselves and their children and what they hope the country would be like in 2040. Technical studies were commissioned to identify strategic options for realizing the vision articulated by citizens. The exercise benefitted from the guidance of an advisory committee composed of select representatives from government, academe, civil society, and the private sector.

AmBisyon Natin 2040 represents the collective long-term vision and aspirations of the Filipino people for themselves and for the country in the next 25 years. It is a vision, not a plan. A vision presents a picture of the future, a set of personal life goals as well as ideals for the country; a plan, on the other hand, consists of a set of strategies to achieve the goals. Plans are contingent on various factors and circumstances, just as routes to a given destination can vary depending on weather or road conditions. A vision, like a goal or a destination, remains fixed, at least for the given time horizon. *Ambisyon Natin 2040* provides the anchor for the country's development plans until 2040.

Middle-class aspirations

The Filipinos' vision for the Philippines in 2040 is a prosperous, predominantly middle-class society where there is equality of opportunities and poverty has been eradicated. It will be a society where people live long and healthy lives with a higher life expectancy at birth of 80 years. Longevity will be enhanced by the ability of individuals and communities to withstand natural as well as man-made shocks and disasters. With smarter and more innovative people, the country in 2040 is also envisioned to be a major player in the global knowledge economy, producing innovative products and processes that are used to make high-quality goods and services at competitive prices. The Philippines will be a high trust, more caring, and peaceful society where human security is assured and government enjoys the people's trust because it is clean, efficient, and service-oriented. High trust will also prevail between the private sector and the government, as well as between and among peoples. Overall, a high trust society will facilitate official and business transactions, and smooth interpersonal relations.

On the kind of life they want for themselves, Filipinos want a life that is strongly-rooted, comfortable, and secure: *matatag, maginhawa, at panatag*.

The terms "strongly-rooted, comfortable, and secure" used to describe the life envisioned by Filipinos by 2040 reveal middle-class aspirations. They include home ownership, a steady source of income to support family and self, college education for the children, a motor vehicle, stable finances to cover daily needs and contingencies, savings for retirement, and time for vacation and travel. There is also a strong family orientation that underlies the preferences as reflected in the choice of living and working in the same locality, the desire for adequate spaces that allow for activities with family and friends, and the desire for access to convenient and affordable transportation for occasional visits to family and friends, among other reasons. The same value is reflected in the importance attached to education. Nearly every Filipino family considers college education a requisite to a decent job and so aspires to have the children complete a college degree.

The desired lifestyle requires a monthly family income of at least ₱120,000[4] for a family of four valued in 2015 prices in the National Capital Region. Can the vision be realized? What will it take?

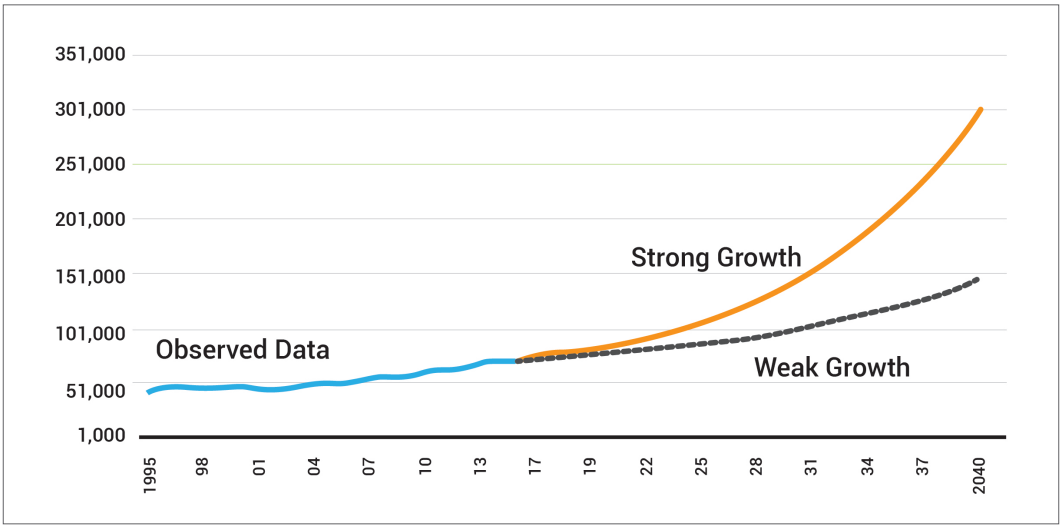
Realizing the Vision

With the right policies, improvements in productivity and efficiency can more than triple the gross national income per capita of the country in 25 years. This will allow the majority of Filipinos to enjoy a middle-class standard of living. Without reforms, however, per capita income can only double over a period of 25 years (*Figure 1.1*)[5].

[4] Other assumptions include: ₱5,000 for monthly maintenance and other operating expenses (MOOE) per vehicle; ₱40,000 for food, utilities and other expenses (₱10,000 per capita monthly food, utilities other expenses x 4 family members); ₱30,000 for monthly housing amortization (₱25,000 monthly amortization for a ₱4 million housing loan for 25 years + ₱5,000 MOOE); ₱10,000 for education expenses of 60,000 per annum x 2 kids / 12 months; ₱25,000 based on 21 percent effective income tax rate; ₱4,000 for entertainment expenses (₱1,000 per capita monthly entertainment expenses x 4); and ₱6,000 for vacation budget (annual vacation budget of ₱18,000 per capita x 4).

[5] Clarete, Ramon. Economic Growth and Poverty Reduction in the Philippines. Unpublished manuscript

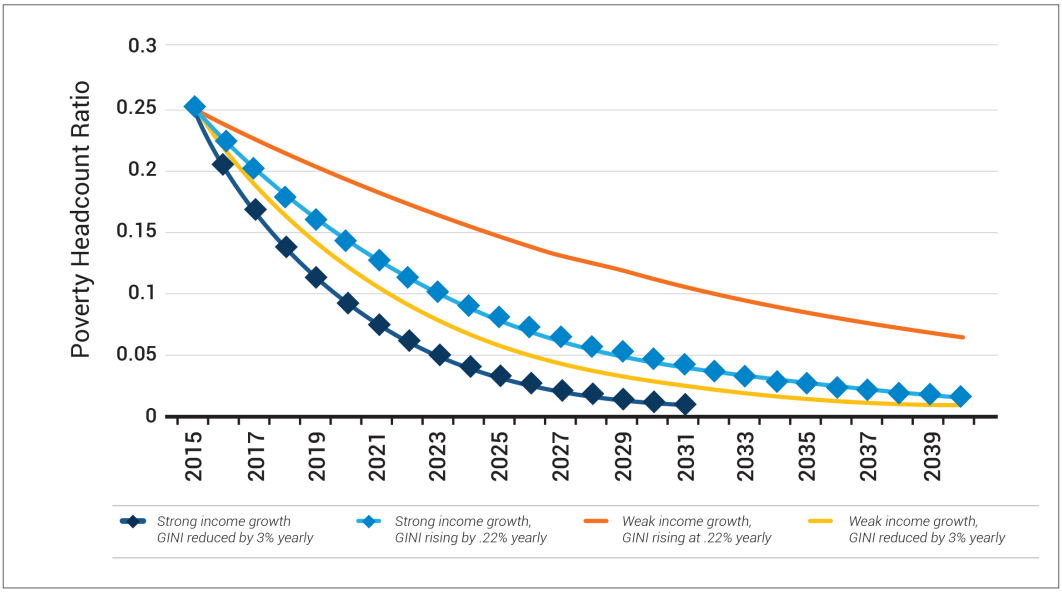
Figure 1.1 Observed and Simulated Growth Scenarios of Philippine Per Capita Gross Domestic Product, 1995-2040 (in ₱)



Source: R.Clarete, Economic Growth and Poverty Reduction in the Philippines, unpublished manuscript.

Poverty can also be eradicated by 2040, or sooner, with the right policies and programs (**Figure 1.2**). The speed with which this can be accomplished will depend both on the robustness of economic growth as well as on how it is distributed across income groups. If income grows only weakly and income disparity rises, poverty reduction will take longer. However, strong economic growth accompanied by reductions in inequality – aided by zero unmet need for modern family planning services – will drastically reduce poverty and virtually eradicate it before 2040. Economic growth must thus be sustained and inclusive.

Figure 1.2 Scenarios of Eradicating Poverty in the Philippines



Source: R.Clarete, Economic Growth and Poverty Reduction in the Philippines, unpublished manuscript.

To make the people's aspirations a reality, government must use the various policy instruments in its arsenal to accomplish the following: (a) investment in human capital so that Filipinos are equipped to learn and adapt to new technology and the changing profile of society; (b) investment in high-quality infrastructure to make the cost of moving people, goods, and services competitive; (c) sound urban development that takes advantage of scale and agglomeration economies to make the cities more competitive and livable; and (d) adequate and inclusive finance to enable households to build up savings and to provide capital for MSMEs and households considering the desire of many to run their own businesses.

In particular, fiscal policy should support a strategic spending program aimed at addressing capacity constraints by investing in infrastructure and encouraging innovation. Monetary and financial policy should continue to support growth through the maintenance of low and stable inflation and financial inclusion. For its part, regulatory policy should promote competition, reduce the set-up costs for new entrants, especially small players, and ensure consumer protection. Finally, social policy needs to expand beyond the current range of services to include social protection for uncovered sectors and disaster risk mitigation, among others, and access to quality healthcare.

Four areas for strategic action over the next 25 years will help realize the national vision.

Toward building a **prosperous, predominantly middle-class society where no one is poor**, create the conditions for the growth of enterprises that generate high-quality jobs and produce high-quality goods and services at competitive prices. Give priority to enterprises in sectors that produce goods and services that meet AmBisyon (i.e., for which there is a domestic market) and those that are able to participate in global trade. Nine priority sectors with the greatest potential to contribute to realizing AmBisyon have been identified:

- Housing and urban development
- Manufacturing (food processing, housing-related goods and services, transport)
- Connectivity (roads, ports, airports, bridges, communication)
- Education services
- Financial services
- Health services
- Tourism-related services
- Agricultural development
- Countryside development

Toward promoting **a long and healthy life**, a range of programs starting with quality and affordable universal health care and social protection is required.

- Reduction of infant mortality rate through quality maternal health and child care
- Reproductive health and family planning programs
- Eradication of malnutrition
- Programs and facilities to encourage development of healthy lifestyles
- Efficiently-managed natural resources and environment

Toward becoming **smarter and more innovative**, people need to expand their skill set in order to adapt to rapidly changing technology and work requirements.

- Education system should equip citizens with knowledge and skills necessary to occupy high-productivity jobs, while remaining adaptable to changing needs of the economy. The K to 12 program provides a foundation for a smarter society, and it should continue.
- Strong intellectual property rights framework to encourage Filipinos to generate innovative products and ideas
- A mature research and development (R&D) program

Toward building a **high-trust society**, government must be people-centered, effective, and accountable.

- Public goods and services should be efficiently delivered by a professional bureaucracy, including at the local level
- Promote competition and inclusiveness in the political system through major political and electoral reform
- Pursue the peace agenda that accompanies a long-term development agenda for areas threatened by armed conflict
- Create social and cultural awareness and develop in every Filipino a deep appreciation of the Filipino nation.

To sustain the Vision over the next 25 years, it is necessary to build a broad constituency behind the reforms needed to attain it. An effective communications strategy is critical to disseminate the Vision to all stakeholders. The Vision also needs to be translated into specific goals, measurable targets, and intermediate milestones while allowing for flexibility in strategies. Preferences and needs may change over time so the Vision will need revisiting and review. The strategies needed to achieve the targets will then be the subject of four PDPs until 2040.

The Philippine Development Plan 2017-2022

The PDP 2017-2022 that takes off from the Administration's 0+10 Point Socioeconomic Agenda is the first medium-term plan anchored on Ambisyon Natin 2040 following EO 5, s. 2016. The current Plan aims to lay a stronger foundation for inclusive growth, a high-trust society, and a globally-competitive economy toward realizing the vision by 2040.

Under the current plan, the target is to reduce poverty incidence from 21.6 percent in 2015 to 14.0 percent by 2022. This is equivalent to lifting about 6 million people out of poverty. Specifically, poverty in agriculture and in lagging regions with high poverty incidence and inequality will be targeted. Individuals and communities will also be made more resilient by reducing their exposure to risks, mitigating the impact of risks, and accelerating recovery when the risk materializes. Moreover, innovation will be encouraged as the country sets its eyes on graduating to a knowledge economy in order to accelerate growth in the future.

The strategies to achieve the targets cited above are grouped under three pillars: Malasakit or enhancing the social fabric, Pagbabago or reducing inequality, and Patuloy na Pag-unlad or increasing growth potential. Chapter 4 discusses the strategic framework of PDP 2017-2022.

This document is organized into seven parts. Part I provides the overall context for the Plan. Part II is about enhancing the social fabric to build the foundations for a high-trust society. Part III stresses the importance of reducing inequalities in economic development opportunities. Part IV focuses on increasing potential growth. Part V calls for a supportive economic environment that will enable the economy to sustain growth, and Part VI is about foundations for inclusive and sustainable development. Finally, Part VII describes the institutional arrangements for implementation and monitoring––making sure that what is planned is implemented and that timely adjustments are done. As the PDP 2017-2022 is the first concrete step towards the realization of AmBisyon Natin 2040, the government needs to make sure that it contributes to achieving the collective aspirations of its citizens.

02 Global and Regional Trends and Prospects

Chapter 2

Global and Regional Trends and Prospects

The next six years is likely to be a period not just of major change and growing uncertainties, but also of great possibilities. To plan appropriately for the future, it is important to be familiar with the inter-related trends in various areas such as economics, politics, demographics, technology, and environment, both at the international and regional levels.

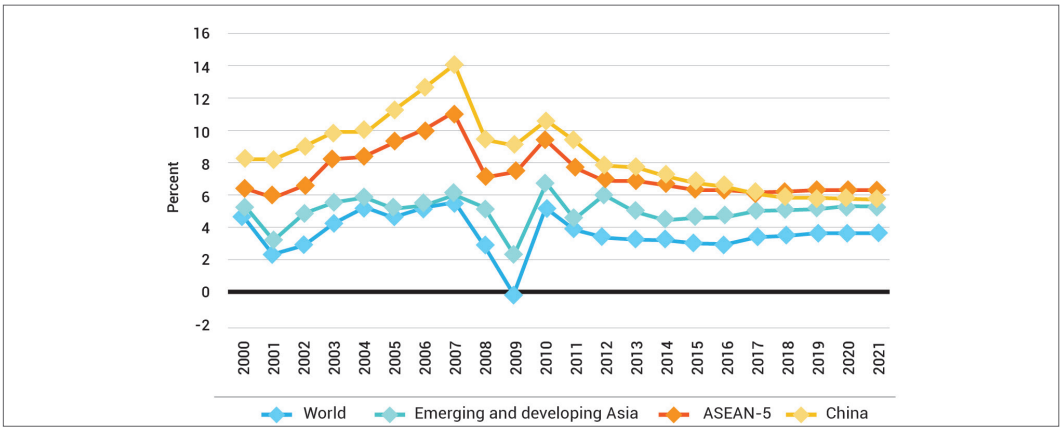
Economic Trends

Muted Global Economic Recovery

Since the 2008-2009 global financial crisis, global economic growth has been sluggish, without any immediate prospect of renewed economic vigor.[1] From an average growth of 5.1 percent in 2003-2007, global output growth slowed to an average of 3.2 percent in 2008-2015.[2]

After a weak outturn in 2016 (estimated at 3.1%), economic activity is expected to accelerate slowly in the medium term. Overall though, the global economy is seen to remain weak, with average growth rising only slightly to 3.6 percent in 2017-2021. Moreover, the outlook is clouded by uncertainty on the policy stance of the new administration in the United States of America, which may have global repercussions[3].

Figure 2.1 GDP Growth



Source: International Monetary Fund, World Economic Outlook database, October 2016

[1] Hill, Hal. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript

[2] IMF. October 2016. "Annual growth of world output at purchasing-power-parity weights." World Economic Outlook Database.

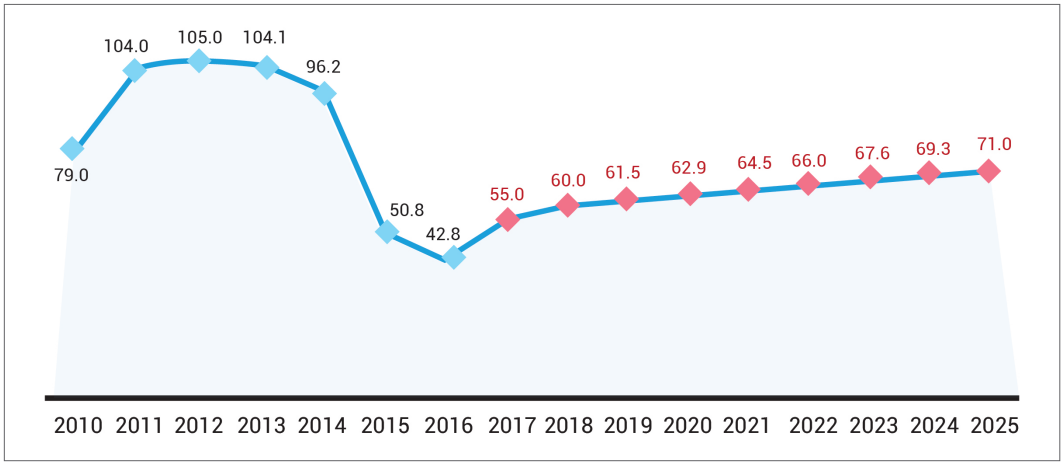
[3] IMF. January 2017. World Economic Outlook Update

Economic growth in emerging markets and developing economies in Asia has likewise slowed from an average of 9.5 percent in 2003-2007 to 7.5 percent in 2008-2015. This is largely driven by the slowdown in China from an average of 11.7 to 8.6 percent growth during the same periods. Growth from 2017-2021 is expected to slow down further to an average of 6.3 percent in emerging Asia and 6.0 percent in China.

In the ASEAN-5 (Association of Southeast Asian Nations: Indonesia, Malaysia, Philippines, Thailand, and Vietnam), the slowdown was not as pronounced, with 5.7 percent average growth in 2003-2007 and 5.1 percent in 2008-2015. The region's economy is expected to gradually recover with growth averaging at 5.4 percent in 2017-2022.

Oil prices are also expected to rise gradually following the agreement among OPEC members and several other major producers to limit supply. Nevertheless, oil prices are not expected to return to pre-2014 levels given the rise of shale oil, in addition to increasing the adoption of renewable energy and conservation measures.

Figure 2.2 Average Crude Oil Price (in USD/bbl)

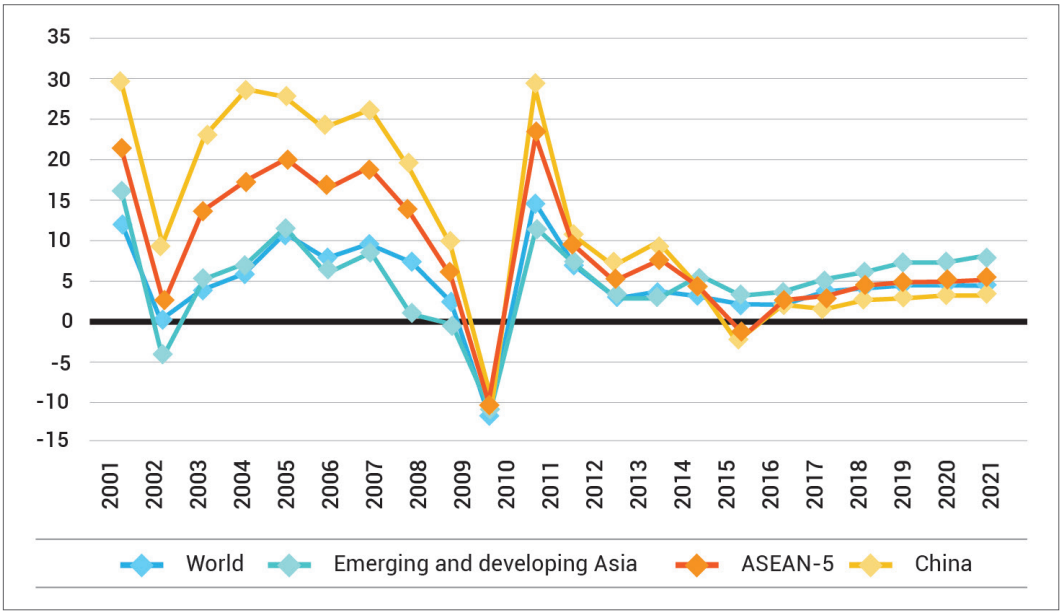


Source: Actual Data from World Bank Commodity Price Data – the Pink Sheet (January 2017); Forecasts in red from World Bank Commodity Markets Outlook (January 2017)

Sluggish International Trade

Growth in global trade (export volume) also slowed significantly from an average of 8.3 percent in 2003-2007 to 3.0 percent in 2008-2015. World merchandise trade volume is expected to have grown by just 2.2 percent in 2016, the slowest since the global financial crisis. Export growth is expected to improve only slightly to an average of 3.9 percent in 2017-2021.

Figure 2.3 Merchandise Exports Volume Growth



Source: International Monetary Fund, World Economic Outlook database, October 2016

In the face of the trend toward inward-looking policies and protectionism, concluding preferential or multilateral trade agreements may become increasingly difficult. This comes with the risk of igniting trade wars or ignoring established international rules in trade and commerce.

Nevertheless, the fundamental trends driving increased global economic integration are likely to remain. This includes the rise of global production networks (GPNs) and buying chains, much of them under the auspices of multinational enterprises. GPNs already account for about half of intra-East Asian trade and intra-ASEAN trade, most of them in electronics[4].

The sluggish growth in 2012-2014 and the magnitude of the decline in trade of goods and services in 2015 suggest a potential change in the dynamics behind the international integration process. The fall in commodity prices and the appreciation of the US dollar are the factors that contribute most to the nominal fall in world trade. Another contributing factor is the shortening of global value chains. Some countries, including those in East Asia, may be re-shoring and consolidating manufacturing production processes[5].

Technological change – which has led to declining transport costs – and the internet revolution have made a dramatic effect in lowering the costs of business within and across countries, including in the services sector[6]. Many business services can now be provided over the internet at greatly reduced cost, and this trend is likely to accelerate[7].

[4] Hill, Hal. 2016. Setting the Scene: the Global and Regional Context.Unpublished manuscript
[5] UNCTAD. December 2016. Key Indicators and Trends in International Trade
[6] Hill, Hall. 2016. Setting the Scene: the Global and Regional Context". Unpublished manuscript
[7] Goswami et al. 2012. Exporting Services: A Developing Country Perspective. Washington DC: World Bank

Surge in Foreign Investments

Prior to the global financial crisis, global foreign direct investment (FDI) inflows averaged USD1.1 trillion from 2003-2007. This increased to an average USD1.4 trillion between 2008 and 2015. In 2015, global flows of FDI rose by about 40 percent, to USD1.8 trillion, the highest level since the global economic and financial crisis began in 2008. However, this growth did not translate to a proportionate expansion in productive capacity in all countries.

For developing Asia, however, FDI inflows increased by 79 percent from USD237 billion in 2003-2007 to USD424 billion in 2008-2015. In 2015, this region remained the largest recipient of FDI while flows declined steeply among countries transitioning to a market economy in Southeast Europe and the Commonwealth of Independent States[8].

An increase of 16 percent in FDI inflows to USD541 billion for developing Asia in 2015 was primarily driven by increased FDI in East and South Asian economies. In East Asia, FDI rose by 25 percent to USD322 billion, reflecting large equity investments related to a corporate restructuring in Hong Kong, China, and dynamic FDI flows to the services sector of China.

ASEAN received only USD52 billion in FDI on average in 2003-2007, but this increased by 93 percent, to USD100.2 billion on average, in 2008-2015. In 2015, FDI in low-income economies such as Myanmar and Vietnam soared, but this was offset by the lackluster performance of higher-income countries, including Indonesia, Malaysia, and Singapore.

Hindered by the current global and regional economic slowdown, FDI inflows to developing Asia are expected to decline in 2016 by about 15 percent, reverting to their 2014 level. Data on cross-border merger and acquisition sales and announced greenfield investment projects support the expected decline. However, flows to Asian economies such as China, India, Myanmar, and Vietnam are likely to see a moderate increase in inflows in 2016.

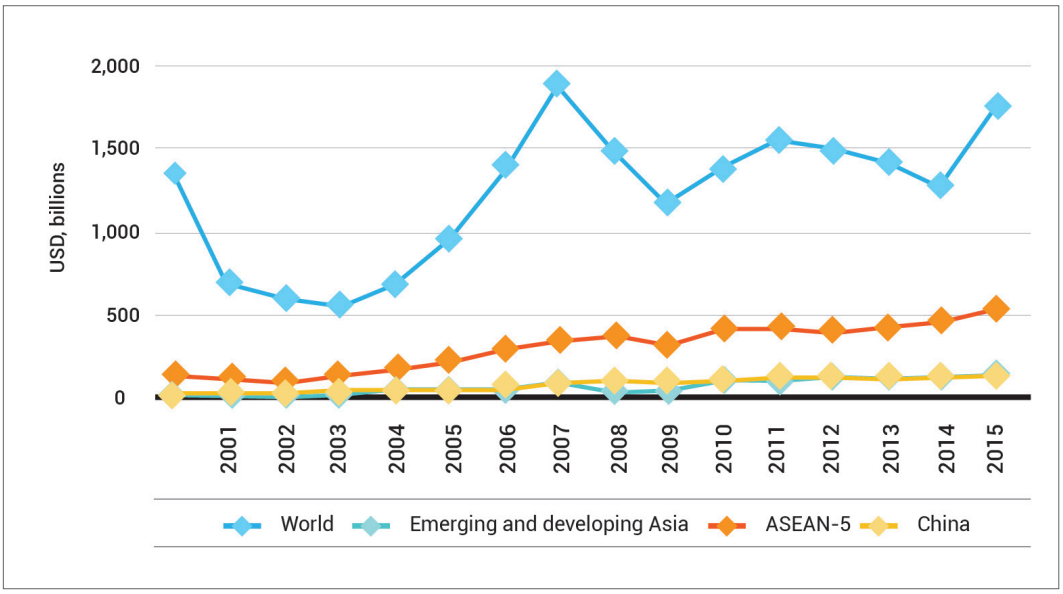
Over the medium term, global FDI flows are projected to resume growth in 2017 and to surpass USD1.8 trillion in 2018, reflecting an expected increase in global growth.

Despite the decline in outflows from developing Asia by 17 percent, at USD332 billion, the region's outward FDI in 2015 remained the third highest ever. Outward FDI from a number of Asian economies, including China and Thailand, increased. With outflows worth USD128 billion, China was the third largest investing country worldwide, after the United States of America and Japan.

There are indications that intraregional investments are rising, and among the most important industries driving this development are infrastructure and electronics. In 2015, 53 percent of the value of greenfield projects came from developing Asia, particularly from China, India, the Republic of Korea, and Singapore.[9]

[8] UNCTAD, World Investment Report 2016
[9] UNCTAD. October 2016. Global Investment Trend Monitor

Figure 2.4 FDI Inflows



Source: UNCTAD database

Asynchronous Monetary Policy in Advanced Economies

With the improved performance of the US economy, the Federal Reserve has started raising its policy rates. Consequently, the International Monetary Fund expects a less gradual normalization of monetary policy and some fiscal stimulus[10]. The fiscal policies considered by the new US Administration, including reducing taxes and increasing infrastructure spending, are likely to raise the budget deficit and lead to higher interest rates. On the other hand, monetary authorities in the European Union (EU) and Japan are likely to maintain their accommodative stance in order to support the slow recovery of their economies. These unaligned policies produce volatilities in capital flows and in the exchange rate.

[10] IMF. January 2017. World Economic Outlook Update

Political Trends

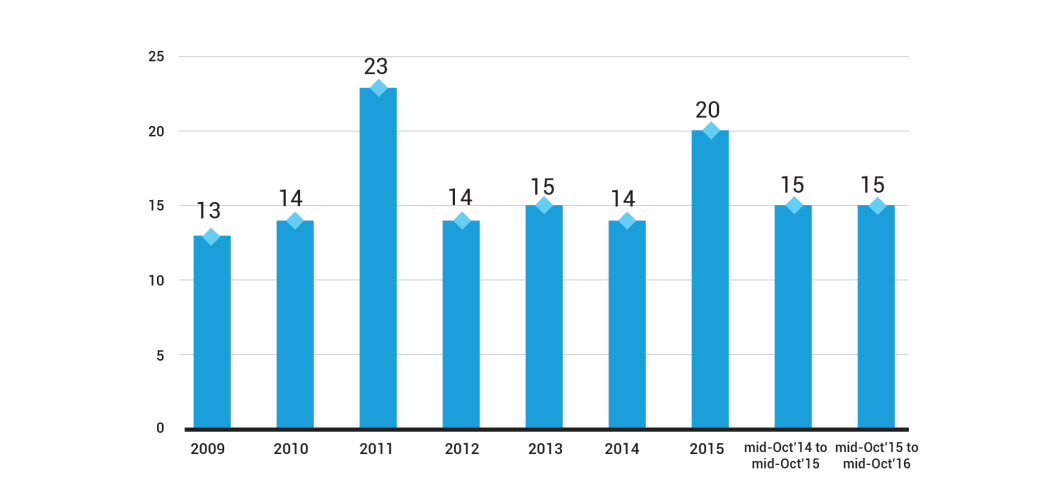
Populist and Protectionist Tendencies

World Trade Organization reports indicate that during the global financial and economic crises, there was a modest increase in protectionist pressures. The number of new measures remains high and the rollback of existing trade-restrictive measures continues to be slow. In addition, the rate of trade facilitating measures applied each month declined against the previous period, remaining below the 2009-2015 trend[11].

Trade remedy investigations were the most popular trade-restrictive measures, representing 72 percent, which is above the average share observed since 2009. The G20 economies initiated much more trade remedy actions (61) than they terminated (36) during the latest reporting period. Metal products (particularly steel), chemicals, plastics, and rubber account for most of anti-dumping and countervailing initiations during the review period.[12]

As a result, the share of global trade affected by such restrictions gradually rose. As of the most recent reporting period, the share of world imports covered by import-restrictive measures implemented since October 2008 and still in place is 5 percent and the share of G20 imports covered is 6.5 percent. Of the 1,671 trade-restrictive measures recorded for G20 economies since 2008, only 408 had been removed by mid-October 2016. The overall stock of measures has increased by 5.6 percent compared to the previous report--with the total number of restrictive measures in effect now at 1,263. The rollback of trade-restrictive measures recorded since 2008 remains too slow and continues to hover just below 25 percent.[13]

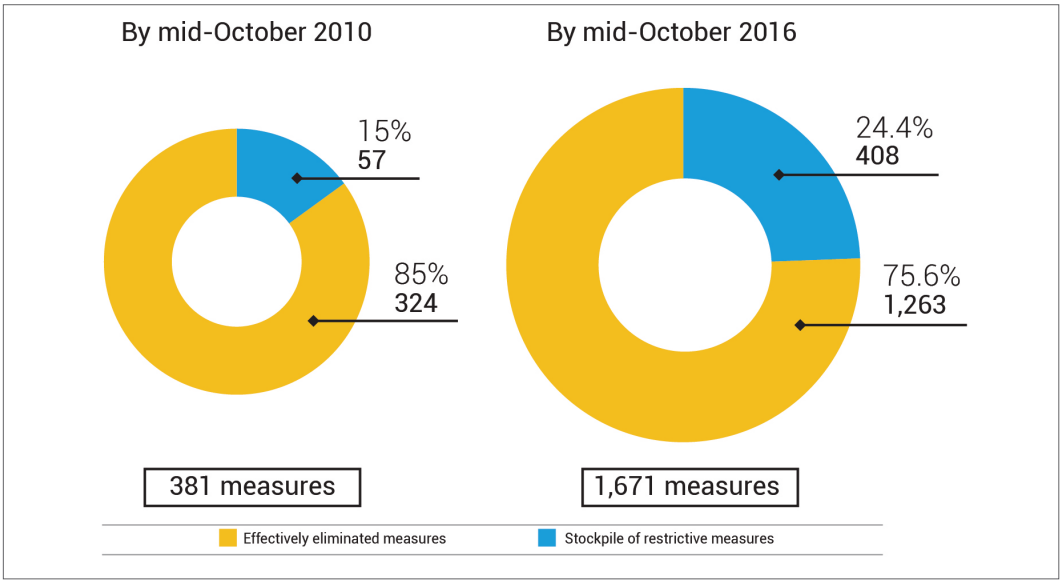
Figure 2.5 G20 Trade-restrictive Measures (Average per Month)



Source: World Trade Organization, Report on G20 Trade Measures, November 2016

[11] WTO. November 2016. Report on G20 Trade Measures
[12] WTO. November 2016. Report on G20 Trade Measures
[13] WTO. November 2016. Report on G20 Trade Measures

Figure 2.6 Figure Stockpile of Trade-restrictive Measures



Source: WTO, Report on G20 Trade Measures, November 2016

As a consequence of the global financial crisis, there has been a growing backlash against the consequences of globalization. Over the medium term, politicians and interest groups are expected to capitalize on the backlash to push for populist and protectionist agenda. This situation raises the risk of ushering in or reinforcing authoritarian governments.

This backlash seems to be manifested in the results of the United Kingdom (UK) referendum on Brexit and the US Presidential elections. The UK seems headed for a "hard Brexit", where it would likely leave the EU Single Market, though possibly in phases. While the UK government is keen on concluding the process within the two years provided under Article 50 of the EU Treaty, negotiations on the terms may take much longer, leading to further uncertainties. A full-blown trade war between the US and China could plunge the global economy into a recession.

Upcoming changes in political leadership in France, Germany, Netherlands, and Italy could further fuel this trend, possibly calling into question the future of the European project. Political developments in China and Russia need to be keenly monitored as well.

Rise of Fundamentalism

The threat from terrorism has been growing, as illustrated by a number of recent attacks carried out in Europe, Asia, Africa, among others. While the Islamic State has suffered significant setbacks, it is likely to take several more years before the threat, including retaliation from the group and its other sympathizers, is fully neutralized. Generally, the Middle East will probably continue to be a region of instability.[14]

[14] Hill, Hal. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript

Maritime Disputes

In 2016, the Permanent Court of Arbitration ruled in favor of the Philippines on the case of the West Philippine Sea. Despite this development, conflicting interests and claims in the West Philippine Sea are likely to remain unresolved given the challenges in enforcing the Court's ruling.

Social and Demographic Trends

Social and demographic factors will increasingly become important determinants of economic progress in the country and the world.

Ageing Populations

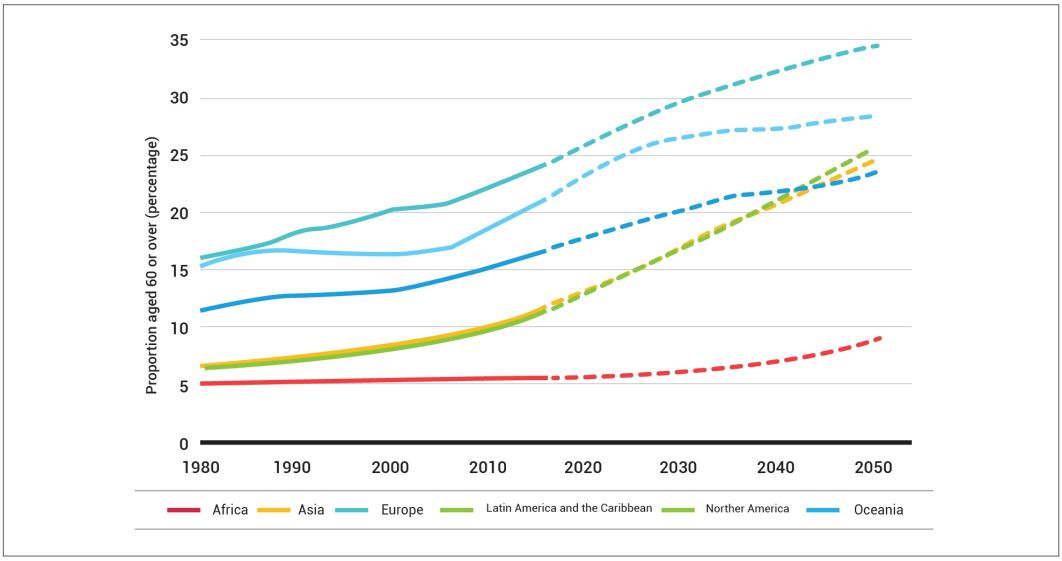
Better nutrition, sanitation, healthcare, education, and economic well-being have led to changes in reproductive and life expectancy trends. People are living longer and healthier and having fewer children. The global population will continue to age quickly, especially in several major rich countries and regions, notably, Japan and most of the EU[15].

Between 2015 and 2030, the number of senior citizens in the world is projected to grow by 56 percent, from 901 million (1:8 people) to more than 1.4 billion (1:6 people). The ageing process advanced the most in Europe and Northern America, where more than 1:5 people were aged 60 or over in 2015. However, ageing is expected to grow quickly in other regions as well. By 2030, older persons are expected to account for more than 25 percent of the populations in Europe and Northern America, 20 percent in Oceania, 17 percent in Asia and Latin America, and 6 percent in Africa. In fact, the number of older persons is expected to grow fastest in Latin America and the Caribbean (71%), followed by Asia (66%), Africa (64%), Oceania (47%), Northern America (41%), and Europe (23%). By 2050, life expectancy at birth is projected to surpass 80 years in Europe, Latin America and the Caribbean, Northern America, and Oceania; it will approach 80 years in Asia and 70 years in Africa[16].

China is also ageing quickly. In spite of the recent relaxation of the one-child policy, the process will accelerate as the second and third-generation effects of the policy are felt[17]. Recent reports indicate that even Thailand and Vietnam are facing the challenge of population ageing. Thailand's population is predicted to begin declining before 2020, as its fertility rate has been below replacement level for 20 years and continues to fall. Data from Vietnam's 2009 census shows that the number of older persons–older women, in particular––has risen more rapidly than any other age group[18].

[15] APEC. 2009. APEC Economic Policy Report
[16] United Nations Department of Economic and Social Affairs. World Population Ageing2015
[17] Hill, Hal. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript
[18] UNFPA. http://www.unfpa.org/news/thailand-and-viet-nam-face-new-development-challenge-ageing-populations

Figure 2.7 Percentage Aged 60 Years or Over by Region, 1980-2050



Source: United Nations Department of Economic and Social Affairs, World Population Ageing 2015.

The ageing workforce in advanced economies will continue to support the demand for migrant workers. In contrast, the workforce in the Philippines will remain relatively young for some time. However, the backlash against globalization is also bringing a rising sentiment against immigration in some countries. This could lead to more stringent migration policies and procedures, as well as to less hospitable working environments for migrant workers.

Inequality May Persist in Some Nations

Related to these demographic trends, inequality is likely to continue to be a major global challenge.. It is probable that the trends of the past decade or more will continue[19]. That is, inequality across nations will likely decline. This is driven mainly by narrowing inter-country differences, as many low- and middle-income economies grow faster than the rich ones. Much of this narrowing gap is driven by the dynamic Asian economies. Trends in inequality within countries are difficult to forecast, but high or rising inequality will likely continue to be a major challenge in most countries[20].

Technological Trends[21]

It is impossible to predict the speed and direction of future technological change. Many of tomorrow's jobs do not yet exist. Historically, over 95 percent of research and development, and hence, innovation, occurred in member nations of the Organisation for Economic Cooperation and Development (OECD). However, much of future innovation will originate in today's middle-income economies, especially those with a strong research and development base such as China, India, Russia, and Brazil.[22]

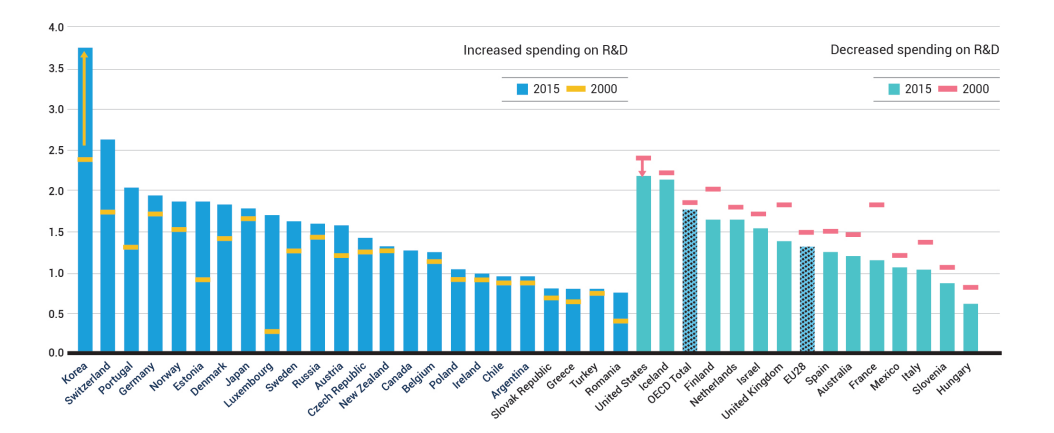
[19] Bourguignon, F. 2015. The Globalization of Inequality. New Jersey: Princeton University Press
[20] Hill, Hal. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript
[21] Information in this section is based on OECD Science, Technology and Innovation Outlook 2016
[22] Hill, Hall. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript

Shift Towards Universities and Private Funding

Most OECD economies continued to maintain or increase public spending on research and development between 2000 and 2015. On average, however, public spending on R&D in OECD countries declined between 2000 and 2015.[23]

Public research in OECD has also been shifting toward universities. These universities, in turn, are increasingly relying on private funding, including from charities, philanthropists, and private foundations.[24]

Figure 2.8 Government Budget Appropriations and Outlays for Research and Development as a Share of Total Government Expenditures, 2000 and 2015



Source: OECD Science, Technology and Innovation Outlook 2016.

Figure 2.9 Public Research and Development Expenditure, Total OECD, as a Share of GDP, 1981-2014

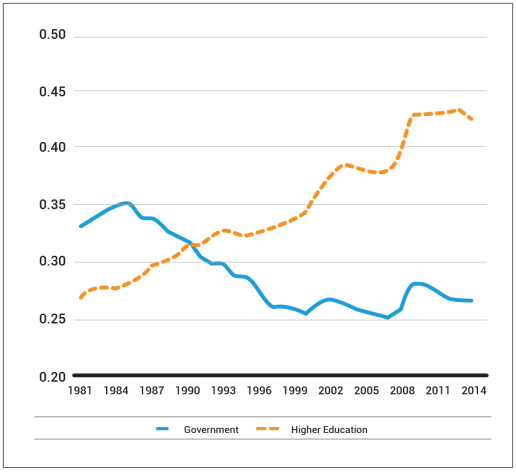
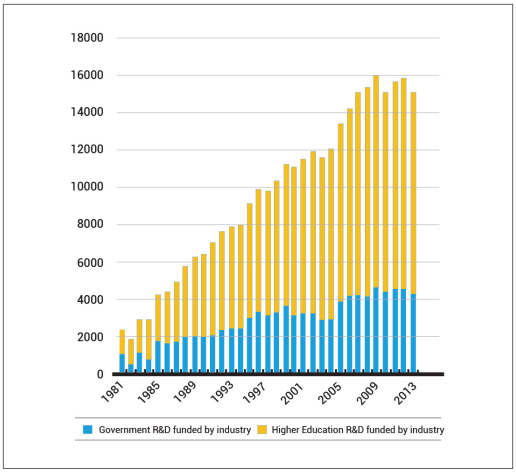


Figure 2.10 Public Research Funding by Industry, OECD, USD Million Purchasing Power Parity at Constant Prices, 1981-2013



Source: OECD Science, Technology and Innovation Outlook 2016.

[23] OECD. Science, Technology and Innovation Outlook 2016
[24] OECD. Science, Technology and Innovation Outlook 2016

Upcoming Disruptive Technologies

Among the most promising and potentially disruptive emerging technologies are the Internet of Things, big data analytics, artificial intelligence, neurotechnologies, nano- or microsatellites, nanomaterials, additive manufacturing, advanced energy storage technologies, synthetic biology, and blockchain.

The ***Internet of Things*** envisions a hyper-connected, digitally-responsive society. The largest impact is expected in healthcare, manufacturing, network industries, and local government. While it has great potential to support human, societal, and environmental development, several safeguards need to be put in place to ensure data protection and security.[25]

Big data analytics is a set of techniques and tools used to process and interpret large volumes of data that are generated by the increasing digitization of content, the greater monitoring of human activities, and the spread of the Internet of Things. It will play a key role in the innovation and competitiveness of firms. Its application to public sector data can improve government policies and public services. Monitoring and predictive analytics can lead to earlier detection of illnesses. However, it is important to balance the need for openness with the threats to privacy, security, equity, and integrity.[26]

Artificial intelligence is the ability of machines and systems to acquire and apply knowledge and carry out intelligent behavior. This technology makes robots that can adjust to changing working conditions, reduce work accidents, and enhance decision-making in hazardous and dangerous situations, thereby leading to substantial savings and increased productivity. Demand for knowledge workers who are able to develop artificial intelligence will increase. Creative or tacit knowledge, which is less codifiable, and skills requiring social interaction or physical dexterity, which are less easy to automate, are likely to remain unaffected.[27] Advances in artificial intelligence are expected to have beneficial impact on health, environment, and other areas. It may take some time though before societies and governments accept this technology and to put in place the appropriate regulations for its use, especially in sensitive areas such as transport and medicine.[28] On the other hand, the use of artificial intelligence in less sensitive areas such as voice computing may find wider acceptance, posing a challenge to the call center industry for instance.

Neurotechnology is an artificial means of interacting with the brain and nervous system in order to investigate, access, and manipulate the structure and function of neural systems. It can greatly enhance diagnosis and therapy. However, some neurotechnologies raise ethical, legal, social, and cultural questions.[29]

Nano/microsatellites, which weigh between 1 kilogram (kg) and 50 kg, offer vast opportunities for making construction faster and more flexible. They can also be used in navigation, communications or remote sensing for civilian and defense purposes. Increasing use of such satellites requires the right regulatory framework and business environments to ensure proper use.[30]

[25] OECD. Science, Technology and Innovation Outlook 2016
[26] OECD. Science, Technology and Innovation Outlook 2016
[27] OECD. Science, Technology and Innovation Outlook 2016
[28] The Economist. The World in 2017
[29] OECD. 2016. Science, Technology and Innovation Outlook 2016
[30] OECD. Science, Technology and Innovation Outlook 2016

Nanomaterials are materials whose external dimension is in the nanoscale (10^{-9} meter). They have unique optical, magnetic, and electrical properties that can be used in healthcare, energy, and other technologies. However, technical constraints and uncertainties over their toxicity to humans and the environment must be considered.[31]

Additive manufacturing––also known as three-dimensional (3D) printing––encompasses different techniques that build products by adding materials in layers, often using computer-aided design software. 3D printing technologies may bring about new products in health, medicine, biotechnology, and metal processing among others. This could lead to changes in work and production patterns. As 3D printing becomes more accessible, legal and regulatory issues regarding data protection, product liability, and intellectual property will become increasingly important.[32]

Energy storage technology is a system that absorbs energy and stores it for a period of time before releasing it to supply energy or power services. Advances in this technology are important to optimize energy systems and allow the integration of renewable energy systems. As the materials, technologies, and deployment applications for storing energy are created, ensuring safety and minimizing the risk of failure and losses become crucial.[33]

Synthetic biology is a new field of research in biotechnology that uses engineering principles to manipulate the genetic make-up of organisms. It allows new biological parts to be constructed and natural biological systems to be re-designed. It is expected to have a wide range of applications in health, agriculture, industry, and energy. It also raises major legal and ethical issues.[34]

The ***Blockchain*** is a database that allows the transfer of value within computer networks. It technology is expected to be used in several markets to ensure trustworthy transactions without the need for a third party. However, it is constrained by unresolved technical issues and risk of abuse for illegal purposes.[35]

[31] OECD. Science, Technology and Innovation Outlook 2016
[32] OECD. Science, Technology and Innovation Outlook 2016
[33] OECD. Science, Technology and Innovation Outlook 2016
[34] OECD. Science, Technology and Innovation Outlook 2016
[35] OECD. Science, Technology and Innovation Outlook 2016

Environmental Trends

Climate Change

The science of climate change may continue to be controversial and highly uncertain, though there is now wider consensus among professionals about the gradually rising average temperatures and climate volatility.[36]

The Intergovernmental Panel on Climate Change (IPCC) says that the average global temperature increased by 0.85 degree Celsius (°C) between 1880 and 2012. As a result, major crops like maize and wheat have suffered significant yield reductions at the global level of 40 megatonnes (MT) per year between 1981 and 2002. Also, the global average sea level increased by 19 centimeters from 1901 to 2010, as oceans expanded due to warming and melting of ice. The Arctic has been losing 1.07 million square kilometers of ice every decade since 1979. The increase in global temperature by the end of this century will likely exceed 1.5°C compared to the levels from 1850 to 1900, considering the continuous emissions of greenhouse gases. In fact, 2016 was declared the hottest year on record, with the global average temperature about 1.1°C higher than the pre-industrial period.[37]

This condition led to widespread coral reef bleaching. If current trends continue, nearly all of the world's coral reefs will suffer severe bleaching every year.[38]

Figure 2.11 Global Average Surface Temperature Change (Relative to 1986-2005)

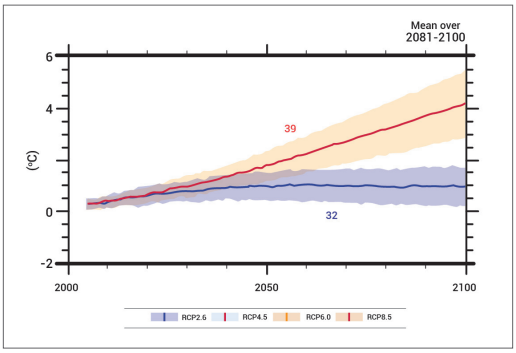
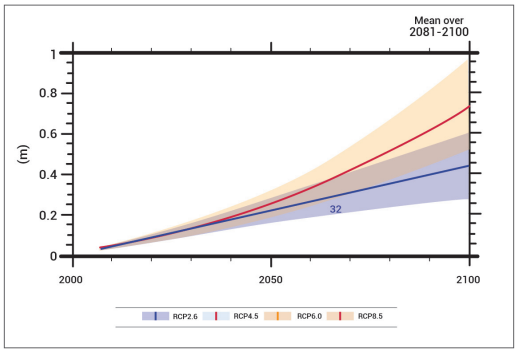


Figure 2.12 Global Mean Sea Level Rise (Relative to 1986-2005)



Source: IPCC, 2014: Climate Change 2014 - Synthesis Report.

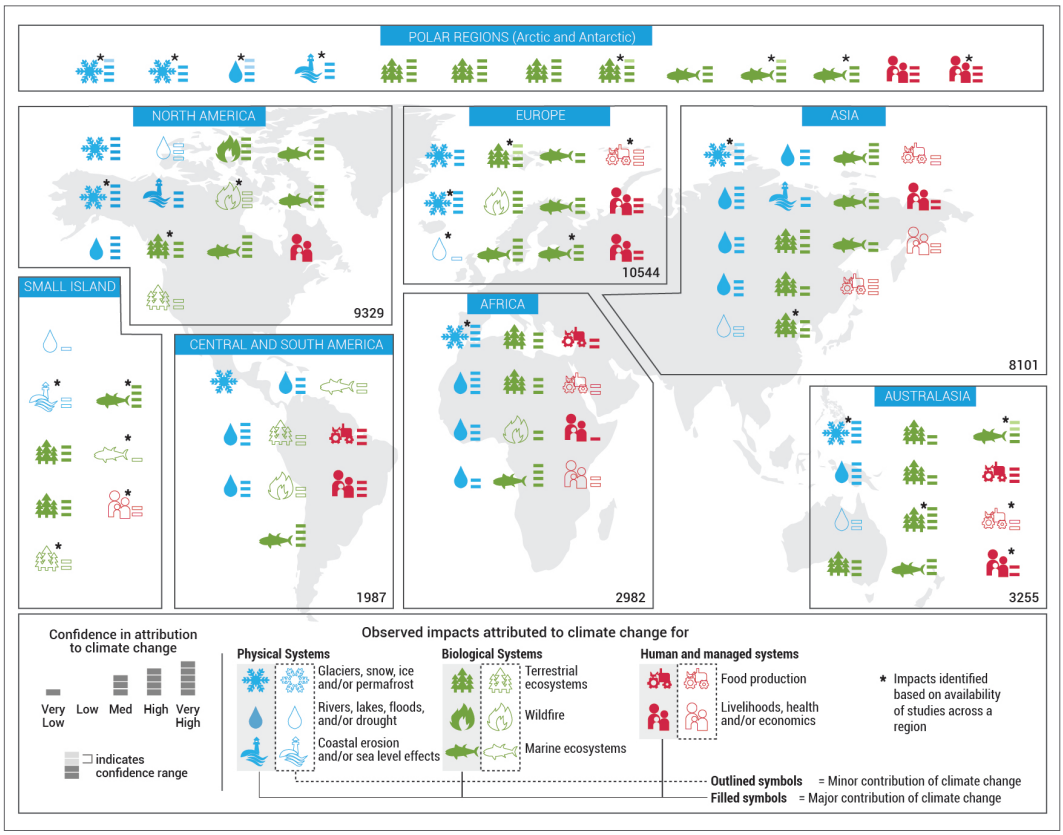
[36] Hill, Hall. 2016. Setting the Scene: the Global and Regional Context. Unpublished manuscript
[37] World Meteorological Organization. https://public.wmo.int/en/media/press-release/wmo-confirms-2016-hottest-year-record-about-11%C2%B0c-above-pre-industrial-era
[38] UN. http://www.un.org/sustainabledevelopment/blog/2017/01/climate-change-will-lead-to-annual-coral-bleaching-study-predicts/

The world's oceans will also continue to warm and the ice melt. Average sea level rise is predicted at 24-30 cm by 2065 and 40-63 cm by 2100. Most aspects of climate change will persist for many centuries even if emissions stop. [39]

To address climate change, countries adopted the Paris Agreement at the Conference of Parties 21 on December 12, 2015. All signatories agreed to limit global temperature rise to below 2°C and to strive for 1.5°C.[40] The Paris Agreement represents an important step in international efforts to combat climate change. However, potential changes in the direction of US policy could undermine the implementation of the agreement. Nevertheless, where the local impact of climate change and environmental degradation has become more evident, pressure from domestic stakeholders may encourage their governments to pursue the path of sustainable development.

The next six years will be filled with great challenges for policymakers in emerging economies, such as the Philippines, which have little control over global and regional trends. The following chapters illustrate how the country intends to navigate through these difficult times.

Figure 2.13 Widespread Impacts Attributed to Climate Change Based on the Available Scientific Literature Since 4th Assessment Report of the IPCC



Source: IPCC, 2014: Climate Change 2014 - Synthesis Report.

[39] UN. http://www.un.org/sustainabledevelopment/climate-change-2/
[40] UN. http://www.un.org/sustainabledevelopment/parisagreement22april/

03 Overlay of Economic Growth, Demographic Trends, and Physical Characteristics

Chapter 3

Overlay of Economic Growth, Demographic Trends, and Physical Characteristics

The Philippine Development Plan (PDP) 2017-2022, which takes off from the current Administration's 0+10 Socioeconomic Agenda, pursues the realization of inclusive development, anchored on the Long-Term Vision or AmBisyon Natin 2040: *matatag, maginhawa, at panatag na buhay*. It defines the desired spatial distribution of human activity in the country based on economic, social, institutional, and environmental conditions.

The Plan espouses a national spatial strategy (NSS) that describes the geographic development challenges and opportunities in population and economic growth. The NSS provides the basis for policies on urban development, infrastructure development, disaster mitigation, and environmental resource protection and conservation. It recommends sustainable human settlements, efficient production, and effective service delivery systems.

The key principles of spatial development are as follows:

- Integration of leading and lagging areas and urban-rural linkages through transportation networks
- Improvement of access to social services
- Identification of locations of major infrastructure to maximize their benefits
- Improvement of local, national, and international connectivity
- Promotion of sustainable development and resiliency

Economic and Demographic Trends

The spatial distribution of population reflects the structure of the economy, characterized by varying concentrations of production and consumption in cities and municipalities, and in their respective host regions. The notable trends include the following:

The total population continues to increase following a long-term trend.

- The overall growth rate, however, is decreasing, which is a global trend.
- Regions with established and large cities (regional centers) are growing the fastest. Notably, while the regional centers are growing much faster than other cities and municipalities, the National Capital Region's growth is much slower. Its share of the population is getting smaller even though its contribution to gross domestic product (GDP) remains highest among the regions.
- Regions with the largest populations also have the largest shares to GDP.

Regional Shares in GDP

The country's three most populous regions––CALABARZON (Region 4A), National Capital Region (NCR), and Central Luzon (Region 3)––account for nearly two-thirds of the Philippine domestic production (see ***Figure 3.1***). NCR had the largest share to GDP at 37.9 percent in 2015, followed by CALABARZON at 15.5 percent, and Central Luzon at 8.9 percent, for a combined total share of 62.3 percent. The growth of these regions has been due primarily to the location of the central government, which facilitates the expansion of the industry and services sectors.

On the other hand, the regions with the smallest contributions to GDP are the Autonomous Region in Muslim Mindanao (ARMM) at 0.7 percent, followed by Caraga at 1.3 percent, and Mindoro Occidental, Mindoro Oriental, Marinduque, Romblon, Palawan (MIMAROPA) at 1.6 percent.

The rest of Luzon accounts for 10.3 percent, Visayas for 12.4 percent, and Mindanao for 14.5 percent share to GDP.

In terms of growth rates, six regions expanded faster than the 6.2 percent average GDP growth rate in the past six years. The Caraga region, coming from a low base, is the fastest with an average gross regional domestic product (GRDP) growth rate of 8.8 percent. It is followed by Central Visayas (Region 7) and Central Luzon at 8.2 percent and 7.2 percent, respectively.

Figure 3.1 Average Regional Share in GDP, 2010-2015

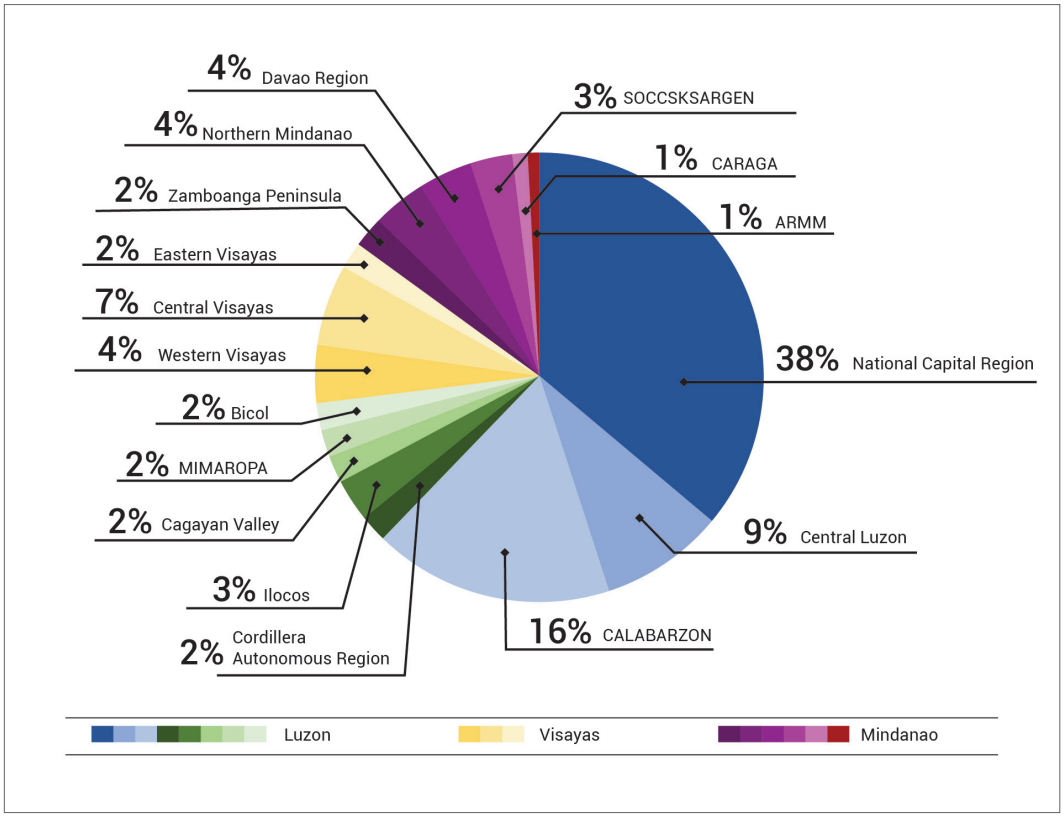


Table 3.1 GRDP Growth Rate and Regional Contribution to GDP Growth, 2010-2015

REGION	GDP GROWTH RATE						AVERAGE ANNUAL GROWTH RATE (2010-2015)	CONTRIBUTION TO GDP GROWTH						AVERAGE CONTRIBUTION TO GDP GROWTH (2010-2015)
	2010	2011	2012	2013	2014	2015		2010	2011	2012	2013	2014	2015	
PHIL	7.6	3.7	6.7	7.1	6.2	5.9	6.2	7.6	3.7	6.7	7.1	6.2	5.9	6.2
NCR	7.4	3.2	7.0	9.1	5.9	6.6	6.5	2.6	1.1	2.5	3.3	2.2	2.4	2.3
CAR	6.5	1.3	(2.9)	5.4	3.3	3.7	2.9	0.1	0.0	(0.1)	0.1	0.1	0.1	0.1
I	6.8	2.5	7.2	7.0	6.4	5.0	5.8	0.2	0.1	0.2	0.2	0.2	0.2	0.2
II	(0.8)	5.7	7.2	6.6	7.2	3.7	4.9	(0.0)	0.1	0.1	0.1	0.1	0.1	0.1
III	10.0	7.1	7.2	4.5	9.3	5.3	7.2	0.9	0.6	0.7	0.4	0.8	0.5	0.7
CALABARZON	11.7	1.6	7.0	6.6	5.1	5.9	6.3	2.0	0.3	1.2	1.2	0.9	1.0	1.1
MIMAROPA	(0.3)	3.1	4.1	1.3	8.3	1.7	3.0	(0.0)	0.1	0.1	0.0	0.1	0.0	0.1
V	3.5	1.9	8.8	8.2	4.3	8.4	5.8	0.1	0.0	0.2	0.2	0.1	0.2	0.1
VI	4.5	6.2	7.0	3.4	5.2	8.3	5.8	0.2	0.2	0.3	0.1	0.2	0.3	0.2
VII	12.9	6.8	9.4	7.4	7.8	4.8	8.2	0.7	0.4	0.6	0.5	0.5	0.3	0.5
VIII	3.0	2.1	(6.8)	4.6	(2.4)	3.9	0.7	0.1	0.1	(0.2)	0.1	(0.1)	0.1	0.0
IX	1.4	0.1	12.4	4.2	6.6	7.2	5.3	0.0	0.0	0.2	0.1	0.1	0.1	0.1
X	6.5	5.8	6.5	5.4	7.1	5.5	6.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2
XI	5.6	3.7	7.0	6.7	9.3	7.9	6.7	0.2	0.1	0.3	0.3	0.4	0.3	0.3
XII	2.2	5.3	7.3	8.4	6.2	3.3	5.4	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Caraga	10.7	8.5	11.5	8.2	9.4	4.2	8.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ARMM	6.7	(0.3)	0.0	3.8	3.0	(0.8)	2.1	0.1	(0.0)	0.0	0.0	0.0	(0.0)	0.0

Source: Philippine Statistics Authority

Trends in Population Growth

The population of the Philippines continues to increase. Based on the 2015 census, the country's population is 100,981,437. It is 8.64 million more than the population in 2010 and 24.47 million more than in 2000. Annual population growth rate, however, has been slowing down––from 1.90 percent in 2000-2010 to 1.72 percent in 2010-2015.[1] CALABARZON has the largest population with 14.4 million, followed by NCR with 12.9 million, and Central Luzon with 11.2 million. The least populated regions are MIMAROPA with 3 million, Caraga with 2.6 million, and Cordillera Administrative Region (CAR) with 1.7 million.

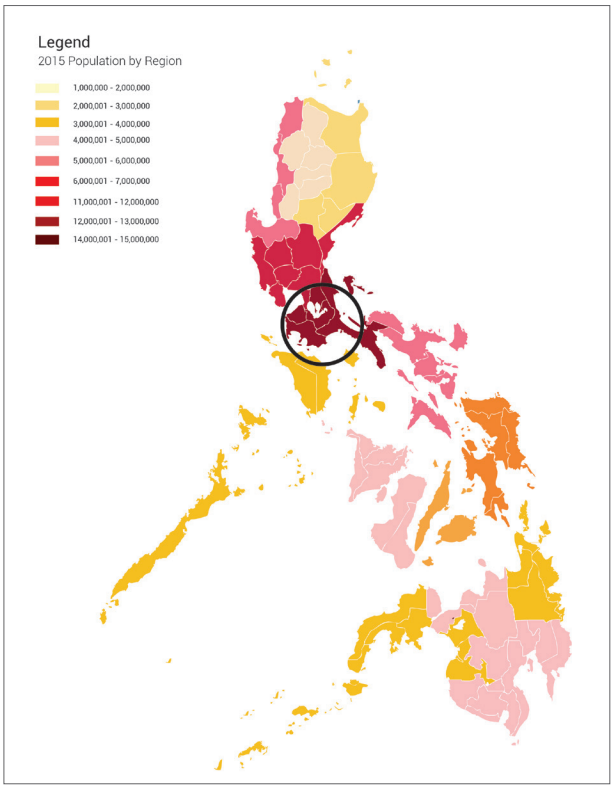
By 2045, the population of the Philippines is projected to increase to 142,095,100. CALABARZON is projected to continue to have the highest population. Central Luzon and NCR will have almost equal population levels of 14.5 million. Western Visayas (Region 6) and Central Visayas, the next most populous regions, are each expected to have 9.7 million people by 2030. On the other hand, CAR will continue to be the least populated.

[1] Population censuses were conducted in 2000, 2010, and 2015.

Population Growth of Major Cities

Based on the 2015 Census of Population, the Philippines has 33 highly-urbanized cities, with four of them having a population of more than one million: Quezon City (2.94 million), Manila City (1.78 million), Davao City (1.63 million), and Caloocan City (1.58 million). Most of these cities are located in the Luzon island. After Davao City, cities with the highest population outside Luzon are Cebu City in the Visayas with 922,611 and Zamboanga City in Mindanao with 861,799.

Figure 3.2 Population by Region, 2015



Source: Philippine Statistics Authority

Figure 3.3 Population of Major Cities

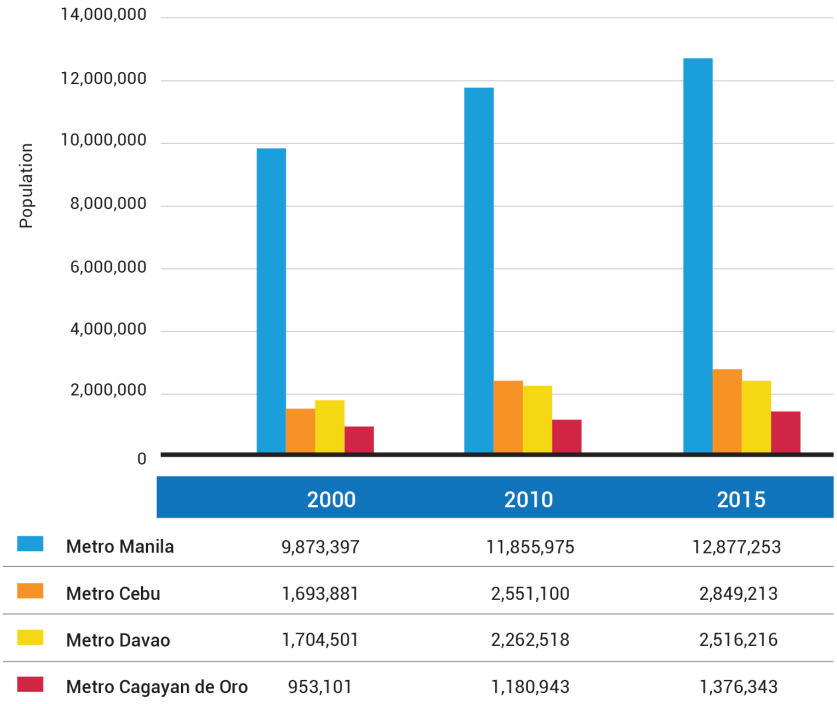
	Quezon City	Manila City	Davao City	Caloocan City	Cebu City	Zamboaga City	Antipolo City	Pasig City	Taguig City	Cagayan de Oro City
Year 2000	2,173,831	1,581,082	1,147,116	1,177,604	718,821	601,794	470,866	505,058	467,375	461,877
Year 2010	2,761,720	1,652,171	1,449,296	1,489,040	866,171	807,129	677,741	669,773	644,473	602,088
Year 2015	2,936,116	1,780,148	1,632,991	1,583,978	922,611	861,799	776,386	755,300	804,915	675,950

Source: Philippine Statistics Authority

Population of Metropolitan Areas

NCR remains to have the largest population with 12.9 million in 2015, followed by Metro Cebu with 2.8 million, Metro Davao with 2.5 million, and Metro Cagayan de Oro (CDO) with 1.4 million.

Figure 3.4 Population of Metropolitan Areas: 2000, 2010, and 2015



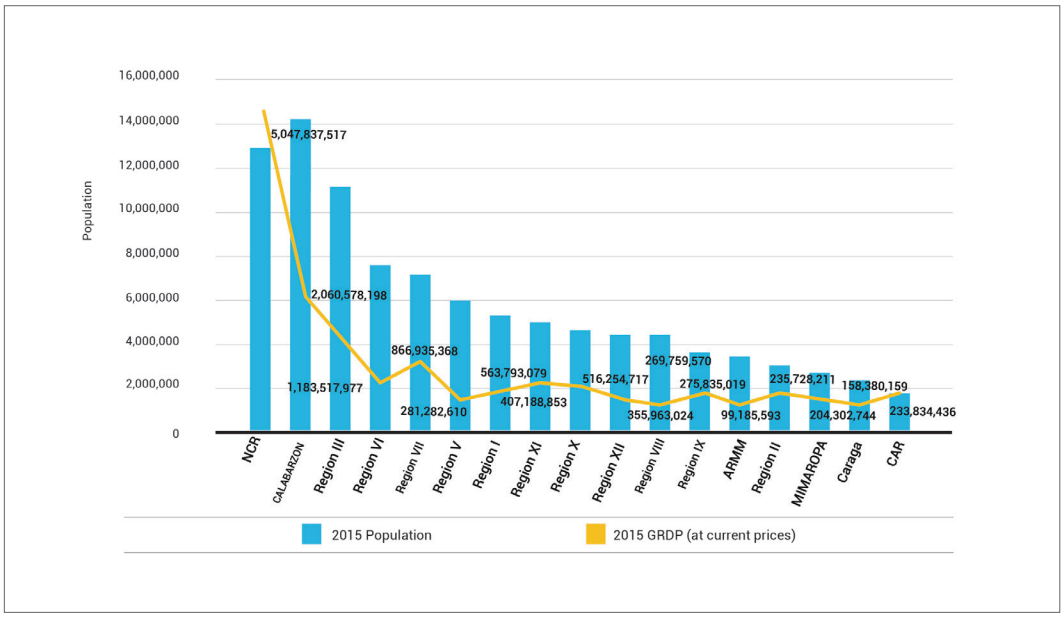
	2000	2010	2015
Metro Manila	9,873,397	11,855,975	12,877,253
Metro Cebu	1,693,881	2,551,100	2,849,213
Metro Davao	1,704,501	2,262,518	2,516,216
Metro Cagayan de Oro	953,101	1,180,943	1,376,343

Source: Philippine Statistics Authority

The Relationship of Population to GRDP

With few exceptions, regions with higher GRDP also have larger populations (*see* ***Figure 3.5***). Within these regions, certain cities or groups of cities and municipalities dominate in population levels and economic development, except NCR whose cities and municipalities are functionally linked as one big metropolis.

Figure 3.5 Population and GRDP, 2015



Source: Philippine Statistics Authority

The Overall Spatial Strategy

The NSS sets the direction of future growth that is consistent with the vision under AmBisyon Natin 2040. It recognizes the role of *cities as engines of economic growth and venues of growth and poverty reduction, and infrastructure to provide efficient connective networks of sustainable urban and rural communities.*

The NSS aims to decongest NCR and direct growth to key centers throughout the country, where the benefits of agglomeration can have greater potentials of being realized. It recognizes comparative advantages of cities and municipalities and seeks to address spatial and socioeconomic inequalities by linking lagging regions with leading ones, rather than advocating the uniform dispersal of development, which can create diseconomies and inefficiencies. The NSS thus forms a network of settlements to maximize the benefits of agglomeration.

The NSS consists of the following components: regional agglomeration with growth in key centers, connectivity, and reduction of vulnerability. The spatial strategy provides a basis for identifying more specific projects that can serve the catchment and market or service areas of the various centers. These can be included in the Regional Development Plans.

Regional Agglomeration

The NSS seeks to build on the efficiencies and maximize the benefits of scale and agglomeration economies. The strategy will build on the current trend where NCR growth is slowing down and regional centers, including their peripheral areas, are growing faster and increasing their shares of the country's population.

The growth of regional centers will be managed so that they function more efficiently. The advantages of their scale and agglomeration economies are to be maximized and spread to outlying areas or regions, as in a hub-and-spokes model, through their relatively large markets, labor force, and innovation opportunities.

Regional development thrust will be supported with suitable physical and human infrastructure (including affordable housing, quality education, and healthcare), other social and economic services, and efficient urban management.

Network of Settlements

Based on population trends, service catchments, and economic activities, the country's settlements have a three-tiered network: (a) metropolitan centers; (b) regional centers; and (c) sub-regional centers.

a. Metropolitan Centers

These are the economic centers of the country's three main island groups. They have distinct functions in innovation and advanced services, culture and tourism, education and research, transportation and trade (e.g., primary international gateway), manufacturing, and technology development.

There are three metropolitan centers in the country: NCR, Metro Cebu, and Metro Davao. NCR is the metropolitan center of Luzon and the Philippines, and is envisioned to remain as the seat of the national government. Metro Cebu is the country's second largest urban center with extensive domestic and international links. Its central location makes it a natural hub for economic, commercial, and logistics activities in the Visayas. Metro Davao is a major international gateway and Mindanao's premier commercial hub; center for education, health, and services; and tourist attraction.

By 2025, Metro CDO will become the 4th metropolitan center based on its projected population growth and functional role as a major gateway and trans-shipment hub in Northern Mindanao. It will also remain as a key educational center in Northern Mindanao.

b. Regional Centers

They are regional markets and service centers for several provinces. They have markets that are large enough to support a range of services and investments. Regional centers have the most direct linkages to metropolitan centers. They are regional administrative centers, international gateways, and tourism hubs.

c. Sub-regional Centers

These large settlements serve as market catchments of regional centers. They also connect to and serve as service centers of smaller provincial and local centers. As they grow, these sub-regional centers tend to merge with adjacent regional centers to form even larger metropolitan areas as those formed by the NCR, CALABARZON, and Central Luzon.

Table 3.2 Network Settlements

NETWORK	REGION/PROVINCE/CITY/MUNICIPALITY		
1. Metropolitan Centers	- NCR - Metro Cebu	- Metro Davao - By 2025, Metro CDO (CDO City, Jasaan, Villanueva, Tagoloan, Claveria, Manolo Fortich, Opol, El Salvador, Alubijid, Laguindingan, Gitagum, Libertad, Initao)	
2. Regional Centers	- Laoag City - Tuguegarao City - Tabuk City - Santiago City - San Fernando City (La Union) - Baguio City-La Trinidad-Itogon-Sablan-Tuba-Tublay - Cabanatuan City - Tarlac City - Subic-Olongapo City - Balanga City - Angeles City	- Baliuag - Malolos City - Dasmariñas City - Antipolo City - Calamba City - Batangas City - Lucena City - Calapan City - Puerto Princesa City - Legazpi City - Naga City (Camarines Sur) - Iloilo (Iloilo City- Pavia- Oton-Leganes, Santa Barbara- San Miguel)	- Bacolod (Bacolod City-Talisay City-Silay City) - Tagbilaran City - Tacloban City - Ormoc City - Zamboanga City - General Santos City - Butuan City - Cotabato City - Dipolog City - Jolo - Surigao City - Pagadian City - Koronadal City - Tagum City
3. Sub-regional Centers	- Alfonso Lista (Potia) - Banaue - Bangued - Bauko - Besao - Bontoc (Mountain Province) - Danglas - Flora - Kiangan - La Paz (Abra) - Lamut - Langiden - Luna (Apayao) - Peñarrubia - Pidigan - Pudtol - Sadanga - San Isidro (Abra) - Santa Marcela - Tayum - Tubo - Alaminos City - Dagupan City - Cauayan City - Ilagan City - Santa Ana (Cagayan) - Arayat - Capas - Concepcion (Tarlac) - Hagonoy (Bulacan) - Lubao - Mabalacat City - Marilao - Mariveles - Mexico - Meycauayan City - San Fernando City (Pampanga) - San Ildefonso (Bulacan)	- San Jose City - San Jose del Monte City - San Miguel (Bulacan) - Santa Maria (Bulacan) - Bacoor City - Baras (Rizal) - Biñan City - Cabuyao City - Cainta - Gen. Mariano Alvarez - General Trias City - Imus City - Lipa City - Nasugbu - Rodriguez (Montalban) - San Mateo (Rizal) - San Pablo City - San Pedro City - Santa Rosa City - Sariaya - Silang - Tanauan City - Tanza - Taytay (Rizal) - Boac - Romblon (Capital) - San Jose (Occi. Min) - Daet - Iriga City - Ligao City - Masbate City - Matnog - Pili - Sorsogon City - Tabaco City - Virac - Roxas City - Malay - San Carlos City (Negros Occidental)	- Kabankalan City - Estancia - Dumangas - San Jose (Antique) - Miag-ao - Catbalogan City - Calbayog City - Jordan - Kalibo - Dumaguete City - Bogo City - Toledo City - Tubigon - Iligan City - Panabo City - Marawi City - Ozamiz City - Malaybalay City - Valencia City - Digos City - Polomolok - Midsayap - Mati City - Kidapawan City - Gingoog City - Bislig City - Tandag City - Tacurong City - Bongao - Parang (Maguindanao) - San Francisco (Agusan del Sur) - Tubod (Lanao del Norte) - Maramag - Ipil - Glan (Saranggani) - Malita - Laguindingan - Isabela City - Lamitan - Aurora (Zamboanga del Sur)

Functions of Centers

The metropolitan centers of NCR, Metro Cebu, and Metro Davao provide higher forms of services and facilities that serve domestic and international requirements. Regional and sub-regional centers, on the other hand, have population sizes, services, natural physical features, and strategic locations that enable them to host certain activities or functions.

Regional Centers

- *Regional administrative centers*: Baguio City, Tuguegarao City, San Fernando City (La Union), Calamba City, Legazpi City, San Fernando City (Pampanga), Calapan City, Tacloban City, Iloilo City, Butuan City, Pagadian City, and Koronadal City
- *International gateways* examples: Iloilo City, Bacolod City, Angeles City, Zamboanga City, Legazpi City, Laoag City, Puerto Princesa City, and General Santos City
- *Tourism hubs*: (Examples) Legazpi City, Naga City, Calapan City, Puerto Princesa City, Laoag City, Tagbilaran City, and Surigao City

Sub-regional Centers

- *Tourism hub e*xamples: Alaminos City, Matnog, Malay, Kalibo, Jordan, and Tubigon
- *Agri-industrial centers* examples: Midsayap, Mati, Cauayan City, Polomolok, Kidapawan City, Bislig, Tacurong City, and Calbayog City
- *Industrial centers* examples: Biñan City, Sta. Rosa City, Lipa City, Tanauan City, San Carlos City, Iligan City, Subic, and Mariveles
- *Higher education* examples: Marawi City and Dumaguete City

These centers share the same characteristic as some of the existing economic zones identified in the Special Economic Zone Act and tourism circuits identified in tourism plans.

Connectivity

The strategy of connectivity aims to connect the settlements to form an efficient network. This means improving linkages among settlements and key production areas by connecting rural areas to growth centers or strengthening urban-rural linkages. These linkages will increase people's access to jobs and services, especially those in smaller settlements. Also, they will direct growth in areas with greatest economic potentials through efficient transport networks.

Connectivity seeks to equalize opportunities across space. This is not only achieved through physical connectivity but also through investments and human development, particularly in areas where economic opportunities are limited. It includes isolated conflict-affected areas where peace and development efforts can be enhanced. Investing in human capital through education, health, and other social services will improve people's mobility. Moreover, connectivity will provide accessible social services to improve the quality of life in the locality.

The NSS seeks to address socioeconomic inequalities by linking lagging regions with leading ones, rather than forcing uniform dispersal of development, which can create diseconomies and inefficiencies. With a more efficient network of settlements, more opportunities for production and employment are expected to be generated, thus increasing family incomes and savings for investment and growth, and reducing poverty.

The NSS also recognizes that while cities tend to be engines of growth, they also need appropriate infrastructure, affordable housing, and service systems. These are needed to manage growth and address the challenges of congestion, inadequate social services, and vulnerability to natural disasters.

Connectivity requires strengthening of transportation and telecommunication linkages to provide accessibility and integration of production and settlement areas. It emphasizes the need to connect various centers within a network of settlements through transport infrastructures to improve people's mobility and accessibility to jobs and services.

Reduction of Vulnerability

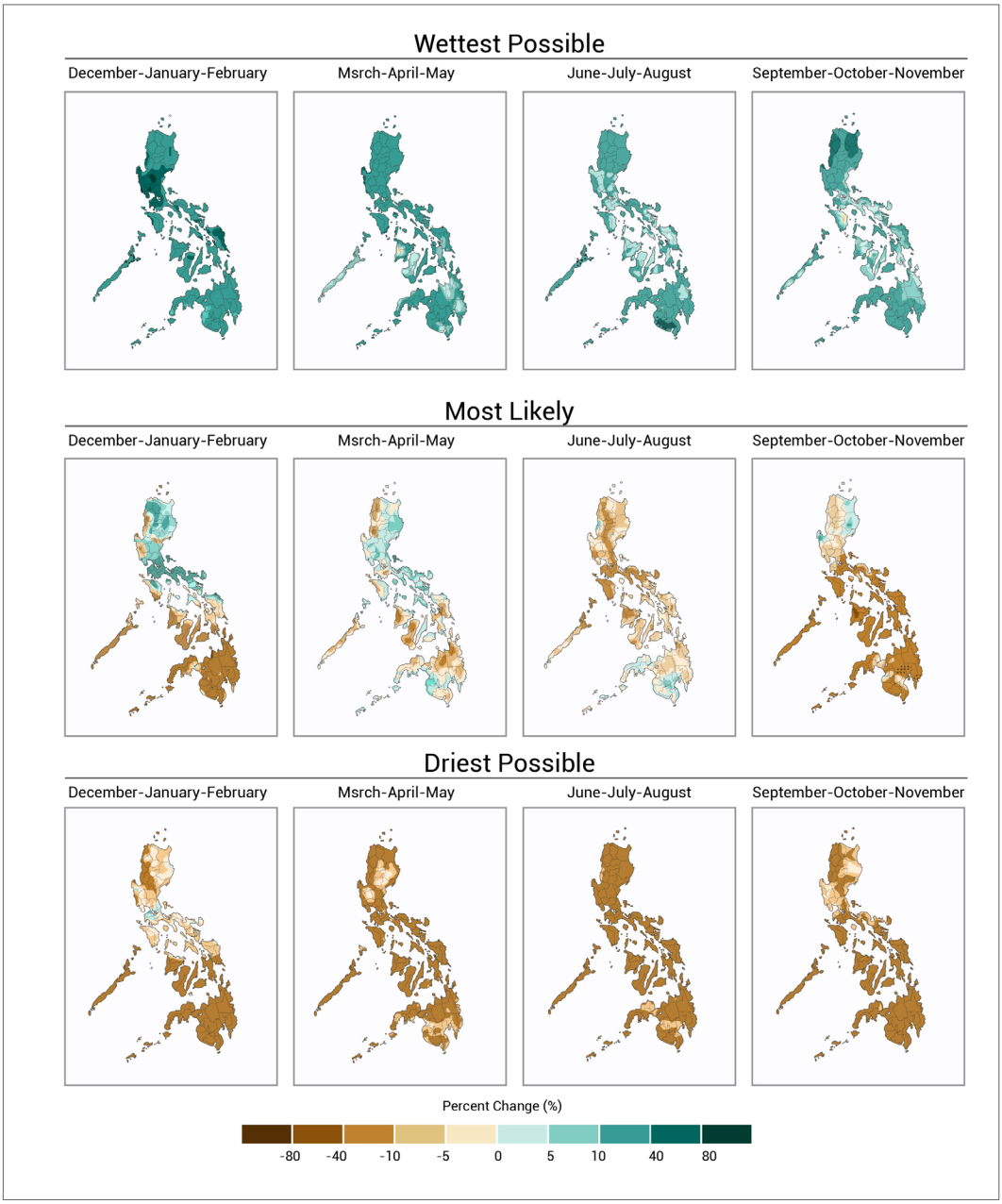
The NSS seeks to make vulnerability reduction an integral part of development. Vulnerability reduction involves instituting prevention and mitigation measures to avoid or reduce the impact of climate change and disasters on the community. These may include redundancy routes to provide access to areas affected by hazards.

The Philippines is prone to both geological and hydrometeorological hazards. The frequency and severity of these hazards, climate change and its impact are expected to increase. Thus, the Philippines ranks third among the countries with the highest disaster risk in the world, after Vanuatu (1st) and Tonga (2nd), according to the World Risk Report 2016.

Based on the climate projections in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, which uses emission scenarios or Representative Concentration Pathways, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) estimates the country's average temperature to be warmer at 0.9-1.9 °C[2] to 1.2-2.3 °C[3] by mid-21st century (2036-2065). The projected changes in seasonal rainfall in most parts of the country are expected to be within the range of its natural variability. These changes are strongly influenced by the El Niño Southern Oscillation, except for a highly likely drier future over the central sections of Mindanao. Projections further reveal, although with low confidence, that wetter conditions associated with extreme rainfall events could be experienced over most parts of Luzon and western sections of the Visayas. Sea level rise, faster than the global average, has been observed in some coastal areas in the country, and this condition is projected to continue.

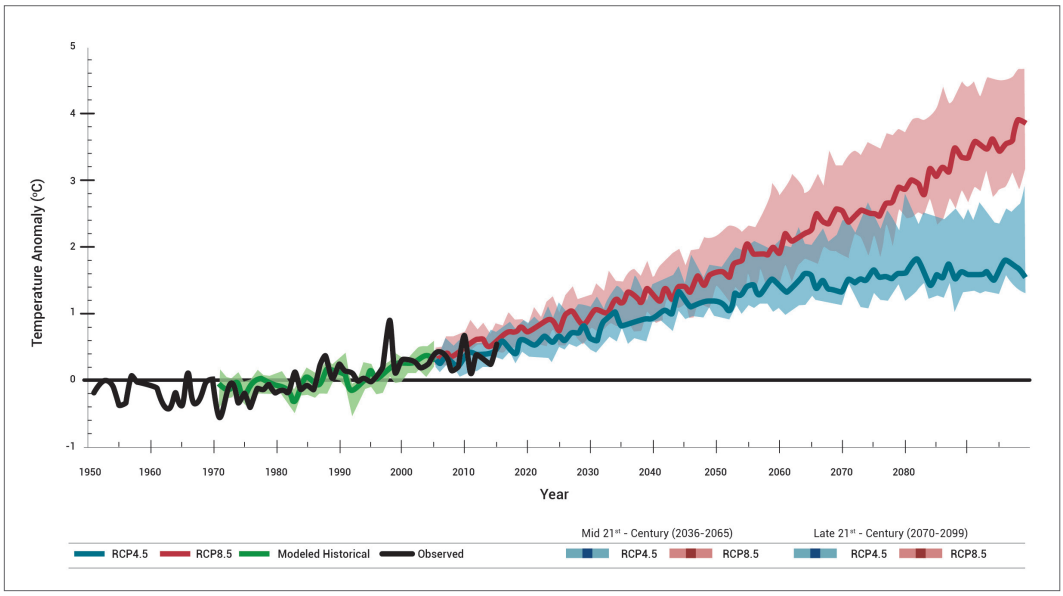
[2] Under the RCP4.5: Stabilization without overshoot pathway to 4.5 W/m² at stabilization after 2100.
[3] Under the RCP8.5: Rising radiative forcing pathway leading to 8.5 W/m² in 2100.

Figure 3.6 Projected Changes in Seasonal Rainfall in the Mid 21st Century (2036-2065) relative to 1971-2000 under High Emission Scenario (RCP8.5)



Source: DOST-PAGASA

Figure 3.7 Annual Mean Temperature



Source: DOST-PAGASA

Disaster and climate risks erode development gains and hamper the full development of the country's potentials. Such risks may be attributed to several factors including the country's geophysical condition and uncontrolled and unsustainable development, particularly in ecologically-sensitive and hazard-prone areas.

The primary concern is to reduce the risks on the communities exposed to the threats of climate change impact and disasters. Essential to this is an analysis of hazards present in an area. Scientific agencies have gained significant accomplishment in hazard mapping. The Mines and Geosciences Bureau completed a 1:10,000 scale hazard map of the country showing flooding and rain-induced landslide-prone areas. The Philippine Institute of Volcanology and Seismology has prepared volcanic and earthquake related maps such as those on tsunami, ground rupture, landslides and liquefaction. On the other hand, PAGASA is mapping hydrometeorological-related hazards such as flooding and storm surge. The Department of Science and Technology, through its Project NOAH (Nationwide Operational Assessment of Hazards), has also produced high-resolution flood hazard maps for the country's major river basins.

Methodologies for determining resilience levels of areas to natural hazards have also been developed. These can be the basis for planning infrastructure, housing, and other services, as well as for designing programs and projects.

Hazard maps, and risk and resiliency methodologies are useful in identifying and designing mitigation measures to minimize the negative impact of hazardous events. Specific climate change adaptation and disaster risk reduction strategies are best formulated at the regional and local levels where specific hazards can be defined. Furthermore, strategies for vulnerability reduction may be incorporated in sectoral plans to ensure the safety and resiliency of the people and the community.

04 Philippine Development Plan 2017-2022 Overall Framework

Chapter 4

Philippine Development Plan 2017-2022 Overall Framework

The Philippine Development Plan (PDP) 2017-2022 is the first medium-term plan anchored on the AmBisyonNatin2040, consistent with Executive Order No. 5, s. 2016. The priorities are guided by the Duterte Administration's 0 to10-point Socioeconomic Agenda, the regional consultations conducted by the various planning committees, and the social development summits that culminated in the 20@22 Agenda: *Malasakit at Pagbabago*.

The goal of the PDP 2017-2022 is to enable Filipinos to attain a *matatag, maginhawa at panatag na buhay*. It acknowledges the accomplishments of the previous administrations, adopts the good practices and carefully considers the lessons gleaned from these experiences.

Assessment and Challenges

The performance of the economy during the past administration, though impressive, actually fell short of the targets set in the PDP 2011-2016. In contrast, those pertaining to the social dimension – reducing poverty incidence and unemployment rate – surpassed the target. The target to significantly reduce underemployment, however, remains elusive.

INDICATOR (IN PERCENT)	TARGET			ACCOMPLISHMENT		
	2014	2015	2016	2014	2015	2016
GDP growth rate	6.5 - 7.5	7.0 - 8.0	7.0 - 8.0	6.2	5.9	6.8
GVA in AFF	(0.9) - 0.1	2.0 - 3.0	2.5 - 3.5	1.7	0.1	-1.3
GVA in Industry	9.8 - 11.0	8.6 - 9.7	9.3 -1 0.3	7.8	6.0	8.0
GVA in Services	6.0 - 6.9	6.8 - 7.8	7.2 - 8.1	6.2	6.8	7.5
Unemployment rate	6.7 - 6.9	6.6 - 6.8	6.5 - 6.7	6.6	6.3	5.5
Underemployment rate	19	18	17	18.4	18.7	18.3
Poverty incidence		22.5			21.6	

Note: Figures in red imply that the accomplishment is below target.

The country's gross domestic product grew at an average of 6.1 percent during the period 2010-2016, the fastest 6-year moving average since 1978, although this was still below target. The 2014 below-par performance of 6.2 percent growth rate could be explained as due to typhoon (TY) Yolanda. The slowdown in 2015 largely reflected in the Industry sector was, perhaps, due to capacity constraints in major roads, ports and airports, as well as government underspending. The poor performance of Agriculture, meanwhile, can be traced to extreme weather events experienced by the country across the spectrum – tropical cyclones, El Niño-induced drought – and pest infestation. Worse, output in the fishery subsector suffered consecutive declines for six out of the past seven years, except in 2013.

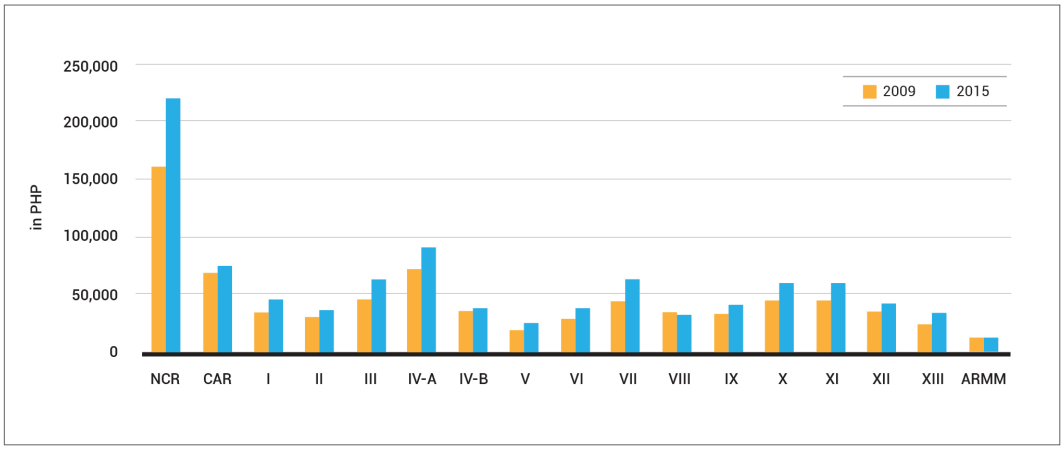
The more serious criticism against the Philippines' growth profile is the stark inequality in development. As illustrated in **Figure 4.1**, the per capita Gross Regional Domestic Product (GRDP) in the National Capital Region is not only the highest, but is more than twice that in CALABARZON (Region 4A), second highest per capita GRDP) and more than twelve times that in the Autonomous Region in Muslim Mindanao MM (lowest per capita GRDP).

The unemployment rate targets were surpassed. This was achieved by the dramatic reduction in the youth unemployment rate, from 16.6 in 2010 to 11.6 in 2016. Apart from the increased labor demand in support of economic growth, a big factor was the expansion of the Pantawid Pamilyang Pilipino Program (Pantawid Pamilya) to the secondary level and, beginning 2016, the implementation of the senior high school program, which increased school participation (and, therefore, reduced labor market participation) of those aged 15 to 17 years.

The underemployment rate, however, remained high. Despite the poor economic performance of agriculture, it continues to account for a significant share of employment – close to 30 percent. But the jobs available were seasonal and low-paying, hence, underemployment in the agriculture sector was about 25 percent, compared to 20 percent in industry and close to 15 percent in services.

The target to reduce poverty incidence was also met. From a baseline of 26.3 percent poverty incidence in 2009, the target was to reduce this to 22.5 percent in 2015 but the actual rate was 21.6 percent. This was due to the 82 percent increase in per capita income among the bottom three deciles, which was

Figure 4.1 Per Capita GRDP in Constant Prices, 2009 and 2015



much higher than the 29 percent increase in the poverty line. Subsistence incidence also declined from 10.9 percent of individuals in 2009 to 8.1 percent in 2015.

A major factor that resulted in the significant decline in poverty rate is the expansion of Pantawid Pamilya. Pantawid Pamilya provided cash transfers to family beneficiaries conditional on the attendance in school of child members and in Family Development Sessions of parent/s and the healthcare seeking behavior of families. In fact, the decline in poverty incidence would have been more pronounced had individuals and families been more resilient, and the economic sectors more prepared to withstand natural and human-induced shocks, or at least able to recover quickly from the shocks. Food inflation, though generally tame throughout the period 2010-2015, rose to at least 7 percent from June to October of 2014 due to the lingering effects of TY Yolanda, which was made worse by the decision to restrict rice imports in mid-2013. This situation proved very detrimental to the poor given that a sizable share of their budget goes to food, particularly rice.

Viewed from the perspective of the average citizen, however, the recent progress made in the economy and governance offers no immediate relief from the grind of daily living. There is a prevailing sense among significant sections of the population – the farming communities that must deal with drought and typhoons, the rural folk who have no access to health and other social services, the urban poor who have the put up with the congestion and the neighborhood bullies, the minimum wage earners and middle-level professionals who must spend time in traffic travelling to and from work, the fresh college graduates as well as the credit-constrained small entrepreneurs whose time and energies are exhausted going through the bureaucratic maze to obtain clearances, the aggrieved ordinary citizen with no access to the authorities to obtain redress for substandard service – that either too little is being done or they have been completely bypassed by Government. This situation, where citizens feel increasingly alienated from their government, cannot be allowed to persist. Otherwise the door is opened for opportunists promising quick fixes that could only lead to far worse outcomes.

That many aspects of people's welfare are in fact only weakly reflected in earned incomes[1] should underscore the urgency of paying attention to outcomes in gauging the success of government actions. Although sustaining the momentum of economic growth must remain a key objective, the real measure of achievement is the extent to which people's lives have been improved.

Strategic Framework

By the end of 2022, more Filipinos will be closer to achieving their AmBisyon to have a "*matatag, maginhawa at panatag na buhay*." The Administration will lay down a solid foundation for more inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy.

[1] Philippine Human Development Network. (1994). *Philippine Human Development Report*. Retrieved from http://www.hdn.org.ph/1994-philippine-human-development-report-human-development-and-peoples-participation-in-governance/.

Targets

The Philippines will be an upper middle income country by 2022. In the medium-term, GDP growth is expected to strengthen further to 7-8 percent, in real terms. This means that the economy will expand by about 50 percent by 2022 from its base in 2016. Per capita income will increase from USD 3,550 in 2015 to at least USD 5,000 in 2022.[2]

Growth will be more inclusive as manifested by a lower poverty incidence in the rural areas, from 30 percent in 2015 to 20 percent in 2022. Overall poverty rate will decline from 21.6 percent to 14.0 percent in 2022 – equivalent to lifting about 6 million Filipinos out of poverty. The proportion of subsistence poor individuals will fall from 8.1 percent to 5.0 percent. Food inflation will also be closely monitored, to serve as an early warning indicator on the welfare of the poor. It should not go beyond the bounds set for overall inflation, which is at 2 to 4 percent.

The Philippines will have a high level of human development by 2022.[3] This will be supported by improvements in education and health outcomes and the significant increase in incomes indicated above.

The unemployment rate will decline from the current 5.5 percent to 3-5 percent in 2022. Assuming a slight increase in labor force participation rate to 64.1 percent, this implies that 950,000 to 1.1 million new jobs will be generated per year. Youth unemployment rate will decline to about 8 percent from the current 11 percent[4]. In areas outside NCR (AONCR), emphasis will be on improving the quality of employment. The underemployment rate in AONCR will be reduced to 16-18 percent by 2022.

There will be greater trust in government and in society. The indicators for this will need to be developed and then measured by the Philippine Statistics Authority for 2017 and 2022.

Individuals and communities will be more resilient. It should be noted that the Philippines ranks fourth in terms of number of natural calamities faced in 1995-2015[5]. This is on top of risks from human-induced hazards like ideologically-motivated conflict, criminality, house fires, etc. Building up resilience involves reducing exposure to hazards, mitigating the impact of the risks, and accelerating recovery if and when the risk materializes. An index will be developed, considering the interplay of these three components; data will be collected to estimate the baseline (2018) value and the value in 2022.

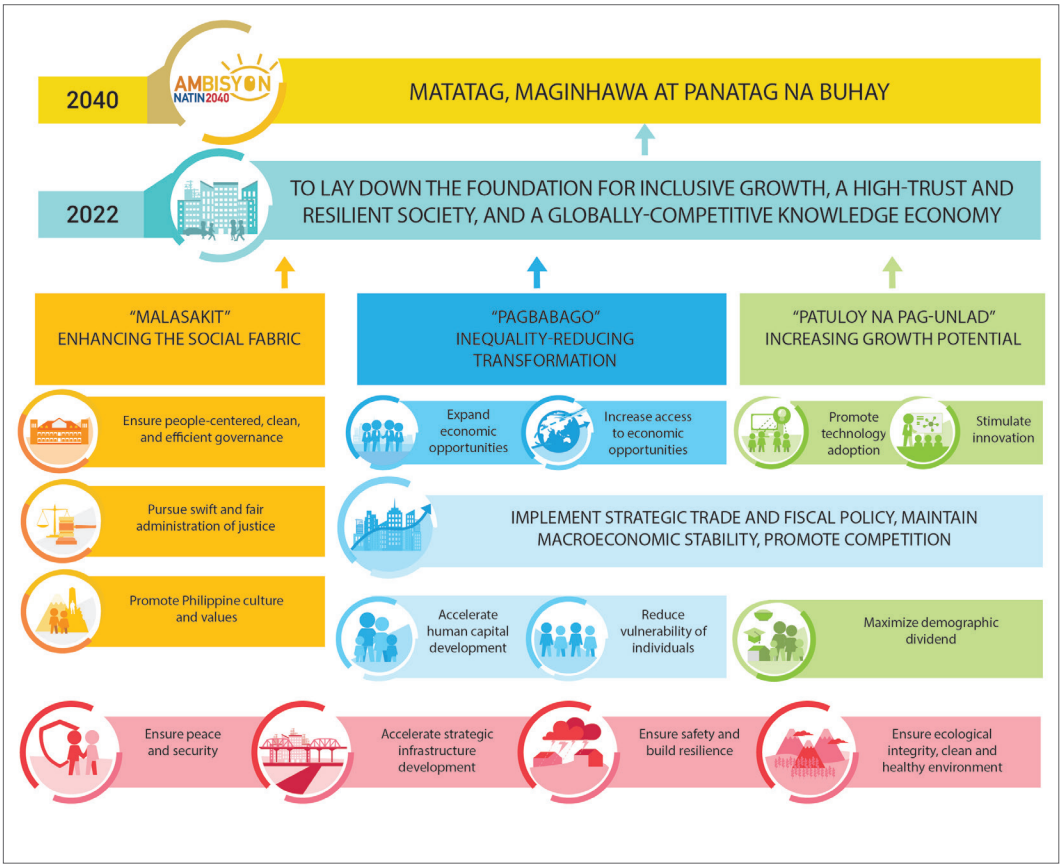
Filipinos will have greater drive for innovation. As measured by the Global Innovation Index, the Philippines will rank among the top one-third by 2022 from being in the top 60 percentile (74 out of 128 economies) in 2016. More individuals will be encouraged to obtain knowledge, or acquire skills and expertise. There will be more of the youth and adults (aged 15 and up) who will be engaged in employment, education or training.

Strategies

The strategies to achieve the targets cited above fall under the three major pillars of "*Malasakit*," "*Pagbabago*," and "*Patuloy na Pag-unlad*". There are cross-cutting strategies, as well, to support the other interventions and to provide a solid bedrock for all strategies to work.

[2] Figures in US$ are in PPP terms, using the Atlas method.
[3] Based on the UNDP's Human Development Report country groupings
[4] Figure corresponds to the October round of the LFS.
[5] The Human Cost of Weather-Related Disasters 1995-2015.

Figure 4.2 PDP 2017-2022 Overall Strategic Framework



Enhancing the social fabric: The aim is to regain peoples' trust in public institutions and cultivate trust in fellow Filipinos.

Public offices will be characterized as people-centered, efficient and clean (*Chapter 5*). Government offices will be equipped with adequate facilities, personnel will be trained and systems will be improved to ensure the prompt delivery of services. Citizens will be also empowered to engage with the government.

Administration of justice will be perceived as swift and fair (*Chapter 6*). From a fragmented mode of delivering justice, a "sector approach" will be adopted. Processes -- from lodging of complaints to investigation, prosecution, and conviction -- will be streamlined and harmonized across the different agencies in the executive and judiciary branches of government. Systems to exact accountability (including indicators of efficiency) will be put in place.

Filipinos will have increased awareness of and will learn to value the country's cultural diversity and shared heritage (*Chapter 7*). Existing traditions will be meticulously documented and archived in Knowledge Development Centers and Institutes of Living Traditions to be established across the country. Heritage conservation plans will be formulated and implemented. Cultural education will be mainstreamed in basic and higher education.

Values for the common good, to include "*malasakit*" values, will be promoted using several media and integrated in school curricula. Personnel in government will also be taught about these values and how these will be demonstrated in public service.

"*Pagka-malikhain*" for development is another value that will be advanced under the PDP 2017-2022. This will include building awareness and appreciation for the arts, and then promoting creative excellence.

Inequality-reducing Transformation: Ordinary Filipinos will feel the "*Pagbabago*".

For each *economic sector*, there will be more opportunities for growth of output and income, and sub-sectors and economic groups that used to lag behind, like small farmers and fisherfolk and MSMEs, will benefit from these opportunities (*Chapters 8 and 9*).

Opportunities in agriculture will be expanded by fostering linkages with the industry and service sectors for more efficient value-adding processes and more effective commercialization. For this to happen, productivity in agriculture will need to be raised. This will be done by first developing an integrated agricultural map to identify the comparative advantage of particular areas. Then, collaboration between and among the science, technology and extension systems in agriculture will be strengthened. Greater farm mechanization and technology adoption will be promoted. Organized farm management will be encouraged to achieve economies of scale. Climate-resilient small-scale irrigation systems will be constructed or retrofitted, as necessary.

The governance framework for fisheries management will be improved to make it effective. This includes, though is not limited to, undertaking regular fish stock inventory, strictly enforcing measures against illegal, unreported and unregulated fishing, and regulating fishery structures. As with agriculture, the fishery subsector will also benefit from stronger linkages with the Industry and Service sectors for value-adding, packaging, storage, transport, distribution and marketing, and even financing.

The Industry and Service sectors will be globally competitive as the country strengthens its economic ties with other countries. Domestic suppliers, including MSMEs, will be encouraged to maximize the benefits of existing free trade agreements and other cooperative arrangements.

Increasing presence in the global market, supply and value chains will be made more efficient with stronger forward and backward linkages. This will require a dependable supply of raw materials, adequate labor and technology, and the presence of suitable soft and hard infrastructure.

Inclusive business models and social enterprises will be developed to better engage MSMEs.

MSMEs will enjoy easier access to finance. At the same time, financial literacy training will be provided to MSMEs, cooperatives, and to Overseas Filipinos and their families.

Restrictions on foreign investments will be eased and bureaucratic processes for both local and foreign investors will be streamlined.
Individuals and people groups will have more options to develop their full potential as aimed for**.** (*Chapter 10*).

Nutritional and health status will be improved by ensuring access to proper care at all life stages. Health financing programs will be sustained.

Lifelong learning opportunities will be made available to all. Government will invest in soft and hard infrastructure for basic education to make the facilities more accessible and the curriculum more relevant. Quality of higher and technical education will be improved so that they produce competent and highly nimble individuals and workforce.

Policies and programs will be put in place to increase the income-earning ability of individuals. These include apprenticeship and internship programs, opportunities for re-tooling and skills enhancement, and policies to promote work-life balance and ensure that workers receive decent wages.

Vulnerability of individuals will be reduced (*Chapter 11*). Some individuals and people groups have inherent vulnerabilities, like children, older persons, women, persons with disabilities, and indigenous peoples. Policies and programs will be put in place to ensure that their social, cultural and economic rights are protected and that they are eventually empowered to participate in the development of the country. There will also be programs to help ensure the well-being of individuals and families against economic risks, natural and human-induced hazards.

Communities will be more resilient (*Chapter 12*). The housing program of the Duterte Administration will be in line with the new urban agenda of developing integrated neighborhoods and sustainable communities. Innovative solutions to housing construction will be encouraged and alternative modes of financing will be developed to improve the access of families to decent housing. Community relations will be strengthened and community organizations will be empowered to engage with government in ensuring the safety, security and development of their communities.

Increasing potential growth: It is imperative that economic growth is accelerated and sustained for "*Patuloy na Pag-unlad*." A major strategy to sustain and further accelerate growth in the future is by graduating to a knowledge economy (*Chapter 14)*. Science, technology and innovation (STI) in agriculture, industry and service sectors will be promoted and even accelerated. Policies and programs to facilitate knowledge flows and protect intellectual property rights will be put in place or enhanced. A culture of creativity will be created, beginning with the very young students in basic education and all through higher and technical education. Innovation hubs will be established as a way of providing venues to nurture creativity and innovation.

Potential growth can be further enhanced by accelerating the full harvest of the demographic dividend (*Chapter 13*). There will be aggressive efforts to ensure that families will be of the size that they can adequately care and provide for. Age-appropriate sexuality education will be integrated in the school curriculum. Full information and orientation programs on responsible parenthood and reproductive health will be made widely available. Access to services will also be made easier in order to fully meet the need for modern family planning methods. This will be complemented by measures to increase the labor market participation of women, to defer childbearing and attain wholesome birth spacing (*Chapter 14*).

Enabling and supportive economic environment. Growth will be supported by maintaining macroeconomic stability, putting in place a strategic trade and fiscal policy, and enhancing access to financial services. The tax system, including its administration, will be made simpler, fairer, more equitable and internationally competitive (*Chapter 15*).

Market competition will be enhanced (*Chapter 16*). There will be broad-based communication and advocacy efforts to increase awareness about the benefits of market competition. Reporting and feedback mechanisms will also be developed through which consumers can report on anti-competitive behavior and practices of firms. At the same time, government policies and regulations will be reviewed to ensure competition-neutrality.

Foundations for sustainable development. The physical environment, on the other hand, will be characterized by a balanced and strategic development of infrastructure, while ensuring ecological integrity and a clean and healthy environment.

The next six years will be characterized as the "golden age of infrastructure" in the Philippines (*Chapter 19*). Spending on infrastructure will increase to at least 5 percent of GDP from less than 3 percent previously. The program will be rationalized based on strategic masterplans effecting inter-regional connectivity and integrated province-level plans, some of which will be developed and some updated. There will be greater complementation of the different modes of financing infrastructure projects – locally-funded, foreign assisted, and projects under public-private partnership.

Implementation of the infrastructure program will be fast-tracked by adopting a 24/7 work schedule for major infrastructure projects. Other issues will be addressed by better governance, policy and regulatory reforms such as the creation of an apex body to coordinate efforts in the water resource sector, ensuring availability of right-of-way, and streamlining processes in the issuance of permits necessary to implement the projects.

All these will be underpinned by ensuring national security against internal and external threats (*Chapter 17*). There will be earnest efforts to secure lasting peace through the resumption of peace talks and pursuing social justice. Agreements to resolve the conflict will be negotiated and implemented. Communities in the conflict-affected and conflict-vulnerable areas will be protected and developed. Government peace and development institutions will be strengthened to make them more responsive to peace, conflict and security issues.

Territorial integrity and sovereignty will be upheld and protected (*Chapter 18*). This will be achieved by strategic diplomacy and by continuously upgrading our defense capability. Government will strengthen bilateral relations, alliances and mutually-beneficial partnerships, ensure a strong presence in regional and multilateral forums, and develop new security and cooperation arrangements. The capability of the military, including law enforcers in terms of facilities, equipment and skills will be enhanced to protect our strategic interests and to effectively implement laws and policies.

A top priority of the Duterte Administration is the reduction of all forms of criminal laws and illegal drugs. This will be done through a holistic program that involves not only combatting crimes but also the corruption that perpetuate such acts (Chapter 19). The approach will be comprehensive and will include information and education campaigns, community organization and mobilization, and police-community partnerships to ensure public order and safety.

An important partner of development is the environment and natural resources (ENR) sector. Its contribution should be properly recognized, to wit: provisioning (*e.g., food, raw materials, freshwater*), regulating (*e.g., local climate and air quality, carbon sequestration and storage, erosion prevention*), supporting (*e.g., habitats for species, maintenance of genetic diversity*)

and cultural (*e.g., recreation, tourism*). However, improper use and abuse of ENR greatly diminishes the quantity and quality of its contribution to development and, if left unchecked for some time, can result in the deterioration of the quality of life of the people it serves.

The PDP 2017-2022 contains strategies to rehabilitate and restore degraded natural resources, and protect fragile ecosystems. Even in urban areas, green spaces will be expanded. At the same time, there will be programs to improve the welfare of resource-dependent communities as they take on the role of primary stewards of the ENR (*Chapter 20*). The interventions will be designed following a ridge-to-reef approach and a sustainable area development framework so that the interdependence of the different ecosystems are considered. Policies to define property and usufruct rights will be put in place so that responsibilities for care and management of the ENR are identified.

Migration and development. The PDP 2017-2022 gives attention to the special circumstances of OFs and their families, and aims to empower OFs toward inclusive and sustainable development. The objectives are to protect their rights and improve their well-being, whether here or abroad, strengthen their engagement in governance and facilitate their participation in our country's development, and ensure their smooth reintegration in Philippine society. The appropriate strategies are discussed in the relevant chapters of the PDP.

The next chapters are structured similar to this overview chapter. Each chapter begins with an assessment of previous accomplishments and the lessons learned. This is followed by an enumeration of the medium-term targets, all directed to the attainment of the 0-10 Socioeconomic Agenda and towards AmBisyon Natin 2040. The strategies to meet these targets are then elaborated next.

PART II

ENHANCING THE SOCIAL FABRIC ("MALASAKIT")

05 Ensuring People-Centered, Clean, and Efficient Governance

Chapter 5

Ensuring People-Centered, Clean, and Efficient Governance

A high-trust society broadens the opportunities for inclusive development. This trust is between citizens, peoples, the private sector, and government. A high-trust society is a necessary condition for facilitating official and business transactions, as well as interpersonal relationships. Citizens obey the law; they willingly pay the correct taxes trusting that government will prudently manage the fiscal resources. Government, in turn, is able to allocate adequate resources for public goods and services, especially to those who need them the most. The needy who benefitted from the prompt delivery of adequate services are then accorded better chances of achieving more in life. The taxpaying public, meanwhile, is able to pursue further their economic and other interests, secure in the knowledge that their rights over the fruits of their labor are protected, first by government and also by their fellow citizens.

The cornerstone of a high-trust society is the trust in government. This chapter discusses strategies to ensure a people-centered, clean, efficient, and effective governance by strengthening institutions, engaging and empowering citizens, and providing enabling mechanisms to improve access to public goods and services.

Assessment and Challenges

The previous Philippine Development Plan (PDP) focused on increasing transparency, citizen's participation, and accountability. Significant achievements were made but much needs to be followed through in the current administration.

Reforms contributed to the improvement of the Philippine rankings in most global indicators. Although the country gained recognition from international award-giving bodies, it still ranked lower than most of its neighbors in the Association of Southeast Asian Nations (ASEAN). The challenge now is to strengthen the system and sustain or even surpass past achievements.

In 2015, the Philippines met and even exceeded the end of plan (EOP) target for voice and accountability (≥50%) in the Worldwide Governance Indicators, but it did not reach the targets for other core indicators under governance. Compared to past percentile rankings, however, it rose steadily over the past six years, indicating effectiveness of governance reforms. This boosted the country's ranking higher than most ASEAN countries in Voice and Accountability. However, control of corruption remained an issue *(Table 5.1)*.

Table 5.1 Philippines' Performance in the Worldwide Governance Indicators (WGI) vs. Selected ASEAN Counterparts, 2010-2015

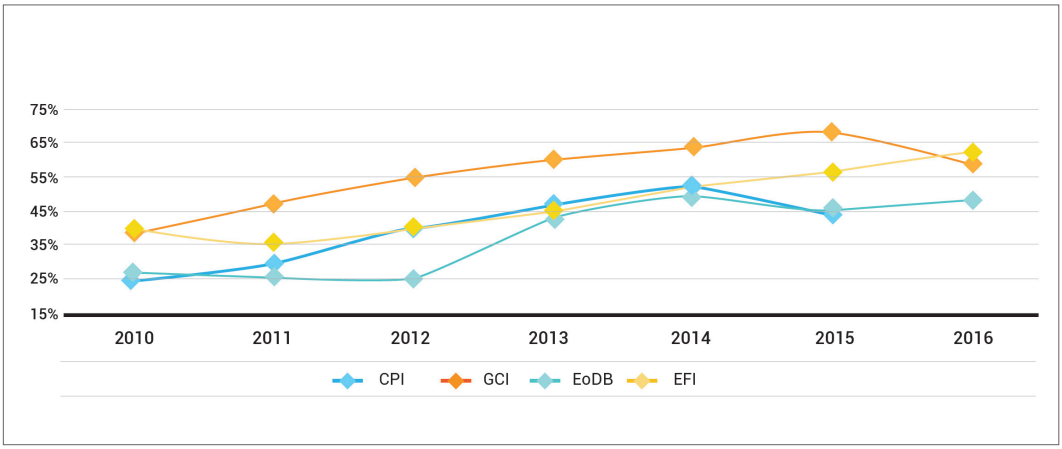
COUNTRY	VOICE AND ACCOUNTABILITY			GOVERNMENT EFFECTIVENESS			CONTROL OF CORRUPTION		
	2010	2013	2015	2010	2013	2015	2010	2013	2015
Indonesia	47.87	49.30	52.22	47.37	47.39	46.15	25.24	30.81	38.46
Malaysia	33.65	38.50	36.45	82.78	79.15	76.92	62.86	68.25	65.87
Philippines	48.34	47.89	51.72	55.50	59.24	57.69	22.38	43.13	41.83
Singapore	40.76	52.58	42.86	100.00	99.53	100.00	98.57	96.68	97.12
Thailand	32.23	33.80	23.65	62.20	62.09	65.87	48.57	49.29	43.75
Vietnam	8.53	11.74	10.84	45.93	46.45	55.29	31.43	36.49	39.42

Source: World Bank (WB)

Over time, the country's Corruption Perceptions Index (CPI) improved except in 2015, which may be attributed to the Priority Development Assistance Fund scam. Even so, the business and economic climate of the country steadily rose, with favorable results for the indices on Economic Freedom (EFI), Global Competitiveness (GCI), and Ease of Doing Business (EODB) *(Figure 5.1)*. Economic Freedom reached its peak in 2016 (62pctl), the highest ever since the EFI's first ranking in 2008. Stable macroeconomic environment, favorable market size, and increased business sophistication drove the steady increase of the country's ranking in GCI. Meanwhile, ease of trading across borders and ease of getting electricity promoted the country's rankings in the EODB Index.[3]

[1] The closer to 100 percent, the better the percentile rank.
[2] The WGI is a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI is a research project of the World Bank since 1996 and covers 211 countries.
[3] World Bank, 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Retrieved from: http://www.doingbusiness.org/reports/global-reports/doing-business-2016

Figure 5.1 Philippines' Percentile Rank (pctl) in Selected Governance Indices, 2010 to 2016



Sources: 2010-2016 reports from Transparency International's Corruption Perceptions Index (CPI)[4]; WorldEconomic Forum's Global Competitiveness Index (GCI)[5]; World Bank's Ease of Doing Business (EODB) Index[6]; Heritage International's Index of Economic Freedom (EFI)[7]

More than the improvement in global ranking, the current administration aims to make government services more accessible by reducing requirements, processing time, and the signatories for the transactions. The challenge is to ensure that delivery of services is effective and efficient at all levels. For example, the Ease of Doing Business report[8] notes that it takes 28 days for a business to secure a permit, longer than the President's directive of three days. Among citizens, there have been complaints about accessing basic services such as getting driver's licenses and passports.

Platforms for participatory governance were established but the general public was not yet deeply involved. As part of the Bottom Up Budgeting (BUB) approach to local planning and budgeting, 98 percent of cities and municipalities formulated their local poverty reduction action plans, surpassing the target of 95 percent; 55,480 projects were implemented.[9] Under the Kapit-Bisig Laban sa Kahirapan-Comprehensive Integrated Delivery of Social Services program, 7,021 community projects have been completed in collaboration with people's organizations (POs) and civil society organizations (CSOs).

[4] The Corruption Perceptions Index measures the perceived level of public sector corruption in 178 countries and territories based on 13 expert and business surveys. The score ranges from 0-100, where 0 means that a country is perceived as highly corrupt and 100 means that a country is perceived as very clean.
[5] The Global Competitiveness Report analyzes competitiveness along 12 pillars: institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication and innovation.
[6] The Doing Business project ranks 190 economies and selected cities at the subnational and regional level in terms of: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency.
[7] The Index of Economic Freedom evaluates countries in four policy areas that affect economic freedom: rule of law; limited government; regulatory efficiency; and open markets.
[8] World Bank. 2017. Doing Business 2017: Equal Opportunity for All. Retrieved from: http://www.doingbusiness.org
[9] Open Government Partnership (OGP). 2014 Results. https://www.opengovawards.org/2014results

In November 2012, the Commission on Audit (COA) launched the Citizen Participatory Audit (CPA) Program. This initiative to open the audit processes to citizens and CSOs was intended to improve effectiveness and efficiency in the use of public resources.[10]

Vibrant civic engagement was also apparent in the May 2016 national elections, with a record-high voter turnout rate of 81 percent.[11]

Platforms for citizen participation were made available but these were underutilized by the general public. Two possible reasons are ignorance and apathy[12] because of misinformation or lack of proper information. In line with the current administration's thrust to directly engage the public at all levels, the previous platforms must be reviewed and modified for a more effective citizen engagement. At the same time, shared responsibility and accountability with civil society must be strengthened.

Government data were made available to the public; however, there was no context-sensitive or contextual measure of performance. Government data such as budgets, statistics, plans, and other relevant documents were made available using the Open Data portal (www.data.gov.ph). Government agencies also increased their online presence through websites and pages in social media platforms.

Provinces, cities, and municipalities (PCMs) garnered 76 percent full compliance to the Full Disclosure Policy (FDP), exceeding the target of 75 percent. Furthermore, all national government agencies (NGAs), government-owned and controlled corporations (GOCCs), and local government units (LGUs) are now registered in the Philippine Government Electronic Procurement System (PhilGEPS). As of 2015, 87 percent of NGAs and GOCCs used the PhilGEPS to publish their invitations to bid and contracts awarded as required by the Government Procurement Reform Act (RA 9184).

Almost all NGAs, GOCCs, and state universities and colleges (SUCs) complied with the transparency requirement to post budget and program information: 98 percent in 2015, compared to 87 percent in 2012. Moreover, updated citizen's charters for 99 percent of NGAs and GOCCs were posted in conspicuous places. Submission of statements of assets, liabilities, and net worth (SALN) of public officials and civil servants was at 96 percent. The report on ageing of cash advance also increased to 98 percent in 2015 from 91 percent in 2012.

However, despite the multitude of available data online, it was still difficult to gauge the performance of the sector. Several global indices were available but these were not contextual to the Philippine setting. Thus, there is a need to develop local indicators to measure the progress of good governance initiatives. This information must also be made available and easily understandable to the public. Moreover, the quality of the data shared must be scrutinized as these are instrumental in the development of programs.

Measures to improve public service delivery and accountability were enhanced but compliance to standards remains low. LGUs garnered 74 percent compliance with respect to public financial management (PFM) standards in the 1st quarter of 2016,

[10]Affiliated Network for Social Accountability in East Asia and the Pacific (ANSA-EAP). 2012. *Citizen Participatory Audit*. Retrieved from: http://www.ansa-eap.net/projects/citizen-participatory-audit/

[11]Commission on Elections (COMELEC). August 12, 2016. *Comelec: Filipinos Satisfied with Automated Polling System*. Retrieved from: http://www.comelec.gov.ph/?r=2016NLE/PressRelease/12Aug2016pr3

[12]Jayeel Serrano Cornelio. February 22, 2016. "Millennial Apathy". *Rappler.com.* Retrieved from: http://www.rappler.com/thought-leaders/123340-millennial-apathy

surpassing the EOP target of 65 percent. Incentive-based initiatives, such as the Seal of Good Local Governance (SGLG) and the Performance Challenge Fund (PCF), proved very effective in positively influencing the performance of local government units nationwide. LGUs conferred with the seal were provided with the Performance Challenge Fund that funded some anti-poverty projects in these LGUs.

Citizen feedback on the kind and quality of services rendered by the city and municipal governments were gathered through the Citizens' Satisfaction Index System in 163 LGUs, exceeding the target of 153. Moreover, the Contact Center ng Bayan has grown steadily, reporting 63,281 complaints in 2015, a big improvement from the 2,685 in 2010.

The Civil Service Commission (CSC) expanded the coverage of the Report Card Survey (RCS), a critical component of the Anti-Red Tape Act (ARTA) of 2007 (RA 9485),[13] from 50 frontline agencies in 2010 to 1,109 agencies in 2016. Passing rates have also improved from 78 in 2010 to 93 percent in 2016.

The Inter-Agency Anti-Corruption Coordinating Council was established to institutionalize transparent, accountable, and participatory governance. Anti-corruption initiatives were also intensified in the bureaucracy. The Governance Commission for GOCCs (GCG) was created in 2012 to fight corruption in government-owned and controlled corporations and improve the quality of management.

In local government, reforms were also introduced in the *Sangguniang Kabataan* (SK) with the inclusion of an anti-political dynasty provision, increase in the age requirement to 18-24 years, and training for SK officials on good government practices and fiscal transparency.[14]

Public financial management reforms were also implemented. However, challenges remain in implementing these reforms, particularly the linkage of planning, budgeting, cash management, accounting, and auditing across the bureaucracy. Inter-operability remains an issue. In particular, the Government Integrated Financial Management Information System (GIFMIS) has not been fully established. Gaps in the information and communications technology (ICT) environment for financial control and accountability also need to be addressed. Moreover, those that have been proven effective must be institutionalized, preferably through legislation.

New imperatives in planning and budgeting must also be implemented. Examples are the application of enterprise risk management for financial and operational risks, which is a requirement for certification by the International Organization for Standardization (ISO) 9001:2015, and the mainstreaming of green growth principles in the planning process.

Measures to improve efficiency and competence of public service were initiated but these should be accompanied by higher absorptive capacity and better access to information. The Public Management Development Program capacitated 654 senior executives and middle managers in 2016, exceeding its target of 513. Various competency-based training programs have been implemented such as the Public Financial Management Certificate Program, Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM), and Government Procurement Policy Board procurement training courses.

[13]The ARTA is a law that aims to improve efficiency and prevent graft and corruption in the delivery of government services by reducing bureaucratic red tape and increasing accountability and transparency.

[14]Rappler.com. January 19, 2016. *Aquino Signs Law for Sangguniang Kabataan Reforms.* Retrieved from: http://www.rappler.com/nation/119571-aquino-signs-sangguniang-kabataan-reform-act

Since the institutionalization of the Government Quality Management Program in 2007, certification for ISO 9001 Certified Quality Management Systems (QMS) increased. This included the certification of the Department of Budget and Management, Department of Labor and Employment, *Bangko Sentral ng Pilipinas*, among others. With the priority on the certification of frontline services, offices that are ISO 9001 Certified QMS reached 589, surpassing its target of 498.

The Performance-Based Incentives System (PBIS) was launched and implemented in 2012 through Administrative Order No. 25, s. 2011 and Executive Order No. 80, s. 2012. It was instrumental in upgrading the performance of the bureaucracy because it promoted merit, teamwork, and management control. In 2016, the bureaucracy achieved an overall compliance rate of 96 percent on basic governance conditions, higher than 88 percent in 2012. On performance management systems, the Strategic Performance Management System (SPMS) reached 2,321 agencies, 229 short of its 2,550 target for 2016.

There are legal frameworks and existing policies to improve performance management and accountability in government, such as the Anti-Red Tape Act (ARTA), anti-corruption laws, and the Strategic Performance Management System. However, compliance remains low due to inadequate control mechanisms and the agencies' lack of appreciation of the flexibilities allowed in the system.

Strategic Framework

The Philippine Development Plan 2017-2022 aims for people-centered, clean, efficient, and effective governance. In particular, it aims to reduce corruption, achieve seamless service delivery, enhance administrative governance, strengthen the civil service, and fully engage and empower citizens.

Targets

Global governance indices such as the Worldwide Governance Indicators (WGI), Corruption Perceptions Index (CPI), Global Competitiveness Index (GCI), and Open Budget Index (OBI) will again be used to gauge the country's quality of governance. To address the call for a more context-sensitive indicator, a national governance index will be developed by NEDA and then measured by the Philippine Statistics Authority. *Table 5.2* shows the targets corresponding to the desired subsector outcomes.

Table 5.2 Plan Targets to Ensure People-centered, Clean, Efficient, and Effective Governance

INDICATOR	BASELINE (2016) [15]	END OF PLAN TARGET
Sector Outcome: People-centered, innovative, clean, efficient, effective, and inclusive delivery of public goods and services		
National governance index improved	No existing national governance index	Fully functional national governance index
Subsector Outcome 1: Corruption reduced		
Percentile ranking in the WGI – Control of Corruption improved	42pctl	50pctl
Percentile ranking in CPI improved	43pctl	50pctl
Subsector Outcome 2: Seamless service delivery achieved		
Percentile ranking in the WGI – Regulatory Quality improved	53pctl	60pctl
Percentile ranking in the GCI improved	59pctl	62pctl
Subsector Outcome 3: Administrative governance enhanced		
Percentile ranking in the WGI – Government Effectiveness improved	58pctl	62pctl
Subsector Outcome 4: Citizenry fully engaged and empowered		
Percentile ranking in the WGI – Voice and Accountability improved	52pctl	60pctl
OBI score improved	64/100	71

Strategies

Strategies to improve governance fall under the *Malasakit* pillar of the PDP 2017-2022 *(Figure 5.2)*. The desired outcome is to enhance the social fabric by making government worthy of people's trust.

Figure 5.2 Strategic Framework to Ensure People-centered, Clean, Efficient, and Effective Governance, 2017-2022

[15] Data for WGI are as of 2015. The 2016 rankings will be available by October 2017.

People will trust a government that is clean, efficient, effective and people-centered. Policies and programs must also be responsive to the needs of the people; public goods and services must be delivered in a timely manner. While government is expected to enforce regulations, it must be perceived as fair and the regulations must be seen as necessary and not too burdensome.

The strategic framework to improve governance adopts a culture-sensitive perspective, gender-sensitive paradigm, and human rights-based approach (HRBA) in public service. This ensures that the interests of vulnerable sectors such as indigenous peoples, persons with disabilities, women, youth, and children are well considered. Culture-sensitive governance will be encouraged through awards or incentives. Overseas Filipinos (OFs) will also be encouraged to participate in good governance initiatives (elections, providing feedback on service delivery, among others) in applicable strategies.

Subsector Outcome 1: Corruption reduced

Reducing corruption in government will increase people's trust in government, which explains why "reducing corruption and bribery in all forms" is part of the Sustainable Development Goals (SDG 16). The strategies to reduce corruption include:

Promote public awareness of anti-corruption drives. The media will be used to publicize effective enforcement cases and encourage the public to report corruption. Schools and organizations will also be tapped to educate students and communities on anti-corruption. Corruption prevention talks and ethics development seminars will be done for public servants and the business sector. Integrity Caravans, initiated by the Ombudsman (OMB), during youth and multi-sectoral forum, and barangay good governance seminars will be continued. This will promote and communicate the work and various anti-corruption programs of the OMB, and ways by which the public can be involved.

Implement prevention measures. The legal and policy framework for corruption prevention will be enhanced to ensure compliance with the United Nations Convention Against Corruption (UNCAC) and other international standards. Internal systems and procedures of government agencies will be assessed in terms of corruption vulnerabilities. Partnership with various stakeholders including legislature will be strengthened. The following initiatives are:

- *Developing OMB's Integrity, Transparency and Accountability Program (ITAP),* which answers the need for customized training modules for public officials and private individuals.
- *Continuing implementation of the Integrity Management Program (IMP),* which aims to establish a systematic approach in building, improving, reinforcing, and sustaining a culture of integrity in public sector institutions. The culture is rooted in acceptable values, principles, and standards of good governance.
- *Enhancing the income and asset declaration system by improving the system of filing and analyzing SALN.* The OMB, with the Civil Service Commission and the Office of the President, is pilot-testing the implementation of an electronic-based SALN.

- *Implementing the Blue Certification Program* to revalidate the anti-red tape standards prescribed for business permits and licensing offices in local government units. The program has established a multi-level certification similar to the ISO-certification for management system standards.

Strengthen deterrence mechanisms. Specific initiatives include:

- *Implementing OMB's 8-Point Agenda (2011 to 2018),* namely: (a) disposition of high-profile cases; (b) zero backlog; (c) improved "survival" rate of fact-finding; (d) enforced monitoring of referred cases; (e) improved responsiveness of public assistance; (f) improved anti-corruption policy and program coordination among sectors; (g) rationalization of the functional structure; and (h) enhanced transparency and credibility.
- *Developing a National Anti-Corruption and Advocacy Plan,* a five-year plan that will ease the transition from one administration to the next. It will adopt the National Anti-Corruption Framework, a commitment under the United Nations Convention Against Corruption (UNCAC).
- *Strictly enforcing and monitoring of anti-corruption laws and policies,* which include the Anti-Graft and Corrupt Practices Act, the Anti-Red Tape Act (ARTA), National Guidelines on Internal Control System, Government Procurement Reform Act, mandatory provisions of UNCAC, the Code of Conduct and Ethical Standards for Public Officials and Employees (RA 6713), and the Anti-Money Laundering Act.
- *Implementing the programs under the Investment Ombudsman,* which ensure enforcement of laws, and handle complaints against public officers and employees. This program provides prompt action on investor-related grievances and speedy resolution of investors' complaints.

Subsector Outcome 2: Seamless service delivery achieved

Public institutions will be responsive to the needs of the intended beneficiaries. Goods and services will be delivered in a timely manner to maximize the intended benefits. There will be greater preparedness to address possible risks from natural hazards, climate variability, and extreme events to lessen disruption in service delivery. The scope will be extended to include Overseas Filipinos (OFs). There will be close monitoring of political and socioeconomic situations in destination countries, and crisis contingency plans will be drawn up, as necessary, but well ahead of the breakout of the crisis.

Adopt a whole-of-government approach in delivery of key services. A whole-of-government approach means that government systems and processes work together to provide ease of access and use by citizens. To achieve this, the following initiatives will be undertaken:

- *Achieving inter-operability of government processes,* which includes converging of government databases, achieving a smart and automated government, and continuation of ongoing initiatives such as the Inter-Agency Business Process Inter-operability Program. The objective is to implement unified information and communications technology-enabled business processes and establish an information infrastructure that will allow the exchange, collaboration, and sharing of data. This will include administrative and field data of various government agencies on international migration that will be harmonized

for evidence-based policymaking and planning.

- *Becoming a "One Connected Government."* Citizens transacting with government will find it easier to locate and access government services and complete particular transactions end-to-end. Currently, applications for passports and business permits require applicants to transact with different agencies at different levels of government. The service delivery model can range from a simple co-location of agencies or one-stop shops to an integrated single-window and single-door approach. For high impact, the government will identify the basket of basic government to citizen (G2C) services, government to business (G2B) services, and government to government services. The services and agencies will be clustered according to the citizen life cycle in the case of G2C services, or the business life cycle for G2B services; and then designate the point of service.
- *Strengthening the linkages and coordination of agencies.* There are administrative arrangements in government that require horizontal and vertical linkages of different agencies and offices. These are the NEDA Board, Cabinet Clusters, the Legislative-Executive Development Advisory Council, and the National Disaster Risk Reduction Management Council, to name a few. These mechanisms will be strengthened and the linkages rationalized to improve decision-making, avoid duplication of initiatives, and maximize complementation of resources.
- *Simplifying government transactions.* Compliance-cost analysis and time-and-motion studies will be conducted for frequently-used government services to determine the cost of completing a specific government transaction. Documentary requirements, steps, processing time, and the number of signatories will be reduced to lessen the costs. The list of government transactions that will be simplified will initially include passport processes; driver's license; BIR and LGU processes, rules and procedures that are burdensome to MSMEs; land administration (land titling, mapping, and transfer of titles); and services for Overseas Filipinos (job placement, membership to entitlements such as Overseas Workers Welfare Administration, Pag-IBIG, PhilHealth, and Social Security System).
- *Implementing the National ID system* will facilitate the delivery of public services especially to marginalized groups such as indigenous peoples and the poor. The national ID system will be harmonized with the civil registry system as well.

Implement regulatory reforms. Government will continue to review, simplify, and modernize its regulations to reduce regulatory burden, making it easier and less costly to transact with government. Specific initiatives include:

- *Modernizing government regulatory processes.* Previous initiatives to improve the regulatory environment will be sustained. This will then proceed to the next phase of the reform, which will develop an overarching National Regulatory Architecture with the following components: (a) a comprehensive national regulatory policy; (b) an appropriate institutional infrastructure to manage regulations; (c) regulatory making and review process; (d) regulatory framework per priority industry; (e) a quality regulatory management system; (f) a public consultation process; (g) competency development programs for relevant government bodies; and (h) the Philippine Business Regulatory Information System.

- *Enhancing Project Repeal,* which will continue to review, and repeal or amend existing regulations including legislations that impose unnecessary burden on business firms.
- *Institutionalizing regulatory impact assessment* within government to improve the quality of regulations through a rigorous, evidence-based process in identifying and assessing policy options (regulatory or otherwise) that will deliver the greatest net benefit, taking into account all of the benefits and costs.

Improve productivity of the public sector. Productivity improvements will enhance the efficiency, economy and effectiveness of the public sector, thus be more able to provide timely and responsive government services. The initiatives under this strategy are:

- *Promoting a culture of innovation and productivity in public sector organizations.* This will be done through: (a) a national 5S campaign to raise consciousness on the fundamental concepts of orderliness, cleanliness, elimination of wastes especially waste of time and effort; (b) the One-Innovation per agency program, focusing on efficiency improvement and people-centered service delivery; and (c) institutionalization of lean management practices, office automation and knowledge productivity improvement.
- *Enhancing and sustaining government performance in the delivery of quality services* by upgrading the government quality management systems to be more client- and citizen-oriented and driving agencies towards performance excellence to boost citizen trust in government.
- *Improving adaptive capacities to minimize disruption in service* from natural and man-made hazards. Services are disrupted when natural or man-made disasters occur; therefore, government agencies including LGUs will be capacitated on climate change adaptation and disaster risk reduction, and will adopt business continuity practices.

Subsector Outcome 3: Administrative governance enhanced

Enhancements will focus on administrative and institutional systems.

Right-size the bureaucracy. A National Government Right-sizing Program will be implemented to enable the radical and transformational reform initiatives in the government. The program will require agencies to rationalize their staffing pattern with their mandate and functions, and in consideration of other agencies' mandate and functions to eliminate duplication. It will also address the growing number of contractual personnel in government.

Strengthen results-based performance management (RBPM), public financial management (PFM), and accountability systems. PFM reforms will be continued to ensure that planning, budgeting, cash management, accounting, and auditing become integrated processes. Moreover, they must be aligned with the goals and targets set in the Philippine Development Plan (PDP). This provides the environment for transparency, accountability, efficiency, and outcome-orientation of government operations.

Cascading these efforts, local capacity-building programs on service delivery mechanisms will also be geared towards strengthening LGU capacities for integrated planning, investment programming, budgeting, implementation, and M&E.

Commission on Audit (COA) rules and regulations will be reviewed and simplified.

Some rules will need to be revised in order to improve efficiency of government. For instance, the quick progression of technologies will require the procurement of new IT goods and services to keep government processes in sync with the kind of efficiency expected by the public because of improved technology.

Other initiatives include:

- *Completing the Budget and Treasury Management System and the Single Treasury Account* to provide an integrated systems environment, produce timely reports needed for decision making and audit, and generate savings in time and funds for government.
- *Shifting to the Program Expenditure Classification-based agency budget structure starting FY 2018.* This will promote the focus on outcomes and results and will be complemented by the results-based monitoring, evaluation, and reporting system of agency programs. In addition, the formulation of the Medium-Term Expenditure Programs for the largest departments and the Three-Year Rolling Infrastructure Program will strengthen strategic planning and better preparation, programming and execution of infrastructure and other investment programs and projects.
- *Intensifying Results-Based Performance Management* by refining performance measurements and strengthening the monitoring and evaluation systems of performance targets. The performance-based incentives system of government will focus on the achievement of desired sectoral, societal outcomes and results that matter to ordinary citizens. The functionality of the Strategic Performance Management System will also be reviewed.

Subsector Outcome 4: Citizenry fully-engaged and empowered

To ensure that government policies, programs and projects are responsive to the needs of the people, government will actively seek to engage citizens in all aspects of governance. To accomplish this, the following will be implemented:

Promote participatory governance

- *Establishing mechanisms for citizens to be able to submit complaints on lapses in government services, and proactively negotiate with the government for delegated power of services or programs that would be beneficial to their communities.* Volunteerism will be encouraged. There will be several platforms for inclusive volunteering to enable ordinary citizens to take an active role in information sharing, public resource management, conflict resolution, and other related processes. These will then strengthen democratic institutions for nation-building.
- *Promoting shared responsibility and accountability with civil society in achieving development goals.* This will mean transforming the role of civil society from third-party observer to partner in development. Programs that allow people to participate in the promotion of peace and order, community development, and citizen empowerment will be pursued to reach the remotest barangays. Examples of these are the *Mamamayang Ayaw Sa Anomalya, Mamamayang Ayaw Sa Ilegal na Droga* (MASA MASID) and *Kilusang Pagbabago* (KP). The MASA MASID was launched by the Department of the Interior and Local Government to involve community members in combatting the spread of illegal drugs, corruption, and criminality. It

includes information and education campaigns, reporting mechanisms, and community-based rehabilitation programs.[16] KP is an initiative that brings government services down to the ground by establishing a KP unit in each barangay to easily determine and respond to the needs of communities.[17]

- *Sustaining existing participatory governance initiatives at the local and international levels such as participatory budget partnerships, citizen participatory audit (CPA), and the Open Government Partnership (OGP) initiative* with the aim to develop the next PH-OGP Action Plans. Citizen's participatory budgeting councils at the municipal level will be created. There will be genuine representation from farmers' groups, fisherfolk, and other members of the basic and marginalized sectors, rural or urban poor organizations and community-based groups. Overseas Filipinos and their families will also be encouraged to participate in development planning. Overseas voter turnout in national elections, plebiscites, and related processes will be increased through the use of more advanced technology during elections. Comprehensive communication plans will be crafted at the local, national, and international levels on the value of right to suffrage and its impact to the diaspora.

Ensure public access to information. Comprehensive, timely, and relevant government information enables citizens to make informed decisions and then collaborate, and engage with public officials in enhancing public policies. The following initiatives will be pursued:

- *Facilitating the passage of the Freedom of Information (FOI) Bill and other FOI measures.* Executive Order No. 2, s. 2016 is only applicable to offices or agencies under the executive branch. For the public to gain access to all relevant government data, the FOI Bill must be enacted into law.
- *Sustaining existing transparency initiatives,* which are part of the good governance conditions of the PBIS such as the FDP, Transparency Seal, PhilGEPS posting, citizen's charters, and submission of SALN, and report on ageing of cash advance. The Open Data initiatives, such as the Open Data Portal, will be enhanced according to the Philippine Open Government Partnership (PH-OGP) Action Plan.
- *Providing information and communications technology (ICT) infrastructure for internet accessibility.* There will be free wifi access in all public places; eCenters will be established in communities with minimal or no access to information and government services.
- *Making information accessible offline and reader-friendly.* Citizens who do not know how to access or do not have access to internet will still have access to information about government services and data. Government plans will be disseminated in a form that is easily understandable by the public.

Institutionalize response and feedback mechanisms. The existing response and feedback mechanisms such as the Citizen's Hotline (8888) will be strengthened. The necessary follow-through protocols will be developed to ensure that response and feedback are systematically processed and tracked. Raising awareness on the existing mechanisms will be done, and as a supplement, incentivizing feedback loops will also be considered to increase engagement. Government will also ensure

[16]DILG. (September 28, 2016). *MASA MASID: Uniting communities against illegal drugs. Retrieved* from: http://www.dilg.gov.ph/news/MASA-MASID-Uniting-communities-against-illegal-drugs/NC-2016-1168

[17]Carmela Fonbuena. (December 5, 2016). New 'party' Kilusang Pagbabago formed to protect Duterte. *Rappler.com.* Retrieved from: http://www.rappler.com/newsbreak/in-depth/153167-kilusang-pagbabago-duterte-evasco

the security of citizens who reported complaints or incidents of corruption.

Implement electoral reforms. Participation in the electoral process is perhaps the most effective way for citizens to be involved in the affairs of government. Thus, political and electoral reforms to ensure zero disenfranchisement of the rights of suffrage will be prioritized. These will include voters' education, regulations on campaign finance, orientation for newly-elected officials, among others. Technologies will be tapped to make the process of voting easier and more accessible. The Commission on Human Rights will monitor and advocate for policy measures to ensure the full and meaningful participation and inclusion of marginalized sectors in electoral processes.

Subsector Outcome 5: Civil service strengthened

Improving the public's perception of government is tantamount to improving the public's trust toward civil servants. A civil servant is expected to show professionalism, and must have ethical foundation and probity. The strategies to achieve this are the following:

Promote shared public service values. The values of professionalism, excellence, integrity and non-discrimination in public service will be adhered to by all civil servants through:

- Raising awareness of civil service values and norms among all government personnel
- Strictly implementing anti-corruption laws and provision under the Anti-Red Tape Act (ARTA)
- Instilling in civil servants their role as "duty bearers" to ensure human dignity in service delivery

Improve Human Resource Management (HRM) systems and processes. Program to Institutionalize Meritocracy and Excellence in HRM (PRIME-HRM), a key government-wide initiative to improve HRM practices and systems, will continue to be implemented and further strengthened by:

- Implementing competency-based recruitment, selection, and placement systems
- Intensifying competency-based learning and development systems
- Improving career development and succession planning
- Enhancing performance management systems
- Promoting care and compassion (health, wellness, occupational safety, disaster risk reduction and management, welfare) for government employees
- Improving competency-based rewards and recognition mechanism;
- Promoting HR management best practices sharing across the bureaucracy
- Using information and communications technology (ICT) effectively in HR management (HR analytics)

Develop and invest in human resource. The government must invest in developing its workforce so that civil servants are capable, effective, and efficient. This will be done by:

- *Reactivating the Philippine Civil Service Academy* (Presidential Decree No. 1218, s. 1977) to: (a) provide leadership and direction in all training activities and programs and integrate all HR development programs for all levels and ranks; (b) pursue in a more systematic, integrated, and purposeful scale, the training programs of the academy, particularly for middle management and first-line positions; (c) draw up and conduct continuing training programs

for various employee levels in the career service; and (d) rationalize policies of scholarship programs for government employees, locally or abroad.

- *Continuing training and capability advancement of government executives and high-level civil servants* to maintain an efficient and talented bureaucracy; to promote innovation, teamwork, reform-orientation, and outcome focus among government personnel; and to break the silo mentality. This will be done through a Career Executive Service Development Program for government such as the Public Management Development Program, the Leadership Certification for Middle Managers, the Public Financial Management Competency Programs, and the like.
- *Conducting capability- and capacity-building interventions for first and second level civil servants* to hone competencies and talents.
- *Developing future reform leaders or leaders of change* to strengthen public sector capacity to transform institutions and regain people's confidence in government. This will include capability-building programs on contemporary planning methodologies for environmental scanning, scenario building, forecasting, benchmarking, foresight planning, etc. Hardware and software will also be provided to ensure comprehensive and timely information and to enable a state-of-the-art analytics.

Legislative Agenda

The following priority legislative agenda will be pursued:

Table 5.3 Legislative Agenda to Ensure People-centered, Clean, Efficient, and Effective Governance, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Subsector Outcome A: Corruption reduced	
Institutional strengthening of the OMB	Strengthen the OMB by upgrading employee skills, augmenting compensation and benefits and enhancing fiscal autonomy to curb corruption
Strengthening the powers on asset forfeiture	Strengthen the forfeiture powers of the state and establishing the Public Assets Management Corporation of the Philippines to expedite case processing
Expansion of the powers of the OMB	Strengthen the institutional capacity of the OMB by amending certain provisions of RA 6770
Subsector Outcome B: Seamless service delivery achieved	
Amendment of the Local Government Code	Amend the Local Government Code to address the challenges in local service delivery
Passage of the E-Government Act	Enable interoperability of government data and processes to increase efficiency and economy in the delivery of services.
Passage of the Unified National Identification System Act	Expand EO 420 to harmonize ID systems, and cover self-employed, the unemployed, minors and those working abroad
Amendment of the Corporation Code	Address the bottlenecks in starting an enterprise, protect minority investors, improve visitorial powers of the Securities and Exchange Commission, penalize fraud and graft and corruption, and provide mechanisms to avoid protracted litigation

LEGISLATIVE AGENDA	RATIONALE
Subsector Outcome C: Citizenry fully engaged and empowered	
Passage of the Freedom of Information Bill	Require government agencies to allow public review and copy of all official information to promote meaningful and increased participation of the people in government decision-making and public accountability
Institutionalization of citizens' participation in the budget process	Allow the public to participate in decisions regarding the local budget which promotes shared accountability
Subsector Outcome D: Administrative governance enhanced	
Passage of the Budget Reform Act	Incorporate the necessary ingredients of a modern budget system: (a) a shift from obligation-basis to cash-basis, (b) and from a two-year appropriation shelf-life to 1-year, (c) sustain a results-based approach, (d) the introduction of an Office of the Comptroller General; and (e) strengthen the Congressional power of the purse.
Passage of an Act Rightsizing the National Government to Improve Public Service Delivery	Implement transformational or radical improvements or shifts to streamline the departments or agencies' operations, rightsize the organizational structure and staffing pattern and simplify systems and processes to deliver public goods and services in the most efficient, effective and economical manner
Enactment of a law regulating campaign contributions	Implement finance reforms in campaign expenditures, sources of funds and management of such to minimize corruption and promote transparency for informed decision-making
Passage of the Party Development Act	Strengthen the political party system to develop genuine political development and democratization
Passage of a charter for the Commission on Human Rights	Provide an effective and expanded structural and functional organization to protect human rights of Filipinos, here and abroad
Amendment of the Commission on Audit charter	Repeal the Government Auditing Code of the Philippines to review and update COA provisions
Subsector Outcome E: Civil service strengthened	
Passage of the Civil Service Code	Address deeply-rooted problems besetting the public service (such as graft and corruption, red tape, violations of employee rights, and organizational ineffectiveness)
Creation of Human Resource Management Office in Local Government Units	Create a Human Resource Management Office in all LGUs to ensure adequate capacities for public service delivery at the local level
Enhanced Code of Conduct and Ethical Standards for Public Servants of 2016	Amend RA 6713 "Code of Conduct and Ethical Standards for Public Officials and Employees" to promote shared public values in civil servants

06 Pursuing Swift and Fair Administration of Justice

Chapter 6

Pursuing Swift and Fair Administration of Justice

Providing justice is a crucial element in enhancing the social fabric. It serves as a deterrent to those intending to violate the law, provides recompense and closure to the victims of those who violate the law, and gives a chance to those convicted of violating the law to face the consequence of their action and redeem themselves in society.

Providing justice is the role of government, therefore, the administration of justice must be swift and fair so that people trust government.

Under the Philippine Development Plan (PDP) 2017-2022, the traditional institutions-based method of justice administration will be shifted to a more sector-based approach. It highlights coordination among the justice sector institutions, agencies, and actors to ensure a swift and fair administration of justice. This historic shift will deliver justice in a way that is responsive to the demands of its constituents.

Assessment and Challenges

Previous reform initiatives boosted the country's ranking in the global indices. Advances made in the past six years toward improving the administration of justice and enhancing economic justice resulted in generally improved rankings in the Ease of Doing Business (EODB) Survey Index and the Global Competitiveness Index (GCI). These indices include indicators on judicial independence, efficiency of legal framework in settling disputes, efficiency of legal framework in challenging regulations, and ease of resolving insolvency. While there has been a decline in some indicators in the last three years, improvements are still generally remarkable over time. However, there are still many issues that need to be addressed.

Fragmentation of the justice system remains a challenge. Traditionally, the five pillars of the justice system – law enforcement, prosecution, courts, correction, and community –performed their respective roles independently, albeit with narrow focus on their spheres of authority. This resulted in procedural inconsistencies and lapses in policy guidance.

A key initiative, the Justice Sector Coordinating Council (JSCC) – composed of the Judiciary, Department of Justice (DOJ), and Department of the Interior and Local Government (DILG) and their relevant attached agencies – has become fully operational as a collaborative mechanism to implement the justice sector agenda. In addition, the establishment of the National Justice Information System (NJIS) also contributed in facilitating coordination among justice sector agencies. Although said accomplishments contributed in addressing fragmentation, the gains need to be further enhanced and scaled up.

Backlogs in resolving cases and delays in case development procedures continue to increase, and penal facilities are occupied way beyond capacity. Justice-related agencies have managed to speed up the disposition of complaints and cases for investigation, prosecution, and trial. The National Bureau of Investigation (NBI), for instance, reduced its backlogs to 13 percent versus the 15 percent target committed in the previous plan. Moreover, 130 Philippine Mediation Center (PMC) units were established to promote the use of Alternative Dispute Resolution (ADR). This is higher than the 125 units targeted in the previous PDP. Various jail decongestion programs (e.g., HustisYeah! project, hiring of case decongestion officers, Assisting Courts System, Continuous Trial System, Enhanced Justice on Wheels [E-JOW], use of electronic [e]Subpoena and eCourts systems, etc.) were also effective. The number of detainees released was 5,166, which is slightly higher than the target of 5,000.

However, the uneven ratio between judges and caseloads, in which cases filed outnumber the cases resolved in normal operations, contributes to the piling-up and case hearing delays. In turn, it congests penal facilities to about 500 percent of its original capacity.

Lack of public awareness, trust, and investor confidence underscores the people's low appreciation of the country's justice system. The Supreme Court continues to enjoy a positive image in fighting corruption for the past six years based on the 2016 Surveys of Enterprises on Corruption. However, due to existing protocols and structural constraints, coordination problems among justice sector agencies continue. This results in blame-passing among agencies: court dismissal of cases for lack of evidence blame prosecution; prosecutors, in turn, blame the police for poor evidence gathering; and the police blame the lack of policy guidance. As a consequence, clients see the justice process in the country as very inefficient and slow.

Limited resources of relevant agencies cause inefficiency and slow delivery of justice. Many capacity-building programs have been implemented (preparation of judicial affidavits, forensic evidence trainings, implementation of Task Force Katarungan at Kalayaan), and even the establishment of alternative courts (E-JOWS, eCourts, automated hearings, etc.) to support the swift and fair administration of justice.

Lack of human resources is evident in the uneven ratio between public attorneys and court. A public attorney-to-court ratio of 1:3 remains, despite the law (Republic Act 9406) requiring one public attorney per court (1:1). Even financially, the funding for projects for the whole justice sector is not enough to fully implement them and respond to sector efficiency concerns.

Strategic Framework

The PDP 2017-2022 aims to ensure that justice is administered fairly and swiftly. In order to address the pervasive and persisting issues of the justice system, there will be an overhaul of existing mechanisms. At the core of the methodological shift is a streamlined interdependence among the justice sector institutions, a process that recognizes their respective jurisdictions and mandates.

Targets

The country's ranking in the World Governance Indicator (WGI) and World Justice Project (WJP) will continue to be monitored. The target by 2022 is to move up the ranking in the WGI rule of law indicator to the upper half; WJP fundamental rights and criminal justice indicator to the upper 25 percentile; and WJP civil justice indicator to the upper 20 percentile. *Table 6.1* shows the results matrix at the level of subsector outcomes.

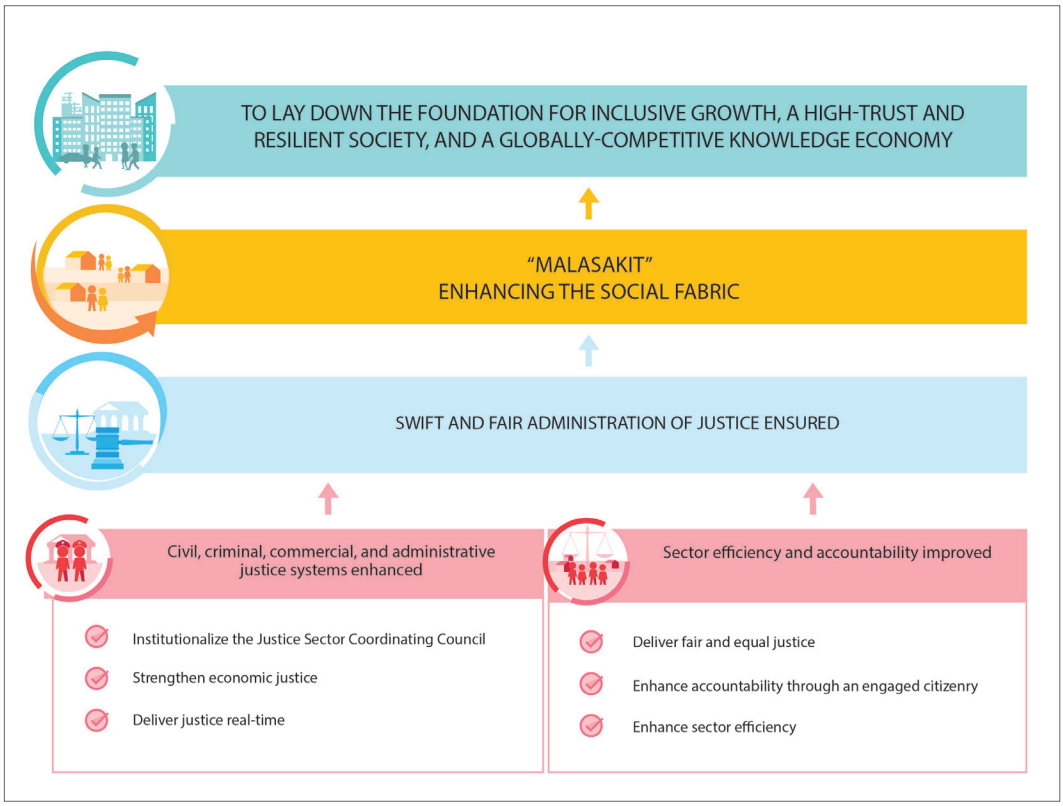
Table 6.1 Plan Targets to Pursue a Swift and Fair Administration of Justice, PDP 2017-2022

INDICATOR	BASELINE (2016)	END OF PLAN TARGET
Swift and fair administration of justice pursued		
Subsector Outcome A: Civil, criminal, commercial, and administrative justice systems enhanced		
Percentile Rank in the WGI – Rule of Law	42.31 (2015)	50.00
Percentile Rank in the (World Justice Project) WJP Rule of Law: Fundamental Rights	73.45 (2016)	77.00
Subsector Outcome B: Sector efficiency and accountability improved		
Percentile Rank in the WJP Rule of Law: Civil Justice	76.99 (2016)	81.00
Percentile Rank in the WJP Rule of Law: Criminal Justice	74.34 (2016)	78.00

Strategies

Justice is inclusive when it is swift. Enhancing systems and rationalizing interdependence among justice sector institutions or actors are essential developmental approaches to provide the timely delivery of justice. There will be harmonized efforts and seamless coordination among the different actors involved in civil, criminal, commercial and administrative justice.

Figure 6.1 Strategic Framework for Pursuing a Swift and Fair Administration of Justice



Delivery of justice will be impartial and meted out objectively, without fear or favor. In relation to this, the institutions that serve justice will be held accountable. Appropriate resources will also be provided to the justice sector actors to support the fair administration of justice.

Subsector Outcome 1: Civil, criminal, commercial, and administrative justice systems enhanced

Institutionalize the Justice Sector Coordinating Council (JSCC). A national body to monitor and facilitate coordination between and among justice sector agencies and other stakeholders will be institutionalized. Organized in 2009, the JSCC is the vehicle for institutionalizing mechanisms to ensure effective and efficient coordination among all justice sector agencies and other stakeholders. Effective coordination will facilitate the necessary planning, budgeting and investment programming systems to effectively address systemic issues and concerns in the justice sector.

At the ground level, more justice zones will be established to provide a platform for effective inter-agency coordination in the criminal system. Justice zones are areas or localities where the minimum degree of inter-agency coordinative reforms are at work. They will be subject to the selection and rating criteria formulated by JSCC. Justice zones will monitor the life spans of criminal cases and track activities and targets set by relevant actors and agencies. For the plan period, at least 14 justice zones will be established and assessed for possible replication.

A Justice Hub will also be established in selected local government unit (LGUs). This infrastructure will house courts, prosecutors, public attorneys, the police, and

a jail with classified housing for surrendered or apprehended drug offenders. The justice hub will serve as a one-stop venue for criminal justice and will aim to improve access to judicial processes.

Strengthen economic justice. To strengthen the administration of economic justice, sub-strategies to establish and enhance special courts as well as streamline land disposition rules will be undertaken:

- *Establish and enhance special courts.* To rebuild the confidence of investors, the sector will designate special courts to address specific cases and pursue contract enforcement. For instance, infrastructure courts will hear and decide all disputes arising from construction or infrastructure contracts, whether government or private-initiated and implemented. Commercial courts will handle cases related to corporate rehabilitation, insolvency, liquidation, intellectual property rights, and competition cases. Cybercrime courts will coincide with their designations as commercial courts. Lastly, environmental courts will be strengthened to keep up with the influx of pending environmental cases.

  To streamline judicial activities, special courts will be selected from the regular jurisdiction courts of the regional trial courts (RTCs). Court officials and personnel will be trained to apply the special rules adopted by the Supreme Court. The special courts will use the proven formula of the Guidelines for Litigation in Quezon City courts, the Guidelines for Continuous Trial, and other rules intended for the speedy disposition of cases. In addition, factual issues will be referred to commissioners selected from a pool of accredited professionals in relevant fields. As such, proceedings before the commissioners will not be governed by the structures of the rules in regular trials. Only legal issues will be handled by judges.

- *Streamline rules on the disposition of land 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. Assessed value threshold will be maintained in order to operate under the jurisdiction of Batas Pambansa Blg. 129[1], as amended by Republic Act 7691[2], albeit excluding delegated jurisdiction on cadastral and land registration cases. The jurisdiction of the National Commission on Indigenous Peoples (NCIP) on claims of indigenous peoples and indigenous cultural communities (ICCs) on ancestral domains will be taken into account[3].

  The Supreme Court will study the need to designate special courts on land dispute settlement.

Deliver justice real-time. Real-time justice will be operationalized through inter-agency efforts. The sector-based approach will deliver justice real-time and as needed. Sub-strategies mentioned below will help in the reduction of aging of criminal, civil, administrative and commercial cases from filing to judgment.

- *Streamline investigation and prosecutorial processes.* The DOJ will streamline

[1] Batas Pambansa Blg. 129 or "An Act Reorganizing the Judiciary, Appropriating Funds Therefor, and for other Purposes"
[2] Municipal Circuit Trial Courts, Amending for the Purpose Batas Pambansa, Blg. 129, otherwise known as The 'Judiciary Reorganization Act Of 1980'
[3] Philippine Indigenous Peoples Rights Act. The NCIP shall have jurisdiction over claims and disputes involving rights of ICC/IPs only when they arise between or among parties belonging to the same ICC/IP. (Unduran vs. Aberasturi, G.R. No. 181284, October 20, 2015),

criminal investigation, prosecution and case management processes, including those for heinous crimes and illegal drugs. The sector will push for the implementation of Republic Act 10867[4] in raising scientific investigation capabilities, and strengthening witness and whistleblower protection to increase investigative and prosecutorial effectiveness.

The Philippine National Police (PNP) will coordinate with the prosecutors even during case build-up to acquire technical guidance in securing evidence that will generate successful prosecution to conviction. The procedures under Administrative Order No. 35[5] will be followed.

- *Enhance and expand the continuous trial system*. Reducing time gaps between trial procedures, as endeavored by the implementation of Continuous Trial Guidelines, will be further enhanced through the introduction of electronic and multimodal means of providing services and communication, all to be voluntarily agreed upon by the parties. Courts will operate on a daily continuous trial basis, on top of their regular trial work in other cases.

- *Roll out automated systems in court hearings nationwide*. Key to the success of the conduct of continuous trial is the implementation of automated hearing. This platform allows the courts to issue real-time orders and processes such as subpoena, warrants of arrest, and hold departure orders. Automated hearings also expedite the issuance and termination of court-issued papers. The government will implement automated hearings in all trial courts in the National Capital Judicial Region (NCJR) by 2017, and subsequently and in phases in the rest of the courts nationwide.

- *Enhance and expand night courts*. Night courts, which are currently operational in Manila, Quezon City and Pasay courts, address the need to provide immediate judicial action after office hours. They prioritize the handling of bail applications, lifting of warrants of arrest, urgent applications for hold departure orders, plea bargain agreements, and voluntary pleas of guilt. A night court can also conduct summary hearings that require urgent action in cases involving women and children, tourists, and detainees. Each night court will have an assigned DOJ prosecutor and public attorney to facilitate such procedures.

  The Supreme Court will constitute a technical working group to study the current night courts and craft rules for enhancing the services rendered by them. The rules will be adopted within the first half of 2017; additional pilot night courts will be established by the second half of 2017.

- *Adopt special rules of procedure for the speedy disposition of multi-party cases*. To handle multi-party cases, special rules of procedure will be crafted to govern cases of this nature. The procedures will be simplified to give access to those who seek redress in mass injury cases, whether through civil or criminal proceedings. The procedures will prevent procedural missteps – as demonstrated in the 1987 MV Doña Paz sinking and Maguindanao Massacre – and facilitate due process for all parties.

- *Enhance and expand eSubpoena and eWarrant systems*. The eSubpoena

[4] Also known as "NBI Modernization Law"
[5] Also known as "Creating the Inter-agency Committee on Extra-Legal Killings, Enforced Disappearances, Torture and Other Grave Violations of the Right to Life, Liberty, and Security of Persons"

enables the courts to send subpoena via e-mail directly to the police witnesses and the units assigned. It also allows the PNP to monitor compliance and sanction police officers who fail to attend hearings. In addition, the PNP's eWarrant system allows easy search, viewing, and retrieval of information relating to a person with an outstanding warrant of arrest or a previous arrest record. The government will aim to expand the operationalization of eSubpoena and eWarrant systems to ease preliminary judicial process

- *Strengthen forfeiture and recovery of assets.* The Philippine criminal justice system will undertake measures to strengthen civil forfeiture and recovery mechanisms, especially in relation to cases of corruption, illegal drugs, human trafficking, cybercrime, economic sabotage, terrorism, and other organized transnational crimes.

- *Enhance and expand family courts.* Pursuant to Republic Act 8369 (Family Courts Act of 1997), family courts will be enhanced and expanded in the RTCs. Special training will be given to judges, court personnel and other stakeholders, including law enforcement agencies, Department of Social Welfare and Development (DSWD) personnel, and the barangays.

- *Implement measures to enhance administrative justice.* An "Agrarian Justice on Wheels" Program, similar to the "Justice on Wheels" Program of the Supreme Court, will be implemented to bring the Department of Agrarian Reform Adjudication Board (DARAB) to the location of the tillers in order to speedily resolve disputes in tenurial arrangements.

Subsector Outcome 2: Sector efficiency and accountability improved

Deliver fair and equal justice. An impartial and non-discriminatory administration of justice promotes inclusion. To achieve this, several sub-strategies will be undertaken:

- *Increase access to legal aid[6] especially of the poor and the marginalized sector.* Whereas legal aid is provided, several challenges remain such as gaps in the process and the non-availability of competent counsels.

  Plantilla positions for public attorneys and prosecutors nationwide will be increased. By the end of the plan period, the current prosecutor-to-court ratio of 1:1 will be increased to 2:1, and the public attorney-to-court ratio of 1:3 will be increased to 1:1.

  The 24-hour hotline of the public attorney's office (PAO) will be expanded to cover all regions at a more acceptable public defender-to-population ratio.

  Overseas Filipinos (OFs) will be provided with a court hotline for inquiries about the status of their cases. Facilities for remote testimony will also be established through embassies for pending court cases and utilizing automated hearings. Remote filing of small claims will also be allowed among OFs.

  Likewise, the Bureau of Jail Management and Penology (BJMP) and the Parole and Probation Administration (PPA) will continue its paralegal programs that look after the rights of detained individuals on pre- or post-conviction. The Supreme Court will continue consolidating issues regarding legal aid

[6] Legal Aid as defined in the 2013 United Nations Principles and Guidelines on Access to Legal Aid in Criminal Justice Systems, par. 8.

rule, particularly on clinical legal aid programs in law schools and agrarian legal aid.[7]

- *Strengthen victim legal protection and assistance.* Access to justice will be made more inclusive especially for persons with special needs including women, children, persons with disabilities, senior citizens, and indigenous peoples. The DOJ will strengthen victim assistance work toward developing child-sensitive and victim-centered approaches to child rescue operations, case build-up, and prosecution. Further, gender-sensitive, child-friendly, and accessible public assistance desks and interview rooms will be established, starting with prosecution offices nationwide. The PNP will sustain their women's and children's desks and other related initiatives.

  Fragmented mechanisms in existing witness protection and victim assistance programs for child witnesses and victim-survivors will be addressed by strengthening coordination between DSWD, PNP, and DOJ.

  By amending Republic Act 7309[8], DOJ will intensify the Victims Compensation Program. It will increase the compensation for victims of unjust imprisonment and violent crimes, improve access to the program, and enhance its administration.

  Likewise, the Commission on Human Rights (CHR) will intensify its efforts to facilitate access to justice by: (a) monitoring and evaluation; (b) empowering the poor and marginalized to seek response and remedies for injustice; (c) improving legal protection, awareness and aid; (d) civil society and parliamentary oversight; (e) addressing human rights violations in the justice sector; and (f) strengthening linkages between formal and informal structures.

- *Pursue strategies and reforms to decongest jails and detention facilities.* The pursuit of fair and equal justice also includes measures to decongest jails and detention facilities.

  The Task Force Katarungan at Kalayaan will be continued to eventually cover, by the end of 2017, cities outside Metro Manila where there are more than 500 inmates in a detention facility. Established in trial courts in Manila, Quezon City, and Pasay City, the Task Force tracks the progress of criminal cases of all detained persons within the courts' jurisdiction. It gathers information to support actions that should be undertaken to speed up the trials, and thus decongest the detention facilities. An implementation manual produced as a result of the Manila City Jail experience will serve as guide for the establishment of future task forces.[9]

  The DOJ will pursue bail reforms, including the review and update of the 2000 DOJ Bail Bond Guide. The reforms will rationalize and institute equitable amounts and procedures, not just in response to the jail congestion problem, but also to the socio-economic, crime prevention and law enforcement implications.

  On the other hand, BJMP will address the 550 percent congestion by fast-tracking the release process of qualified inmates.

[7] Legal Assistance Fund (LAF) and the Welfare Assistance Fund (WAF) administered by the Department of Foreign Affairs (DFA) and the Overseas Workers Welfare Administration (OWWA) respectively will ensure enough resources to extend legal protection to OFs in conflict with the law as well as those that are victims of crimes and abuses abroad.
[8] Also known as "An Act Creating a Board of Claims under the Department of Justice for Victims of Unjust Imprisonment or Detention and Victims of Violent Crimes and for other Purposes"
[9] The Implementation Manual aims to supplement A.M. No. 12-11-12 SC.

- *Pursue corrections reform strategies.* With the war on drugs and intensified campaign against criminality, the penology system—from preventive detention, to serving of prison sentence, probation, parole, executive clemency, and final release or discharge—will have to be reformed in a systemic way. This will involve the establishment of a unified corrections framework and systems that includes custody, rehabilitation and social reintegration. This will be done through the establishment of a single correction agency, or a harmonization of processes, standards, and programs across different corrections agencies.

  While such is underway, the implementation of new legislations on the modernization of the Bureau of Correction (BuCor), recognizance, amended probation law, and good conduct time allowance will be pursued.

  The BJMP's eDalaw Program helps offenders, especially those who are in inaccessible corrections and penal facilities, to communicate virtually with their families, communities and legal counsel. As part of the program, video and internet equipment will be installed in justice zones between 2017 and 2019, as well as in other penal facilities.

  Bias against job applicants with criminal records can be addressed by rallying the business sector to open their work places to these returning offenders. The alternative learning system in BuCor gives detainees educational options while serving time. The therapeutic community modality program provides counseling and guidance to inmates. The DILG has implemented barangay-based reintegration programs. These programs will help returning offenders reintegrate into society and reduce reoffenders.

  The war on drugs has spawned a different need for corrections and reintegration. For drug users who enter the criminal justice system, documentation and recordal will be done through the DILG's National Centralized Database of drug offenders which will be linked to the Criminal Justice Information Exchange (CJiX).

Enhance accountability through an engaged citizenry. Engaging the citizenry will spur trust and enhance public accountability. By launching broader information, education, and communication (IEC) campaigns, the public will better understand the justice system. This will lead to a higher degree of citizen engagement, which in turn will facilitate sectoral and agency-based accountability.

The Justice Sector will work toward instituting several modes of feedback mechanisms. This will come in the form of: (a) agency-client satisfaction surveys on frontline services to examine the impact of the Anti-Red Tape Act (ARTA), Government Quality Management System (GQMS) and other performance management and accountability mechanisms; and (b) survey on access to justice and procedures, to be included in the nationwide census commissioned by the Philippine Statistics Authority (PSA). Results of these surveys will provide a baseline of people's outlook and perception of the justice system and its corollary institutions.

Another activity is the crafting of a communication plan that will effectively convey initiatives and processes to stakeholders, especially the step-by-step process of the justice system from filing of a complaint up to the disposition of cases. It will utilize the wide reach of social media platforms, and reinforce barangay helpdesks.

Enhance sector efficiency. Central to the justice reform initiative is the establishment of a framework of coordination among judicial agencies that recognizes their specific functions and mandates. The framework will converge efforts where needed and will shift the mode of service delivery of the sector. The goal is to depart from the prevailing mindset of institution-focused performance to sector-aware performance and sector-directed targets. This will be achieved through the following:

- *Establish a central evidence unit (CEU) that will serve as the main repository of all evidence in all criminal cases.* Currently, inefficient processing of evidence has resulted in case dismissals, and which has caused frustration among public and government institutions. To address this, an integrated system will be put in place to handle electronic and physical validation and documentation of evidence coming from various agencies: from law enforcement, prosecution, and the courts. Once implemented, it will obviate the need for evidence custodians to appear in court and authenticate the evidence. Consequently, loss or corruption of evidence will be reduced, if not completely eradicated. Likewise, the lack of evidence custodians will be addressed. This system will usher in a swifter, accountable and more transparent evidence processing and presentation.

- *Adopt a uniform template for court-bound and court-issued papers to reduce time gaps to the minimum.* These templates will ensure consistency and speed up the submission and processing of required documents. Templates for criminal and civil cases will be accessible to the public online as part of the Trial Courts Automation Project. The National Prosecution Service (NPS) will prepare their own templates for institutions of criminal actions and offense checklist.

- *Identify areas for rationalization of resources for easier sector budget support.* To ensure efficient delivery of service, the following will be addressed: staffing deficiencies, rationalization of court positions, selection process[10], harmonization of human resource standards, and implementation of inter-agency programs across justice sector agencies to achieve multidisciplinary approaches in handling cases.

- *Undertake joint training programs to reorient all sector actors toward a coordinated delivery of justice real-time.* Trainings on handling small claims cases and resolution will be conducted for DARAB members. The Philippine Judicial Academy (PhilJA) and the National Competitiveness Council (NCC) will conduct trainings on handling competition cases for commercial courts and involved agencies. Joint trainings on handling cybercrime cases will be pursued through PhilJA, DOJ, NBI, and PNP for judges and personnel of the cybercrime courts, prosecutors, and law enforcement agents.

- *Efforts will be undertaken to reinforce ADR mechanisms so that courts can refer cases for ADR and help in the speedy disposition of cases.* The PMC will continue to establish mediation units all over the country.

Toward the end of the plan, the Office for Alternative Dispute Resolution (OADR), through Republic Act 9285[11], will operate as a discrete functional agency of the DOJ.

[10] Section 13-A of Presidential Decree 1513 provides that "*Whenever there is an increase in the number of court salas, there shall be a corresponding increase in the number of assistant provincial/city fiscals' position at the ratio of two fiscals to a sala*".
[11] Republic Act No. 9285 or "An Act to institutionalize the use of an Alternative Dispute Resolution System in the Philippines and to establish the Office for Alternative Dispute Resolution, and for other purposes".

It will explore methods of promoting and strengthening ADR mechanisms and practices in government. These include ADR at the level of barangay, law enforcers, prosecutors, public attorneys, administrative and regulatory agencies, among others. Further, mediation being piloted by the DOJ will be rolled out to all prosecution offices.

Aside from increasing the coverage of the *Katarungang Pambarangay*, the DILG will conduct more trainings on ADR to surpass its previous accomplishment. It will partner with the Supreme Court through the PhilJA in formulating a "trainers training module" so that it can acquire the capacity to conduct trainings nationwide and on a long-term basis for members of the *Lupong Tagapamayapa*. At least two trainings will be conducted in 2017.

As for law enforcement, the PNP will formulate its rules for mediation techniques for petty disputes. The Supreme Court, through PhilJA, will partner with DILG in training PNP personnel on mediation techniques. The collaboration intends to formulate standard rules for mediation and roll out trainings in 2017.

The ADR will explore attributes of community-based or indigenous conflict resolution processes to augment issues on access and further improve non-judicial mechanisms.

- *Information and communication technology (ICT) will be used sector-wide to help address fragmentation in the justice system and greatly enhance the information management of the whole justice sector.* The National Justice Information System (NJIS), supported by the Department of Information and Communication Technology (DICT) and funded by Congress since 2012, is a project that involves the development and setup of core agency information management systems and inter-agency exchange mechanisms among them. In a Memorandum of Agreement (MOA), the DOJ leads the project. Participating agencies are the DILG, Philippine Drug Enforcement Agency (PDEA), and Dangerous Drugs Board (DDB).

  The CJiX will be established in all justice sector agencies; each agency will then develop its ICT systems, as appropriate. 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 DOJ, DILG, and the judiciary. A key feature of the CJiX is the harmonization of criminal definitions and procedures, as well as consensus on data capture, storage and retrieval.

  The Single Carpeta System will establish inmate information management systems for the BJMP, Board of Pardons and Parole (BPP), and PPA, providing an exchange portal among them and with the Inmate Management Information System of BuCor.

  The Prosecution Case Management System of the DOJ is also undergoing enhancements for implementation in 2017. This will form part of the Law Enforcement Case Management System that will also cover the case management systems of the PNP, NBI, Bureau of Immigration (BI), PDEA, and DDB.

- *Mechanisms to utilize ICT infrastructure in the judicial process will be established.* The Enterprise Information System

Plan (EISP), a major reform program, is the judiciary's roadmap to maximize the use of ICT. Its component, the Judiciary Case Management System (JCMS), addresses the twin problem of docket congestion and delay through the automation of the clerical processing of cases from inception to promulgation of decision. A major strategy is the eCourts system, which will put into a single loop all the case management systems that exist in various court levels and allow for a seamless, electronic transmission of essential case data from lower level courts to the Supreme Court. It involves the electronic capture, storage, management, and retrieval of essential case data to aid judges and court case processors in efficiently handling the volume of cases that flood the judiciary.

In the long-term, eCourts will enable eFiling of cases and of subsequent pleadings such that the filing of both civil and criminal complaints as well as of subsequent pleadings may be carried out by simply accessing the court through its website.

- *The justice sector will work together in developing, adopting and continually updating a national crime index.* This will include all crimes and its corresponding penalties as prescribed in the Revised Penal Code and special penal laws. The index will be used for purposes of the NJIS and CJiX, crime statistics and research, implementation of the 2015 United Nation (UN) Standard Crime Classification for Statistical Purposes, as well as development of vital policies and legislations, including codification and indexation of crimes, penalties and bail bond amounts.

Legislative Agenda

Following are the key legislations that will play an important role in improving justice administration during the plan period. The set of agenda was formulated with full cognizance of the Supreme Court's fundamental role in the determination of questions of constitutionality of present and future legislations, and preservation of the independence of the judiciary.

Table 6.2 Legislative Agenda to Pursue Swift and Fair Administration of Justice, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Swift and Fair Administration of Justice	
Subsector Outcome A: Civil, Commercial, Criminal and Administrative System Enhanced	
Codifying the Philippine Criminal Laws	Codify all penal laws, update the Revised Penal Code provisions in the process, and henceforth adopt a historical compilation-type of codification akin to the U.S. Federal Statutes compilation.
Streamlining the criminal investigation process	Guide law enforcers and prosecutors using standards presently set by laws and rules and that is probable cause for the commencement of a criminal action.
Creation of new courts	Restudy the distribution of courts under BP Blg. 129, the Judiciary Reorganization Act, in relation to the population per proposed court location, historical volume of filings, and the existing dockets of the courts in that particular location. Where necessary, the existing courts may be redistributed and new courts created as needed. It is also more practical to vest the Supreme Court with the power to assign and reassign judges to address inequalities in case distribution.

LEGISLATIVE AGENDA	RATIONALE
Creation of additional prosecutor and public attorney positions	Increase the number of public prosecutors and public attorneys (who are assigned to courts for trial duty) to coincide with the creation of new courts.
Amendment of Republic Act 9165 or "An Act Instituting the Comprehensive Dangerous Drugs Act of 2002"	Amend RA 9165, particularly its very strict rules for evidence to be considered admissible in court proceedings, and for the same to be given weight.
Review of the standard of proof in determining probable cause	Increase the threshold for the investigation phase to harmonize it with the steep threshold for the trial phase.
Restorative Justice Bill	Craft a clear policy which will be visibly identified by law, providing a humane process through which remorseful offenders accept responsibility for their misconduct, particularly to their victims and to the community.
Review and streamlining of land ownership laws and remedies available, in accordance with National Land Use Act and Indigenous Peoples' Rights Act with respect to jurisdiction of NCIP	Streamline the rules to impose the mandatory consolidation of causes of action relating to the same real property, whether for possession, ownership, and/or damages.
Amendments to the Anti-Rape Law of 1997 (RA 8353)	Amend the Anti-Rape Law, pursuant to the CEDAW recommendation to capitalize "lack of consent" on the part of the victim as an element of the crime, instead of the element of "just force, threat or intimidation."
Revisions on the Local Government Code	Increase the coverage of the Katarungan Pambarangay and to mandate the composition of the Lupon Tagapamayapa, revising Section 399 of the Local Government Code which only requires for membership that one be a resident of or have work in the barangay concerned; to include the accreditation of service by lawyers on the Lupon as legal aid; and to institutionalize the concept of inhibition due to relationship and interest.
Subsector Outcome B: Sector Efficiency and Accountability Improved	
Strengthening of the Victims Compensation Program	Amend its enabling law, RA 7309 to increase compensation for victims of unjust imprisonment or detention and victims of violent crimes as well as to increase access to the program and enhance its administration.
Establishment of the Commission on Human Rights (CHR) Charter	Strengthen the CHR as a National Human Rights Institution (NHRI), compliant to the requirements of the UN Paris Principles affecting NHRIs worldwide. Among the requirements are ensuring NHRI's independence, hence full fiscal autonomy is necessary.
Establishment of a Unified Penology System	Mandate the establishment of a unified penology system.
Strengthening of the witness protection and whistleblower protection	Strengthen the Witness Protection Program to encourage more witnesses to be covered and remain therein, towards successful prosecution especially for heinous and high profile crimes; and the Whistleblower Protection program to encourage and protect whistleblowers.
Addressing dependencies on LGU support through legislation/policy and the national budget	Augment the compensation packages of the affected officials, as indicated in the General Appropriations Act. The perception of dependence on LGU support, specifically through the receipt of allowances and other material assistance, creates a level of doubt, if not distrust, in the mind of the public. Meanwhile, it must be recognized that the present salary levels of our judicial and prosecutorial officials are wanting.

07 Promoting Philippine Culture and Values

Chapter 7

Promoting Philippine Culture and Values

The Philippine Development Plan (PDP) pays close attention to the empowering nature of culture. Cultural awareness is a requirement for social inclusion and equity. Enhancing the social fabric toward a high-trust society entails building better relations for social cohesion among people. More and better interactions among members of a community, in turn, require awareness and appreciation of culture and values that drive people's attitudes and behavior. Culture is that complex whole of the people's way of life, which includes the knowledge, belief, art, law, morals, customs, values, ideas, sentiments, and any other capabilities acquired by a person as a member of society. It offers a summation and distillation of the past that provides a sound basis for living in the present and marching into the future.

Culture has several dimensions; its role in development spans and intersects with multiple sectors. As such, culture is regarded as one of the pillars for achieving inclusive, sustainable, and human-centered development. Building culture into the formulation of policies and in the design of development interventions enhances the effectiveness of programs and projects because cultural contexts are recognized. Failure to acknowledge the significance of culture in shaping our society may lead to cultural fragmentation, perceived distrust toward fellow Filipinos, parochialism, perpetuation of historical injustices, and inability to collaborate for nation building.

The priority areas of the cultural agenda are: (a) safeguarding and enshrining our cultural heritage; (b) achieving equity and inclusion in access to cultural resources and services; and (c) sustaining and enhancing cultural assets to foster creativity and innovation for socio-economic growth.

Assessment and Challenges

The Philippines is a nation of diverse cultures but this is not adequately documented and existing documentation is not easily accessible. Cultural forms and creative expressions are as diverse as the number of communities existing in the country. There are about 120-170 languages[1] spoken by 110 ethnolinguistic groups[2]. Culture also varies according to age group, gender, spirituality, and socio-economic class – even persons with disabilities have their own culture. However, a complete assessment of the country's diverse cultures, covering both the tangible and intangible, remains a challenge because data are sparse, scattered, and not regularly gathered. Efforts to create a database are constrained by lack of cultural experts to conduct research and

[1] Depending on the method of classification
[2] Based on data from the National Commission on Indigenous Peoples.

gather data in a culture-sensitive and ethical manner, and by lack of funding to sustain these activities.

Filipino identity has been undermined but there are inherent Filipino values that can be nurtured toward promoting the common good. Our colonial experience gave rise to feelings of inferiority as manifested by our culture of *hiya* or shame[3]. The pervasive undermining of what it means to be Filipino gave way for regional identities (e.g., Ilocano, Tagalog, Waray, Maranaw) to overshadow national pride. This led to a society that has become disconnected from its core culture and is characterized by fragmented identities. Values like *malasakit, bayanihan,* or *pangaddatan* that manifest *pakikipagkapwa-tao*, a way that Filipinos recognize kinship among themselves, need to be inculcated for national unity and social cohesion.

Channels of learning about our history, culture, and values have not been effective. Formal education across all levels emphasize developing literacy and skills in other fields over values education or critical teaching of history. Mainstream media failed to promote positive values in its pursuit of profit for the market-driven entertainment industry. Popular shows or movies "extol visual and aural symbols, characters, designs, replete with cultural ignorance and misinformation.[4]" As a result, the level of consciousness among Filipinos about their own culture and embedded values remains low.

The concerns of culture extend beyond the national borders. There is also a need to consider the situation of overseas Filipinos or the diaspora of Filipinos, especially second and third generation Filipinos, in destination countries. It is important to consider that these migrants are likely to be less rooted in the Filipino culture and its history even as they also need to learn about and adapt to the culture of their destination countries.

Climate change and human-induced risks to the environment require mechanisms to mitigate their impact on communities, tangible heritage, and biodiversity. Cultural and historical structures built centuries ago that continue to stand today are tangible ties of the present generation to its past, giving life to the nation's history in ways that the written text cannot provide. People need things that they can see, feel, taste, smell or hear in order to appreciate Philippine culture and history. Structures, monuments, and sites are some of the more easily recognizable icons. While the economic value of heritage sites can mostly be seen in the revenue generated from tourism, their greater value lies in what they symbolize for the local community and the key cultural and spiritual messages attached to them. Heritage structures can provide a sense of identity and belongingness, while recognition of their value can bring a sense of pride.

Heritage structures are vulnerable to the impact of climate change and human-induced disasters. Efforts to prevent their destruction need to be set in place. Unfortunately, conservation materials and the skilled labor required are expensive. Moreover, among national, regional, and local governments, development and modernity are often the priority over the conservation of important cultural assets of the country.

[3] De Guia, Katrin (2005). *Indigenous Filipino Values: A Foundation for a Culture of Non-violence*. Unpublished paper presented at the forum Towards a Culture of Non-Violence.
[4] NCCA (October 2016). *A Report on the Cultural Protection and Development Summit*. Unpublished report resulting from the Cultural Protection and Development Summit on October 5-6, 2016.

The current governance framework for cultural development has been inadequate in addressing the concerns of the sector. The government has consistently recognized the importance of culture in national development through landmark legislations[5] that created the cultural agencies with clear mandates. But conflicting provisions in certain laws compromise the implementation of cultural initiatives.[6]

The underrepresentation of marginalized sectors in local councils prejudice the quality of implementation and mainstreaming of culture in governance. Culture bearers, such as the indigenous peoples, are either denied or limited in their rightful representations in local fora despite the requirement of a mandatory representative at all levels of decision-making that affect their communities.[7]

Another issue is the conflict between property rights of private individuals or entities and the cultural rights of indigenous peoples over their ancestral domain.

Existing laws include provisions on conservation and safeguarding of cultural heritage, protection, recognition, and empowerment of diverse cultures. However, violations are not penalized. This concern revolves around the unethical and exploitative extraction of knowledge, skills, and practices from indigenous cultural communities or repositories of local knowledge.

Stakeholders across the country pointed out that there is no coordinating body with regional presence to promote cultural development and address concerns at sub-national levels. There is continued clamor for the creation of a Department of Culture to address the increasing needs for equitable access to cultural resources and services, enhanced cultural education, improved conservation and safeguarding of cultural resources, and culture-driven sustainable development.

Despite the legal mandates, agencies do not have adequate resources to implement programs for cultural development. Cultural agencies generally depend on contractual staff for the operation of the agencies due to lack of plantilla positions. Considering the magnitude of the responsibilities and the long-term nature of public services for cultural development, there is a need for a bigger pool of regular human resources.

[5] RA 3873/10087 (An Act Changing the Name of the Bureau of Public Libraries to the National Library and its Amendment), RA 7104 (An Act Creating the Commission on the Filipino Language), RA 7356 (Law Creating the National Commission for Culture and the Arts of 1992), RA 7743 (An Act Providing for the Establishment of Libraries and Barangay Reading Centers throughout the Philippines), RA 8371 (The Indigenous Peoples' Rights Act of 1997), RA 8492 (National Museum Act of 1998), RA 9470 (National Archives of the Philippines Act of 2007), RA 10086 (National Historical Commission of the Philippines Act), RA 10066 (Cultural Heritage Law of 2009), among other policy instruments that institutionalize government support for culture.

[6] For example, the Film Development Council of the Philippines had been getting its funds for rewarding producers of graded films from amusement tax revenues generated by local cinemas. This is provided for under the Implementing Rules and Regulations of RA 9167 establishing the Council. However, in 2015, the Supreme Court declared the collection of amusement tax from local cinemas illegal as it infringes on the constitutional policy of local autonomy.

[7] The following legal bases stipulate the mandatory representation of indigenous peoples in policy-making bodies and other local legislative councils: (a) Indigenous Peoples' Rights Act of 1997, RA 8371, Section 16; (b) Rules and Regulations Implementing Republic Act 8371, NCIP Administrative Order No. 1, s. 1998, Rule IV, Part 1, Section 6.; and (c) the National Guidelines for the Mandatory Representation of Indigenous Peoples in Local Legislative Councils, NCIP Administrative Order No. 1, s. 2009.

Strategic Framework

The government will increase the level of cultural awareness, inculcate values for the common good, cultivate creativity, and amplify national pride among Filipinos. These will be resonated in development plans across all levels of government. These will likewise be supported by adequate resources, capacity building for government agencies on culture-sensitivity, and increased engagement with stakeholders.

Given the cross-cutting nature of the culture agenda, the practice of volunteerism will be promoted and pursued, especially in the academe; corporate, non-government, and international volunteer service organizations; and government.

Targets

Core outcome and output indicators that will be monitored to ensure progress toward increasing the level of cultural awareness, inculcating values for the common good, cultivating creativity, and strengthening culture-sensitive governance and development are presented in *Table 7.1*.

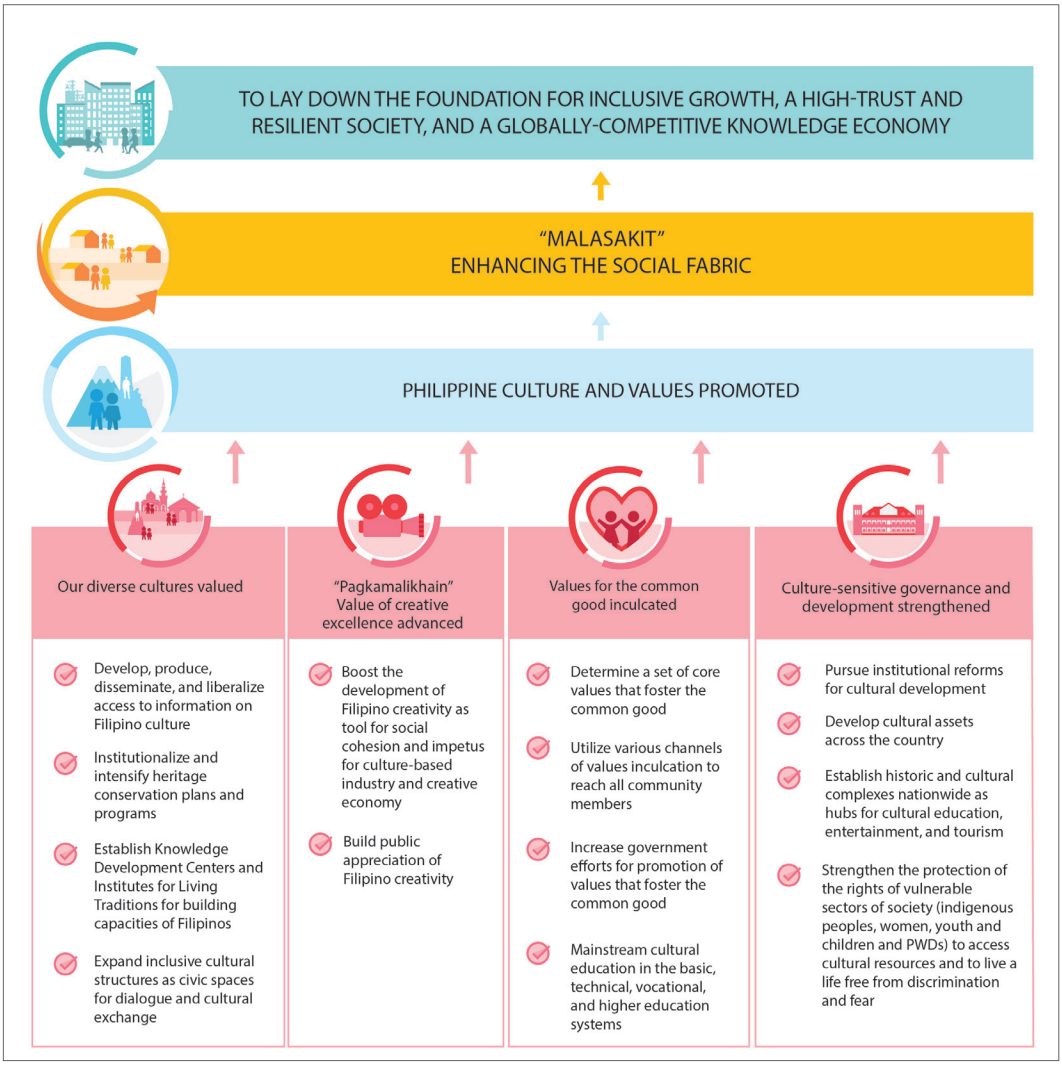
Table 7.1 Plan Targets[8] to Promote Philippine Culture and Values, 2017-2022

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Increased level of awareness of Filipino values, cultural diversity, creativity, and culture-sensitivity			tbd
Enhanced tolerance and respect for others			tbd
Inclusion of culture in all development plans in key growth areas according to the National Spatial Strategy			tbd
Heightened pride of place and pride of being Filipino			tbd
Reached the target number of beneficiaries (individuals, groups, organizations, communities) who were provided support			tbd

[8] There are no current baselines and targets for the indicators because data remain to be gathered and established through a national survey. These will be made available on the plan's midterm update in 2019. A more detailed set of indicators can be found in the PDP's accompanying Results Matrix.

Strategies

Figure 7.1 Strategic Framework to Promote Philippine Culture and Values, 2017-2022



Subsector Outcome 1: Our diverse cultures valued

Only with strengthened awareness of the different cultures in the country can Filipinos have the capability to integrate their cultural heritage into their lives and contribute to national development. Different segments of society must have a general consciousness that they belong to a national community. They should be aware of their heritage and be determined to ensure its preservation. It necessitates the establishment of mechanisms for recognition such as historical markers and a database of tangible and intangible cultural assets. Valuing cultural diversity therefore requires its recognition, protection, safeguarding, and promotion. To achieve this, the following strategies will be implemented:

Develop, produce, disseminate, and open access to information about Filipino culture. Under this PDP, learning materials will be developed in order to raise awareness about the country's cultural

diversity. Various agencies will collaborate to disseminate these information materials to their respective stakeholders, including overseas Filipinos (OFs) who may be reached through the Philippine embassies abroad, or anybody interested in learning about the country's diverse cultures.

Institutionalize and intensify heritage conservation plans and programs. Protection of tangible heritage will be undertaken through comprehensive conservation plans, while recognizing that it is a shared responsibility of every Filipino.

Establish Knowledge Development Centers (KDCs) and Schools for Living Traditions (SLTs) for building the capacities of Filipinos. Knowledge Development Centers will be established to document, conserve, and protect tangible and intangible cultural heritage for posterity, as well as to enrich the people's knowledge and sense of ownership of various elements of Filipino culture. Schools for Living Traditions (SLTs) have been the safeguards of intangible heritage since 1995 because they ensured its transmission to the next generations of indigenous peoples and the Bangsamoro. These schools will thus be expanded to educate more people who wish to learn skills from the various culture bearers.

Expand inclusive cultural structures as civic spaces for dialogue and cultural exchange. Cultural infrastructure and facilities will be used as venues for fostering social cohesion and valuing cultural diversity. Cultural structures, such as museums, cultural centers, archives, libraries, art galleries and other cultural facilities, will be made more inclusive in order to allow for dialogue and cultural exchange. The use of embassies for the regular engagement of Filipinos abroad in cultural initiatives will be institutionalized. Such facilities allow for the continuity of the intangible cultural heritage, practices as well as other creative expressions.

Subsector Outcome 2: Values for the common good inculcated

Instilling values for the common good into the consciousness of all citizens will provide the needed positive and transformative change that will eventually lead to a high-trust society.

Determine a set of core values that foster the common good. While there will always be conflicts of interests and differences in beliefs and principles, there are values that are common to Filipinos and that are important for social cohesion and inclusive development. Values that are embraced by various Filipino communities will be identified. Among them are discipline, persistence, and grit, as well as having a positive disposition for which Filipinos are known. Other values that many Filipinos share are *Pagkamalikhain* (creativity), as evidenced by Filipino ingenuity, and *Malasakit* (roughly translated to compassion or empathy), as evidenced by the readiness and willingness to help, especially in times of calamities. Establishing the core values, however, does not preclude the freedom of different cultural communities from defining their own values.

Because there is no existing baseline to serve as a starting point, there is a need to examine how social values are tackled in all institutions, such as schools, government, media, among others.

Utilize various channels of values inculcation to reach all community members. Once established, families, local communities, civil society organizations, workplaces, formal and informal education systems, and media platforms will be tapped to ultimately inculcate the core values in the general population.

Increase government efforts for promoting values that foster the common good. To reach the population, the production of information materials on the identified set of values will be intensified. Projects, activities, and programs that promote these Filipino values will also be created, implemented, integrated, and reviewed across all levels of government.

Mainstream cultural education in the basic, technical, vocational, and higher education systems. Promotion of these core values can take advantage of the reform of the basic education system through the K to 12 curriculum, particularly as regards the development of "21st century skills.[9]" The desired outcome of the reform is to ensure that students are equipped with not only functional literacy and skills but also with the values necessary to become productive members of society. In particular, the reform identified the need to instill ethics among students –particularly focusing on virtuous behavior.

In addition, other means and channels for values formation will be utilized through the collaboration of several agencies in order to cover all stages of human development.

Subsector Outcome 3: Pagkamalikhain or creative excellence advanced

A culture of creative excellence needs to permeate various levels of public consciousness as the foundation of a globally-competitive knowledge economy.

Boost the development of Filipino creativity as a tool for cohesion and impetus for a culture-based industry and creative economy. Learners in the academe need to appreciate at a young age the importance of inventiveness and creativity. Inter-disciplinary collaboration among public and private sectors will boost innovation in various areas.

The country should also nurture certain mindsets: an entrepreneurial spirit that rewards industry and smart work, giving primacy to design in reinforcing cultural and national identity, generating solutions through innovation, and valuing intellectual property. It is also imperative to foster a culture that values arts, science, technology, and innovation. *See also Chapter 14.*

Advancing the value of creative excellence will be integrated with the inculcation of values that foster the common good and appreciation of diverse cultures, so that creativity is developed together with core values. This will then result in the constructive pursuit of solutions to social ills.

Build appreciation of Filipino creativity. To realize the potentials of the creative process, the agents of creativity will be empowered and supported by an institution that will encourage the production of creative works, invest in human development of its stakeholders, support their products, and develop the industry *(see also Chapter 9)*. It will provide due recognition to the contribution of the culture sector and other stakeholders concerned with heritage and creativity, to the social and economic life of the country.

Subsector Outcome 4: Culture-sensitive governance and development strengthened

The government has an important role to play in a nation's cultural development. It can provide the needed resources to ensure the preservation and development

[9] Department of Education. December 2013. *K to 12 Gabay Pangkurikulum: Edukasyon sa Pagpapakatao*. Accessed on January 17, 2017. Retrieved from: http://www.deped.gov.ph/sites/default/files/Edukasyon%20sa%20Pagpapakatao%20Curriculum %20Guide%20 Grade%201-10.pdf

of Philippine culture, and the exploration and understanding of Philippine history. In addition, local governments can support community initiatives to include culture in their local development plans.

Pursue institutional reforms for cultural development. A coordinating body that will streamline services and activities must be established. This will enable a systematic launch of cultural initiatives nationwide. Mechanisms will be built to improve the capacity of the culture sector in the fields of governance and legislation. This means improving infrastructure support for cultural agencies and strengthening the implementation of relevant policies.

Existing legislations need to be reviewed to assess whether the measures are still appropriate given the technological, political and social developments, and whether established mechanisms remain relevant in addressing issues such as those brought by climate change or human-induced disasters. Penalty clauses in applicable and relevant laws and regulations will also be based on a solid framework for cultural development.

Culture-sensitivity will be enhanced in government bureaucracies so that policymakers will not only focus on deriving economic benefits from cultural assets, but also recognize the intangible value of the creative process that pushes its citizens to imagine, create, and innovate.

Establish historic and cultural complexes nationwide as hubs for cultural education, entertainment, and tourism. This will help in showcasing the best of the Philippines for cultural tourism, which can contribute to economic growth.

Develop cultural assets across the country. Considering the geographic situation of the country, development of cultural assets is necessary to broaden access to cultural resources and activities.

Strengthen the protection of the rights of vulnerable sectors (indigenous peoples, women, youth and children, and PWDs) to access cultural resources and live a life free from discrimination and fear. Citizens must appreciate the principles behind cultural protection and become proactive defenders of culture themselves. Civil society, the academe, media, and other agencies of the culture sector[10] can contribute to the efforts, but government needs to create the enabling environment for conserving and enriching the collective memory of the nation.

There is also a need to engage and seek the participation of indigenous cultural communities in the formulation of policies and measures that concern their communities and their environment. Indigenous knowledge and practices provide valuable insights and tools for ensuring environmental sustainability. This is an intangible heritage inextricable from the country's biodiversity heritage. *See also Chapter 5.*

[10] UNESCO broadly defines the "culture sector" as a demarcated policy domain which is mainly concerned with heritage and creativity. It is comprised of individuals, organizations, and institutions that are responsible for the transmission and renewal of the diverse manifestations of human intellectual and artistic creativity, including the arts and cultural expressions: "Culture as a sector of activity includes, but not exclusively, cultural workers, artists and other creative professionals; commercial (for-profit) businesses; not-for-profit firms in the arts and culture; public cultural institutions, such as museums and galleries, heritage sites, libraries etc.; education and training institutions in the arts; government agencies and ministries responsible for arts and cultural affairs; NGOs and civil society involved in cultural activity."

Legislative Agenda

Table 7.2 Legislative Agenda to Promote Philippine Culture and Values, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Modernization Act for the National Library of the Philippines	Establish the charter of the National Library of the Philippines to promote full intellectual and cultural development of the Filipino. It will also standardize public libraries and ensure their funding.
National Museum of the Philippines Act	Strengthen the National Museum.
UNESCO Declaration on Cultural Diversity	Ratify the declaration.
Commemoration of the Indigenous Peoples' Rights Act	Declare a national, non-working holiday for the recognition and promotion of the rights of indigenous peoples.
Strengthening the Conservation and Protection of the National Cultural Heritage	Amend the Heritage Law (RA 10066). Update its provisions on jurisdictions.
Film Industry Development Act	Include film appreciation, construct local cinematheques, replace the Metro Manila Film Festival with a national film festival in December, encourage the production of films by providing incentives.
An Act Providing for the Welfare Protection of Artists and Cultural Workers	Protect and promote the rights of artists and cultural workers (e.g., conservationists) to be considered as persons actually engaged in cultural work and to benefit from all legal, social and economic advantages pertaining to the status of workers.
Establishment of the Department of Culture	Reorganize the National Commission on Culture and the Arts into the Department of Culture and the Arts, define its power and functions. Strengthen the National Endowment for Culture and Arts.
Establishment of Kawanihan ng Pagsasalin/ Bureau of Translation	Establish an institutional mechanism for accreditation and professionalization of translators in Filipino and other Philippine languages
Establishment of the Kandungan ng mga Wika at Kultura in Rogongon, Iligan City	Establish a cultural complex comprising of training centers, languages laboratories, language park, and balay-wika (languages museums)
Establishment of Local Culture and Arts Councils and Allocate Funding similar to the Gender and Development (GAD) Fund or Special Education Fund	Establish offices for culture and arts in LGUs, with a mandate to protect and promote local cultural heritage and arts.
Establishment of an Institute for Cultural Heritage Conservation of the Philippines	In line with the implementation of the Cultural Heritage Law (RA 10066), there is a need to come up with an institute that will offer trainings and workshops on cultural heritage education through formal, alternative and informal education. This will emphasize the protection, conservation, preservation, and safeguarding of cultural heritage and properties. It is envisioned to be an institute on Philippine conservation that offers education programs on methods and approaches that adhere to accepted international standards of conservation but adaptable to Philippine setting.
Public Art to Infrastructure	Allocate a certain percentage of the budget for any building to public art as part of infrastructure. An example is a space for art installations in infrastructure projects.

PART III

INEQUALITY-REDUCING TRANSFORMATION ("PAGBABAGO")

08 Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries

Chapter 8

Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries

The agriculture, fisheries, and forestry (AFF) sector is pivotal in generating employment for about a third of the country's labor force, thereby reducing poverty and inequality for three-fourths of the poor who are in the rural areas. AFF is also key to providing raw materials to the manufacturing and service sectors, resulting in forward linkages in terms of higher-paying and more stable job opportunities. Intensifying efforts to revitalize the AFF and harnessing its growth potentials are needed to promote more inclusive development. Given the sector's links to agribusiness, interventions and investments will be channeled to expand existing opportunities and develop new ones, thus inducing greater participation of small farmers and fisherfolk.

Assessment and Challenges

The performance of AFF in the past three years indicates that revitalization must be strengthened. The contribution of AFF to the country's gross domestic product (GDP) continued to decline. It recorded an annual average GDP share of 10 percent from 2013 to 2015. This declining contribution is a stylized fact as economies progress and undergo a structural transformation. However, such transformation has been slow, and the growth of AFF weak. Its annual average gross value added (GVA) grew by only 1.0 percent from 2013 to 2015, and contracted by 1.3 percent in the first three quarters of 2016. Central Luzon, CALABARZON, Northern Mindanao, Central Visayas, and SOCCSKSARGEN have been the regions with better-than-average performance.

The modest output expansion accompanied by a drop in employment in AFF translated to an average annual labor productivity growth of 2.9 percent in the last three years. Compared with the industry and services sectors, AFF labor productivity has been the lowest.

Table 8.1 GVA Growth Targets under the Philippine Development Plan (PDP) 2011-2016 versus Accomplishments, in percent

SUBSECTOR	PDP 2011-2016 TARGET				ACCOMPLISHMENT				
	2013	2014	2015	2016	2013	2014	2015	1Q-3Q 2016	AVERAGE 2013-2015
Crops	4.5-5.5	4.0-5.0	4.0-5.0	4.0-5.0	0.1	2.4	-1.8	-3.5	0.2
Livestock	1.2-2.2	1.2-2.5	1.5-3.0	1.6-3.5	1.8	1.0	3.8	5.0	2.2
Poultry	4.2-5.2	4.2-5.2	4.2-5.2	4.2-5.2	4.2	0.4	5.7	1.4	3.4
Fisheries	1.5-3.0	1.5-2.5	2.3-3.0	2.8-3.5	0.7	-0.2	-1.8	-4.5	-0.4

Source of basic data: Philippine Statistics Authority

Crops subsector – the primary driver of AFF – pulled down the overall growth. On the average, the GVA of crops grew only by 0.2 percent during the period 2013 - 2015 *(see Table 8.1)*. Its poor performance was due to: (a) typhoons and El Niño that adversely affected rice and corn production; (b) coconut scale infestation in CALABARZON; and (c) limited adoption of high-yielding varieties of commodities. On the other hand, production of high-value commodities such as banana, pineapple, and mango increased and gained better prices due to high market demand and improved crop management practices.

Fisheries maintained a weak performance. GVA of fisheries continued to slump, which can be attributed to reduced fishing activities due to typhoons and extreme weather condition and the implementation of the closed season policy in several areas. Closed season is part of the government's effort to allow the recovery of fish population from overexploitation. Further affecting fisheries performance is the degraded fishery resources. To avert this, fishery management has shifted to protection and conservation through an ecosystems approach to fisheries management.

Livestock and poultry buffered the sluggish growth of crops and fisheries. The minimal effect of adverse weather coupled with favorable market conditions translated into the achievement of the PDP GVA targets in 2013 and even exceeding those of 2015.

Forestry sub-sector growth significantly declined. Forestry GVA dipped from 36.7 percent in 2013 to 4.9 percent in 2014 and further slipped to -26.7 percent in 2015. This is attributed to the issuance of Executive Order No. 23, s. 2011, which declared a moratorium on the cutting and harvesting of timber in natural and residual forests. However, EO 23, s. 2011 should be seen as an investment in ensuring the protection of forests and in preserving the various ecological services they provide to the people.

Despite the seemingly greater attention afforded to the agriculture sector in the past years, sustaining growth has continued to be elusive. This is due to the continued failure to address the challenges that have lingered over time and weakness to overcome the emerging ones.

Limited diversification prevented AFF from harnessing the potentials of the growing local and international markets. Over the years, area harvested for crops in the country has been highly concentrated to three dominant crops: rice, corn, and coconut. In contrast, the combined area harvested for high-value crops with greater prospects for market expansion (e.g., banana, sugarcane, and rubber) is much smaller than the combined area harvested of

the three dominant crops. This limited crop production diversification suggests a failure in taking advantage of the growing export market.

Long-standing challenges in AFF continue to hamper productivity. This includes limited access to credit and agricultural insurance, and poor provision by the government of productivity-enhancing support services, infrastructure and facilities:

- *Limited access to credit and insurance.* Insufficient working capital inhibits farmers and fisherfolk from using the appropriate type of inputs, farm equipment, and facilities that will expand production and spur entrepreneurial activities in the rural economy. In 2015, about 39 percent of small farmers and fisherfolk borrowers did not access formal credit[1] due to: (a) lack of technical capacity to develop viable project proposals; (b) lack of or poor credit track record; (c) lack of acceptable collateral; and (d) limited information about available loan products. On the supply side, banks have low compliance to the loan quotas (15% agricultural, 10% agrarian) of the Agri-Agra Law or RA 10000. In 2015, agricultural loans comprised 14 percent and agrarian loans only represented 1.1 percent of the banks' total loanable funds.

  Climate and disaster-related risks also amplify the need to address design and implementation issues in the country's agricultural insurance programs. An initial assessment of the agricultural insurance programs of the Philippine Crop Insurance Corporation (PCIC) recognized that the features of PCIC's agricultural insurance products have been mainly intended to safeguard lenders from loan default. Notwithstanding, it is equally important to protect farmers and fisherfolk from production shocks brought about by calamities.[2] Legal constraints that limit capitalization and human resources hinder PCIC's capability to insure more farmers and fisherfolk.

- *Low farm mechanization and inadequate postharvest facilities.* Despite the displacement of labor with greater mechanization, farm machinery and postharvest equipment and facilities are important to increase quantity and quality of produce, reduce losses, and lower labor costs.

  Farm mechanization in the country improved considerably from 0.52 horsepower per hectare (hp/ha) in the 1990s to 1.23 hp/ha for all crops and 2.31 hp/ha for rice and corn in 2011.[3] However, this improvement continues to lag behind the mechanization level in other Asian countries such as Japan, South Korea, Thailand, and People's Republic of China; but somehow at par with Vietnam, Pakistan, and India.[4]

  Studies of the Philippine Center for Postharvest Development and Mechanization and the University of the Philippines Los Baños show that inadequate postharvest facilities result in relatively high losses, reaching up to 16.5 percent of production in rice, 7.8

[1] Based on the 2014 Small Farmers and Fisherfolk Indebtedness Survey conducted by the Agricultural Credit Policy Center. Among small farmers and fisherfolk respondents, about 61 percent availed of loans from formal sources.
[2] Reyes, C. M., Mina, C. D., Gloria, A. B., & Mercado, S. J. P. 2015. *Review of Design and Implementation of the Agricultural Insurance Programs of the Philippine Crop Insurance Corporation* (2015-07). Makati: Philippine Institute for Development Studies.
[3] Dela Cruz, R. S. M. and S. Bobier. 2013. *Determination of the Available Power for Utilization in Agricultural Mechanization*. Nueva Ecija: Philippine Center for Postharvest Development and Mechanization
[4] Department of Agriculture. May 21, 2013. PHL Farm Mechanization is 1.23 hp/ha. *Official Gazette of the Republic of the Philippines.* Press release

percent in corn, 15.5 percent in banana, 30.4 percent in mango and 45.1 percent in onion. For the fisheries sector, post-harvest losses range from 20 to 40 percent of the total outputs based on the Bureau of Fisheries and Aquatic Resources data.

- *Inadequate irrigation.* As of 2015, only 1.7 million hectares or 57 percent of the 3.0 million hectare potential irrigable area has been irrigated. Irrigation development has been slow due to the long and tedious process of designing and constructing large-scale irrigation systems. On the other hand, the construction of small-scale irrigation systems has been limited and many of the existing irrigation systems need rehabilitation or restoration to improve their efficiency.

- *Scant support for research and development (R&D).* Despite the significance of R&D in developing technologies and identifying good farm and fishery management practices, the share of R&D programs remains low in the total budget of the Department of Agriculture (DA) and Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development. In 2015, the aggregate budget was at ₱3.8 billion or only 0.28 percent of the AFF GVA (in current prices), which is lower compared to the one percent level recommended for developing countries.[5] The capacity for R&D is also adversely affected by the limited number of permanent positions for scientists and researchers in agriculture, thus leading to the contractualization of research jobs.

- *Weak extension service.* Weak extension service slows down the diffusion and adoption of farm practices and technologies that are applicable to a specific area and responsive to the needs of farmers and fisherfolk. Inefficiencies in the delivery of extension services can be attributed to inadequate operational funds and lack of human resources of local government units (LGUs). Almost half of the agricultural extension workers are also ageing, ranging from 43 to 64 years old, based on the survey conducted by the Agricultural Training Institute.

- *The agrarian reform program remains incomplete.* After decades of implementing the Comprehensive Agrarian Reform Program (CARP), land acquisition and distribution (LAD) remains incomplete. The slow pace of LAD has been due to: (a) landowner's resistance, particularly in the compulsory acquisition of private agriculture lands; (b) tedious processes and delays; (c) variability in the LAD targets; and (d) pending harmonization of rules to conform to Supreme Court decisions regarding the acquisition of lands under Operation Land Transfer. Moreover, the subdivision of the collective Certificate of Land Ownership Award (CLOA) was hampered by problems in identifying agrarian reform beneficiaries (ARB) and locating the landholdings, procedural delays in updating the names listed in the collective CLOAs, and tedious validation process to determine whether collective CLOAs are within the alienable portion of the public domain.

[5] Balisacan, A. M., & Sebastian, L. S. (2006). *Securing Rice, Reducing Poverty: Challenges and Policy Directions* (1st ed.). SEARCA, PhilRice, and DA-BAR.

Despite the enduring efforts to redistribute lands, there is insufficient data on the conditions of ARBs, and if lands remain in their hands. From the business standpoint, the unfinished land reform program has created uncertainties and discouraged investments in agricultural production and agribusiness.[6] In addition, the limits imposed to ownership of agricultural land under CARP have been recognized to affect the land market.

- *Ageing farmers and fisherfolk.* The average age of farm operators of palay, corn, bangus and tilapia ranges from 48 to 55 years old.[7] While the sector's workforce gets older, the younger population finds more attractive employment opportunities outside the sector.

Limited connectivity between production areas and markets, and poor compliance with product standards resulted in low competitiveness of AFF products. An inefficient transport and logistics system makes AFF products less competitive in the market due to: (a) increase of travel time from the production area to markets; (b) reduction of quality during transport; and (c) increase of transport and handling costs. In 2015, only 6,549 kilometers of farm-to-market roads (FMR) were constructed out of the 13,999 km target of DA from 2011 to 2017. Meanwhile, owing to poor compliance with quality standards along the supply chain, the Philippines experienced agri-food rejections at the border of the importing countries (e.g., European Union, United States, Japan and Australia). This was due to the presence of mycotoxins, additives, bacteria and other contaminants; labelling; and adulteration of or missing documentary requirements.

Weak institutions also fail to stimulate sector growth. Overlapping functions across several government agencies led to the inefficient delivery of support services and hampered agrarian reform implementation. Without close coordination of efforts, limited public investments will not be strategically directed to areas with greater needs and potentials for development, thus resulting in duplication of activities. Premature and illegal conversion of prime agricultural lands, irrigated and irrigable lands also continue, despite safeguards against land conversion (e.g., Agricultural and Fisheries Modernization Act, CARP, and Local Government Code). If existing laws are not strictly implemented, premature and illegal conversion may persist, and this will compromise food security and agrarian reform objectives.

Lifting of the quantitative restrictions (QR) on rice poses risks to AFF stakeholders who remain uncompetitive. The expiration of the QR on rice on June 30, 2017 will pose disadvantages to less competitive producers, particularly small farmers. However, it can help lower the price of rice, and this will benefit the general public including farmers who are net consumers of rice. The share of rice in the total food expenditure of the lowest quintile (poorest 20%) of Filipino households is quite substantial at 30.6 percent based on the 2012 Family Income and Expenditure Survey.

Growing population threatens existing agricultural land use. Growth in population will continue to pose pressure on the use of natural resources to respond to increases in the demand for AFF products. The increasing demand for housing, likewise, has already entailed huge conversion of existing agricultural lands to settlement lands. Competing use of these resources,

[6] Based on the agribusiness policy note of the Joint Foreign Chambers of Commerce of the Philippines entitled "Bold Inclusive Reforms for Agribusiness for the Next Decade." Retrieved from http://www.investphilippines.info/arangkada/wp-content/uploads/2015/09/Policy-Note-Agribusiness-FINAL.pdf (accessed January 23, 2017)

[7] Based on the cost and returns surveys of the Philippine Statistics Authority for palay and corn production in 2013, tilapia production in June 2010-May 2011, and milkfish production in 2006

land and water in particular, suggests the need to strike a balance in development objectives such as addressing housing needs, agro-industrialization and food security objectives, among others.

Compounding these issues is the sector's vulnerability to climate and disaster risks. The impact of climate change and disasters has overturned gains in the sector to the detriment of small farmers and fisherfolk. From 2011 to 2015, production losses and damage to infrastructure amounted to ₱163.6 billion in agriculture based on the assessment of DA.

Strategic Framework

In the medium-term, AFF will seek to: (a) expand economic opportunities for those who are currently engaged in producing AFF products; and (b) increase access to economic opportunities for small farmers and fisherfolk who are typically subsistence producers and have limited market participation. These will be beneficial to existing producers and marginalized farmers and fisherfolk, including women, elderly and indigenous peoples.

Targets

Over the plan period, the main target is to substantially increase GVA in AFF from the baseline value of 0.1 percent to within 2.5 to 3.5 percent in 2017, and maintain that growth rate over the next five years. A reversal of the negative growth of the value of fisheries production and exports is likewise aimed for. *Table 8.2* presents the key indicators.

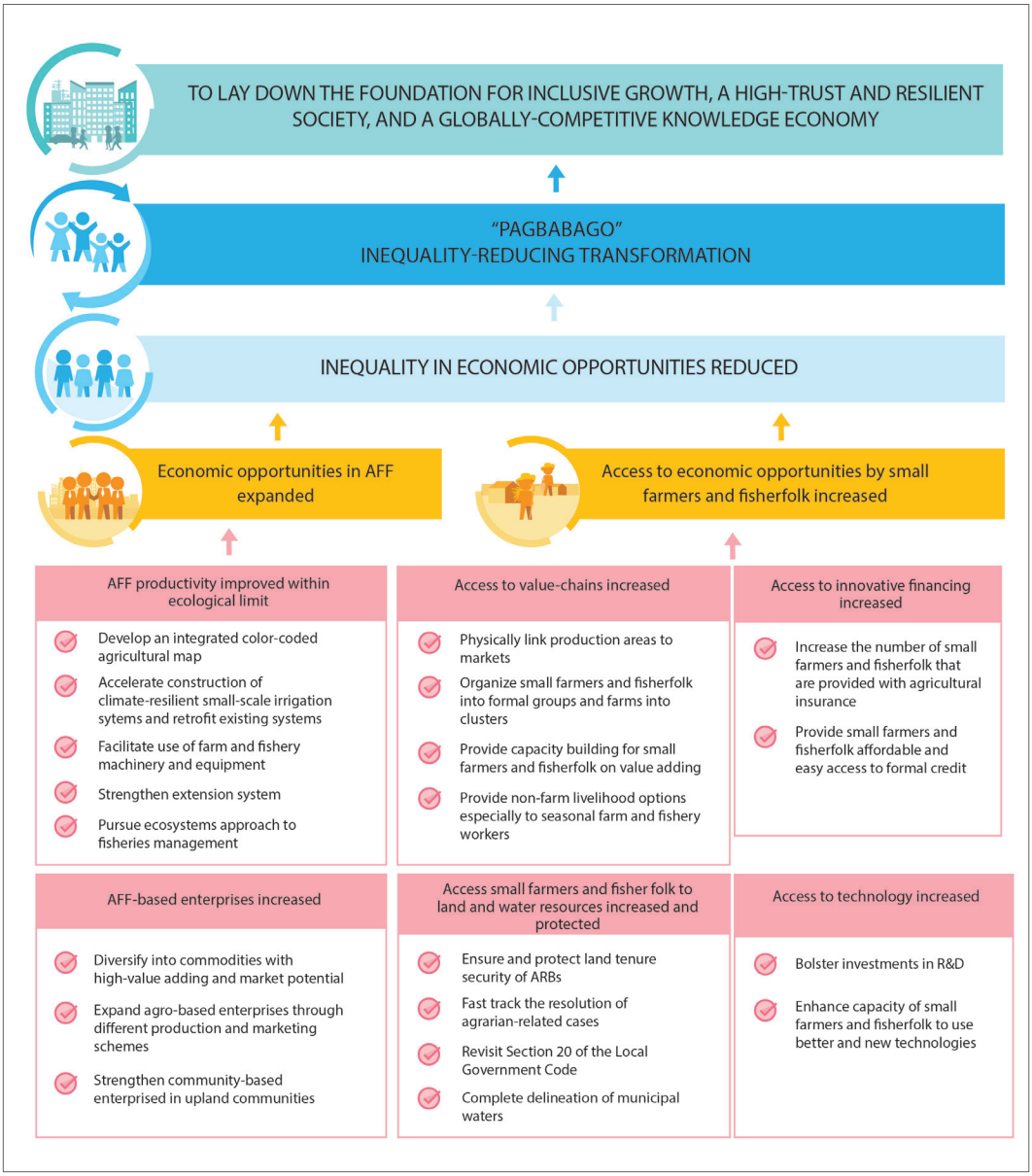
Table 8.2 Plan Targets to Expand Economic Opportunities in Agriculture, Fisheries, and Forestry, 2017-2022

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	2022
Sector Outcome A: Economic Opportunities in Agriculture, Forestry and Fisheries Expanded			
Growth of GVA in Agriculture, Forestry and Fisheries Increased (year-on-year at constant 2000 prices, in percent)	2015	0.1%	2.5%-3.5%
a. Crops	2015	-1.8%	2.0%-3.0%
b. Livestock	2015	3.8%	3.0%-4.0%
c. Poultry	2015	5.7%	3.0%-4.0%
d. Forestry	2015	-26.7%	2.0%-3.0%
Growth in Value of Production of Fisheries Increased (year-on-year at constant 2000 prices, in percent)			
a. Commercial	2015	-3.3%	2.5%
b. Municipal	2015	-2.2%	1.0%
c. Aquaculture	2015	0.8%	5.0%
Growth in the Value of Agriculture and Fishery Exports Increased (year-on-year, FOB value, in percent)	2015	-21.6%	9.0%
Sector Outcome B: Access to Economic Opportunities by Small Farmers and Fisherfolk Increased			
Growth in Labor Productivity of Farmers and Fisherfolk Increased (year-on-year at constant 2000 prices, in percent)	2015	4.6%	5.0-6.0%

Strategies

Strategies to expand economic opportunities in AFF fall under *Pagbabago* or reducing inequality. The goal is to improve productivity and increase access.

Figure 8.1 Strategic Framework to Expand Economic Opportunities in Agriculture, Fisheries, and Forestry, 2017-2022



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

Sector Outcome A: Economic opportunities in AFF expanded

To expand economic opportunities for existing AFF producers: (a) productivity must be improved sustainably; and (b) the number and capacity of AFF-based enterprises must increase. Productivity enhancements will be attained within the ecological limit by striking a balance between utilization and regeneration of land and water resources to ensure sustained benefits. New AFF-based enterprises will be developed, while existing ones will be encouraged to increase production and to go beyond producing merely raw materials through increased value-adding of products with higher market value. The resulting rise in potential incomes will attract more people, including the youth, to venture into the sector.

With the lifting of quantitative restrictions on rice, the government will pay close attention to rice farmers and help them be more competitive and provide them with more and diversified livelihood and income opportunities.

Subsector Outcome 1: AFF productivity within ecological limit improved

Develop an integrated color-coded agricultural map to identify the comparative advantage of specific areas. It will contain updated sub-national information on soil characteristics, water availability, climatic types, topography, and socioeconomic conditions. The map will inform production decisions about suitable crops and agricultural activities. It will also guide the identification and prioritization of programs, projects, and activities in the sector.

Accelerate construction of disaster- and climate-resilient, small-scale irrigation systems and retrofit existing ones. Irrigation systems must be disaster- and climate-resilient and compliant with construction standards. Priority will be given to small and communal irrigation systems, especially water harvesting technologies. Large-scale irrigation systems will be constructed if deemed hydrologically appropriate (i.e., water source is available and stable) and economically feasible.

The construction of these irrigation systems will be accelerated in areas with high irrigation development potential such as Central Luzon, Cagayan Valley (Region 2), SOCCSKSARGEN, Autonomous Region in Muslim Mindanao (ARMM), and Bicol Region. Periodic rehabilitation of damaged systems and restoration of non-functional ones may involve retrofitting to ensure disaster and climate resiliency.

Effective and efficient water saving and management technologies will be promoted to cushion the impact of El Niño. Moreover, an integrated watershed management approach will be implemented to sustain soil productivity and water efficiency, particularly in the 143 critical watersheds in the country.

Facilitate the use of appropriate farm and fishery machinery and equipment. Funding will be provided for the full implementation of the Agricultural and Fisheries Mechanization Law or RA 10601 to encourage local manufacturing and assembly of machinery and equipment for production, post-harvest, and processing activities. Government will intensify information, education and communication (IEC) activities on available local machinery (e.g., tractors, tillers, and harvesters), equipment, (e.g., mechanical dryers, threshers, and milling equipment) and fishing technologies (e.g., fiberglass hull and small engines in fishing boats).

For rice production to become more competitive, especially when the quantitative restrictions on the commodity are lifted, the government will encourage the adoption of farm machinery and equipment to reduce production costs. This will be undertaken especially in selected provinces of the Ilocos Region (Region 1), Central Luzon, and MIMAROPA—regions whose yields are above the national average (4 metric tons/hectare) but have relatively higher production costs.

The displaced labor from the promotion of mechanization will be linked to commodity diversification, value-adding, and AFF entrepreneurial activities. Proper training and certification for machine operation will also be provided, especially to low-skilled farm laborers and fishery workers. Custom hiring (e.g., renting of machinery and servicing of farm implements) and machine pooling will be encouraged to promote efficiency and provide alternative livelihood.

Strengthen the AFF extension system. The existing extension system will be strengthened through the engagement of a pool of professional extension workers that will provide technical and business advisory services. This should shorten the lag from R&D to adoption. Priority extension activities will include encouraging farmers and fisherfolk to use: (a) certified seeds and quality planting materials, especially high-yielding and stress-tolerant varieties (e.g., drought and flood); (b) quality semen of animals and eggs for poultry; and (c) quality fish fry and fingerlings. The government will recognize and advocate for the adoption of good practices (e.g., integrated pest management, integrated nutrient management, and sustainable fishing practices), and food safety and product standards (e.g., good agricultural practices, good aquaculture practices, good handling practices, code of practices for fresh fruits and vegetables, food hygiene practices, and packaging and transport practices). In addition, the government will continue to promote climate change adaptation measures, organic agriculture, urban agriculture, and halal food production. Timely and site-specific weather and climate advisories will be provided. Advanced information and communication technology (ICT) will be utilized to reach and serve a greater number of stakeholders.

The DA will continue to guide and coordinate extension units, and will also strengthen their links to R&D institutions and think tanks. The coordination and complementation between DA and LGUs will be strengthened for a more efficient delivery of extension services and feedback on farm-related problems. State universities and colleges (SUCs) will also be tapped to hasten the diffusion of good farm and fishery practices, indigenous and local knowledge, and appropriate technologies. To complement these, market-driven extension models such as nucleus estate model and multi-stakeholder partnerships led by the private sector will be supported.

Pursue an ecosystems approach to fisheries management. The government will undertake the following:

- conduct regular nationwide fish stock inventory and assessment
- implement appropriate fisheries management strategies such as scaling up of the Community-Based Coastal Resources Management, territorial use rights in fisheries, and closed season for selected species in some fishing areas
- strengthen measures against illegal, unreported and unregulated fishing
- regulate fishery structures such as fish pens and cages in inland bodies of water;

- implement boat, vessel and gear registration and licensing, and monitoring of compliance with catch documentation requirements among municipal and commercial fishing boats
- conduct aggressive information, education, and communication activities to increase awareness and appreciation of resource conservation measures, and to intensify compliance with fishery laws.

Subsector Outcome 2: AFF-based enterprises increased

Diversify into commodities with high value-adding and market potential. Commodities that can be developed based on vulnerability, suitability, and value-chain analyses of DA include mango for Ilocos, coffee for the Cordillera Administrative Region (CAR), dairy cattle for CALABARZON, calamansi for MIMAROPA, abaca for the Bicol Region and Eastern Visayas, rubber for the Zamboanga Peninsula, banana for Northern Mindanao, and cacao for the Davao Region. The adoption of integrated farming systems such as intercropping, livestock-crops, crops-livestock-fish, and agro-forestry will be promoted to maximize the use of land. The integrated color-coded agricultural map can be utilized for this purpose.

Expand AFF-based enterprises through new and innovative production and marketing schemes. New forms of linkages such as contract farming and corporate farming that will connect AFF enterprises to markets and other upstream services will be established. The government will lead in market facilitation through the conduct of domestic and international trade fairs and market-matching activities. It will also intensify enterprise-based capacity building and business advisory services for farmers and fisherfolk organizations, including ARB organizations. The capacity building and advisory will help the organizations manage profitable AFF-enterprises and effectively participate in the development of vibrant rural communities.

Strengthen community-based enterprises in upland areas. The government will continue to implement and monitor programs and projects that foster community-based enterprises in upland areas. At the same time, efforts will be undertaken to address issues of accessibility and connectivity, as well as vulnerability to climate and disaster risks.

Sector Outcome B: Access to economic opportunities by small farmers and fisherfolk increased

To increase the access of small farmers and fisherfolk to economic opportunities, the government will facilitate their access to value-chains, technology, and financing. At the same time, it will ensure that their rights and welfare are defended and asserted.

Subsector Outcome 1: Access to value-chains increased

Physically link production areas to markets through road and rail-based transport, inter-island water transport and logistics system. FMRs, bridges, tramlines, and railways will be constructed to connect small farmers and fisherfolk to the agricultural value chain. Inter-island water transport (e.g., roll on-roll off nautical highway) and port facilities such as fish ports, will be improved to foster greater inter-regional trade of agriculture and fishery produce. Climate and disaster risks will also be taken into account in the design of transport networks. *See Chapter 19.*

Organize small farmers and fisherfolk into formal groups and farms into clusters to create economies of scale. Social preparation such as organization building and management will be conducted among

smallholder farmers and fisherfolk who are not yet organized into associations and cooperatives. Efforts to integrate them into larger agribusiness enterprises and institutional buyers will also be pursued.

Provide capacity building for small farmers and fisherfolk on value-adding activities. Professional agricultural extension workers will be tapped to provide trainings to small farmers and fisherfolk in the farmer field schools and demonstration farms that will be established. The trainings will include processing, packaging, marketing, and compliance with product standards and certification.

Provide non-farm livelihood options to seasonal farm and fishery workers whose incomes are irregular and who are vulnerable to shocks. The government will continue to implement community-based employment programs as alternative income sources during the off-season. Seasonal workers will also be trained on off-farm and non-farm activities to enable them to take advantage of alternative employment opportunities, including their involvement in the development of agri-tourism.

Subsector Outcome 2: Access to innovative financing increased

Increase the number of small farmers and fisherfolk that are provided with agricultural insurance. This will be done by improving the awareness and appreciation of small farmers and fisherfolk of risk insurance. Innovative agricultural insurance schemes such as weather index-based and area-based yield index insurance will be promoted.

Provide small farmers and fisherfolk easy access to affordable formal credit. The government will develop and implement innovative loan products with responsive credit delivery mechanisms, and it will provide adequate information and assistance to borrowers on the available loans. It will also assess the credit demand of the agriculture sector. The Agri-Agra Law will be revisited to identify factors that limit its effectiveness and determine appropriate measures. The coverage of the Agricultural Guarantee Fund Pool Program will be expanded to include long-gestating crops.

Subsector Outcome 3: Access to technology increased

Raise investments in R&D for production and post-harvest technologies. This aims to reduce losses, maintain quality and food safety, and increase the value of agricultural and fishery commodities (e.g., ice-making and storage technologies). Investments will be increased to cover the direct cost of R&D, build a critical mass of human resources, and improve infrastructure in support of the Harmonized National R&D Agenda for Agriculture, Aquatic and Natural Resources 2017-2022. This agenda espouses the use of advanced and emerging technologies such as biotechnology, genomics, bioinformatics, nanotechnology, and ICT as tools to find science and technology solutions to AFF problems and to develop new products with significant impact to the sector. *See Chapter 14*.

The following will continue to be priorities for the sector: (a) development of climate and disaster-responsive technologies and innovations; (b) development of fishery culture system for species with high market potential; and (c) improvement of fishery culture for traditional species.

Enhance capacity of small farmers and fisherfolk to adopt better and new technologies. This entails information dissemination and capacity building on the use of certified seeds as well as post-harvest, processing and packaging technologies.

Subsector Outcome 4: Access of small farmers and fisherfolk to land and water resources increased and protected

Ensure and protect the land tenure security of ARBs by completing the LAD and immediately install ARBs in awarded lands upon the issuance of emancipation patent or CLOAs. An inventory of lands and profiling of ARBs will be conducted to ensure an updated status of land distribution in the country and guide the delivery of support services in agrarian reform communities and clusters.

Fast track the resolution of agrarian-related cases involving large numbers of affected farmers. Timely and free legal assistance will be provided to ARBs, including counselling and representation in judicial and quasi-judicial bodies.

Revisit Section 20 of the Local Government Code (RA 7160), which authorizes LGUs to reclassify agricultural lands for other uses. This law does not include any provision for sanctions or penalties to LGUs that reclassify agricultural lands more than the allowable limit (i.e., 15% for highly urbanized cities, 10% for component cities, and 5% for 4th-6th class municipalities). Hence, it is critical that LGUs provide baseline information about the LGU's land types, and this information will be the basis for implanting land classification.

Complete the delineation of municipal waters. Local ordinances must be issued to effect this. The Fisheries Code provision on fisherfolk settlement must also be implemented. Under the code, certain areas of the public domain, specifically near fishing grounds, will be reserved for the settlements of municipal fisherfolk.

Complement strategic efforts with environmental and governance strategies. To strengthen the efficiency and effectiveness of the strategies, the government will: (a) expand the existing human resource base by increasing scholarship opportunities in AFF-related courses *(see also Chapter 10)*; (b) continue to pursue the national convergence initiative using the ridge-to-reef approach; (c) strengthen resilience to climate and disaster risks; (d) regularly update the Registry System for Basic Sectors in Agriculture and Fisheries Registration, especially the information used in targeting for credit and agricultural insurance; (e) conduct a comprehensive market scoping to analyze competition issues in priority sectors, which may include land market *(see also Chapter 16)*; (f) ensure the meaningful participation of all stakeholders (i.e., through organized groups) in planning, monitoring and implementation; (g) strengthen coordination and convergence of the efforts of national government agencies, LGUs, civil society organizations, and SUCs on AFF concerns and cross-cutting issues such as food security and nutrition; and (h) intensify public-private partnership especially in rural infrastructure and logistics facilities to support value-chain development.

Legislative Agenda

To strengthen the effectiveness of identified strategies, legislative action is needed in the following.

Table 8.3 Legislative Agenda to Expand Economic Opportunities in Agriculture, Fisheries, and Forestry, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Sector Outcome A: Economic opportunities in AFF expanded	
Subsector Outcome: AFF productivity improved within ecological limit	
Abolish the irrigation service fees for small farmers	Waive the irrigation service fees to small farmers as many of them cannot afford to pay the fee imposed by the National Irrigation Administration on its national irrigation system. A minimal fee may be imposed on pump-driven irrigation systems as they have higher operating expenses. Wholesale condonation of past-due irrigation service fees of farmers and corporations with large landholdings (e.g., those owning 5 ha) may have to be restructured under mutually agreed terms and conditions so as not to additionally burden them, but at the same time to be fair to those who religiously paid the required fees.
Comprehensive Forestry Law, and Delineation of the Specific Forest Limits	See Chapter 20
Sector Outcome B: Access to economic opportunities by small farmers and fisherfolk increased	
Subsector Outcome: Access to innovative financing Increased	
Amend the Revised Charter of the PCIC Act of 1995 or RA 8175 as well as other relevant laws	Reorganize the Philippine Crop Insurance Corporation (PCIC) and increase its authorized ₱2 billion capital stock to cater more effectively to the demands of small farmers and fisherfolk.
Cross-cutting	
Amend or Repeal Presidential Decree No. 4 of 1972 as well as other relevant laws	Decouple the regulatory and proprietary function of the National Food Authority (NFA). The NFA will continue to exist but its role will focus on rice buffer stocking for food security
Amend the Agricultural Tariffication Act of 1996 or RA 8178	Replace quantitative restrictions on rice with tariffs. The tariff proceeds from rice imports will be ploughed back to the rice sector.
Provide guidelines for the utilization of the Coco Levy Fund.	Consolidate all assets and benefits emanating from the coconut levy. Create a Coconut Farmers and Industry Trust Fund to exclusively benefit coconut farmers and farm workers.
Pass the National Land Use Act (NALUA)	Protect prime agricultural lands thereby ensuring the viability and sustainability of on-farm employment and overall rural development. The definition of prime agricultural lands in the NALUA should represent a socially acceptable minimum agricultural land requirement that would maintain a certain level of agricultural industry in a given economic or spatial context at a given point in time. See Chapter 20.
Land Administration Reform Act	See Chapter 20
Genuine and Comprehensive Agrarian Reform Program.	Distribute for free or without amortization agricultural lands to landless farmers and agricultural workers. Its coverage will include: all public and private agricultural lands exceeding five hectares; lands that have been declared and/or reserved for non-agricultural uses but remain unutilized and undeveloped; and lands that have been reclassified or converted for commercial, industrial or residential uses but have remained undeveloped and being used for agricultural purposes.

09

Expanding Economic Opportunities in Industry and Services through *Trabaho at Negosyo*

Chapter 9

Expanding Economic Opportunities in Industry and Services through *Trabaho at Negosyo*

Expanding economic opportunities in industry and services (I&S) is critical to laying down the foundation for inclusive growth, high-trust society, and a globally competitive and resilient knowledge economy. Accordingly, increased access to economic opportunities for micro, small, and medium enterprises (MSMEs), cooperatives, and overseas Filipinos (OFs) is also crucial if more business activities are to be created to reduce inequality and poverty. This also takes into consideration factors related to the current and potential comparative advantage, environmental protection and biodiversity conservation, low carbon growth, disaster and climate resilient industries, and gender equality.

Assessment and Challenges

Remaining issues on logistics bottlenecks, mining, and natural disasters may inhibit the growth of domestic production and trade. Climate-resilient and reliable infrastructure, such as roads, bridges, railways, airports, seaports, stable power supply, and internet connectivity, continue to be inadequate. Mining activities are still concentrated in low-value adding activities. Economic activity and investments remain concentrated in the National Capital Region (NCR) and adjacent regions and has led to unequal development across regions. CALABARZON (Region 4A) had the highest share in total industry output, accounting for 32 percent from 2013 to 2015. The NCR registered the biggest share in total services output at 52 percent for the same period. The Autonomous Region in Muslim Mindanao (ARMM) had the smallest share in both sectors at 4 percent and 0.1 percent, respectively.[1]

Restrictive economic provisions of the Constitution, as well as pertinent laws, rules, and regulations limit foreign participation in certain sectors. Restrictions on foreign participation limit competition, investments, and trade in the country. Despite significant increases over the last six years, a comparison of net foreign direct investments (FDI) vis-à-vis selected ASEAN countries would show that, except for Thailand (USD4.8 billion), net FDI inflows to the country (USD5.7 billion) were lower compared with Singapore (USD65.3 billion), Indonesia (USD18.7 billion), and Malaysia (USD9.8 billion) in 2015[2].

[1] Philippine Statistics Authority. Various years. *Gross Regional Domestic Product Data and Charts*. Retrieved from: http://nap.psa.gov.ph/grdp/datacharts.asp

[2] Association of Southeast Asian Nations. *Foreign Direct Investment Statistics*. Retrieved from http://asean.org/?static_post=foreign-direct-investment-statistics

The cost of doing business remains high and reforms are yet to be fully implemented. Many of these involve cumbersome regulatory or licensing requirements and procedures. Business registration and licensing in some municipalities still need to be streamlined. Requirements for permits of national and local governments (e.g. numerous signatures needed to put up a power generation company), among others, need to be drastically cut *(see also Chapter 5)*. The Philippines jumped 41 places to 103rd out of 189 countries from 144th out of 183 countries in 2010 in the Doing Business Report 2015-2016 of the World Bank–International Finance Corporation.[3] The country's ranking in dealing with construction permits improved to 99 from 124. However, the country's ranking dropped in other indicators such as starting a business, trading across borders, and enforcing contracts.

Improving the competitiveness of the sectors to reduce vulnerability to uncertainties in the global market also continues to be a challenge. The slowdown in the global economy, including the Philippines' top trading partners Japan, European Union, United States (US), and China, may affect the performance of industry and services including trade. Exports are concentrated in few products and markets. Domestic firms are lagging behind in terms of technology and innovation processes *(see also Chapter 14)*. The opportunity for establishing domestic economic zones is currently underutilized. Such zones are important in integrating existing economic and freeport zone activities within the domestic economy. Most firms remain vulnerable to natural hazards and are unable to proactively manage the adverse effects.

Many consumers, especially in rural areas, still lack awareness of their rights to safety, information, and prices. In 2015, 23 percent of consumers surveyed said that they were unaware of these rights.[4]

The mismatch between the technical and practical skills of the labor force and the human capital needs of the sectors remains. This contributes to the slow absorption of available labor, and the out-migration of young technically-skilled and educated Filipinos. Industry accounted for 16.3 percent of total employment from 2013 to 2016, with manufacturing absorbing an average of 8 percent of its total. On the other hand, services accounted for 54.5 percent of total employment from 2013 to 2016. Wholesale and retail trade, specifically repair of motor vehicles, accounted for 19 percent of the total.[5]

Statistics on I&S, including those for MSMEs, are inadequate. These are needed to track the performance of the sectors, and the information is to be used as basis for strategic planning.

Political and security issues remain important considerations for investors. Investments in public and private construction in the next six years are likely to boost the growth of industry and services. With the government increasing expenditure on public infrastructure to at least 5 percent of GDP annually, demand for construction-related manufactures such as basic metals, fabricated metal products, and transport equipment, among others, is expected to grow. Manufacturing resurgence is also seen to drive industry growth in the medium term.

[3] The World Bank and International Finance Corporation. *Doing Business Reports*. Retrieved from http://www.doingbusiness.org/reports

[4] Department of Trade and Industry. 2016. *Geared for Global Opportunities - 2015 Annual Report*. Retrieved from http://www.dti.gov.ph/resources/publications

[5] *Philippine Statistics Authority – Labor and Employment*. Various years. *Current Labor Statistics*. Retrieved from http://psa.gov.ph/current-labor-statistics/statistical-tables

Investments in public infrastructure attract investments in private construction such as housing projects. The logistics subsector will benefit in the form of increased demand for transport and other related services, thus reducing time and cost of moving or transporting goods and labor. Improved connectivity is also expected to facilitate movement of products and people, including tourists, within the country.

The growing global interest in Asia provides an opportunity to attract investors to locate in the country. Increased investments will expand production and trade, not only for export but also for the growing domestic market. The country's strong macroeconomic fundamentals, growing middle income class, political stability, and rising consumer and business confidence make it an attractive investment destination. Worldwide tourist arrivals have also been increasing continuously. Among ASEAN members states, however, the Philippines trails behind Malaysia, Thailand, Singapore, Indonesia, and Vietnam in attracting tourists.

Strategic Framework

Reducing inequality in economic opportunities will require strategies that will expand these opportunities for in industry and services, and increase the access particularly of MSMEs, cooperatives, and OFs.

The creation of globally-competitive I&S will be pursued by integrating these sectors to strengthen forward and backward linkages toward more efficient supply and value chains. Developing globally competitive and innovative I&S products where the country's comparative advantage lies would depend heavily not only on the availability of raw materials, labor, and technology but also on the presence of adequate soft and hard infrastructure.

Targets

The following table presents the medium-term targets for industry and services (I&S). Gross value-added (GVA) in services and industry (particularly manufacturing) will be improved. Employment generation in these sectors will be increased. The targets correspond to the subsector outcomes outlined below.

Table 9.1 Plan Targets to Expand Economic Opportunities in I&S, 2017 – 2022

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	2022
Sector Outcome A: Economic opportunities in I&S expanded			
GVA in the industry sector improved (%)	2016	8.0	8.1-9.1
GVA in the services sector improved (%)	2016	7.5	6.9-7.9
Manufacturing GVA as a proportion of GDP increased (%) [6]	2016	23.2	to be determined
Employment generated from the industry increased annually (in thousands)**	2016	508	2,319 (2017-2022)
Employment generated from the services sector increased**	2016	1,179	3,515 (2017-2022)
Manufacturing employment as a proportion of total employment (%) [7]	2016	8.3	11.8
Subsector Outcome: Local and foreign investments increased			
Total approved investments increased (in million pesos)	2016	685,952.5	to be determined
Net foreign direct investment (in million dollars)*	2016	US$ 6,217.04	to be determined
Subsector Outcome: Competitiveness, innovativeness, and resilience increased			
Philippine overall ranking in the WB-IFC Doing Business Report improved	2017	99/190	to be determined
Subsector Outcome: Market access improved (refer to External Trade section of Chapter 15 –Sound Macroeconomic Policy)			
Subsector Outcome: Consumer access to safe and quality goods and services ensured			
Level of consumer awareness increased (%)			to be determined
Sector Outcome B: Access to economic opportunities in I&S for MSMEs, cooperatives, and OFs increased			
Proportion of small-scale industries (enterprises) in total industry value added increased [8]			to be determined
Subsector Outcome: Access to production networks improved			
Number of MSMEs participating in global value chains increased			to be determined
Subsector Outcome: Access to finance improved			
Proportion of small-scale industries (enterprises) with a loan or line of credit increased [9]	to be determined	to be determined	to be determined
Subsector Outcome: Productivity, efficiency, and resilience improved			
Number of barangay micro business enterprises registered increased			to be determined

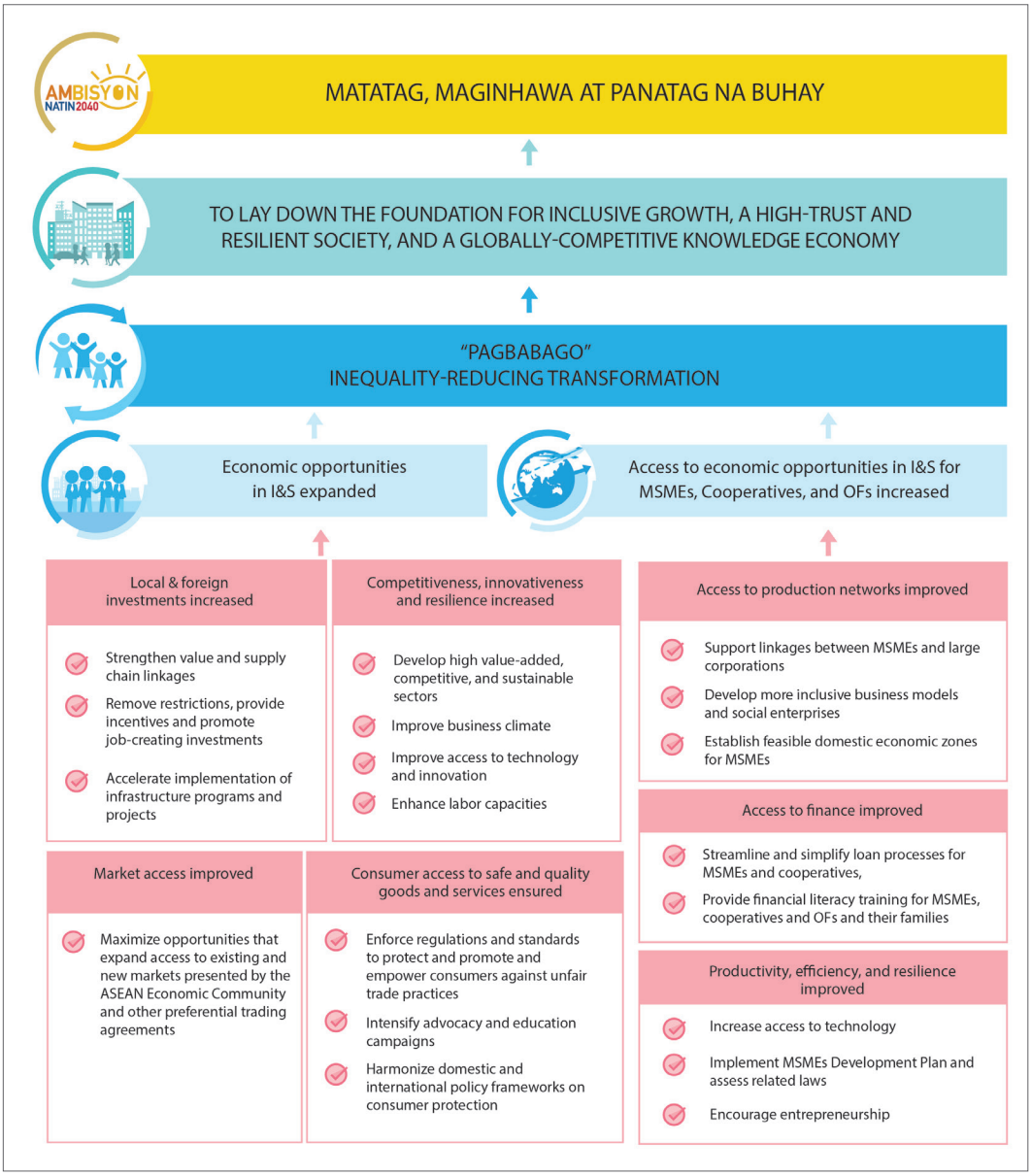
***Baseline data is as of Q1 2016*
**Baseline data is from Q1-Q3 of 2016*

[6] SDG Indicator 9.2.1
[7] SDG indicator 9.2.2
[8] SDG indicator 9.3.1
[9] SDG indicator 9.3.2

Strategies

As part of reducing inequality, the PDP 2017-2022 aims to expand economic opportunities in the industry and services sectors. It also seeks to increase the access of MSMEs, cooperatives, and overseas Filipinos to economic opportunities in industry and services. Through *trabaho at negosyo*, entrepreneurs will be encouraged to hire and pay for labor, thus contributing to employment generation and enabling enterprises to move the scale and gain efficiency.

Figure 9.1 Strategic Framework to Expand Economic Opportunities in I&S, 2017 – 2022



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

Sector Outcome A: "Trabaho": Economic opportunities in I&S expanded

Subsector Outcome 1: Local and foreign direct investments increased

Strengthen value and supply chain linkages

- *Implement the comprehensive national industrial strategy aimed at upgrading industry,* particularly manufacturing, agriculture, and services, while strengthening their linkages to domestic and global value chains. This will develop globally-competitive industries and services with strong forward and backward linkages, especially for MSMEs in regional and global production networks and global value chains.
- *Adopt a holistic market-driven perspective* in promoting and developing a high value and more profitable agribusiness sector. Farming technologies and techniques, supply chains, infrastructure, and a reliable property rights regime will be important in modernizing agricultural practices to improve productivity in agriculture *(see also Chapter 8).*
- *Improve backbone services*, such as financial, telecommunications, distribution, transport, and logistics services to facilitate the movement of people, goods, services, knowledge, and ideas as well as link firms, especially MSMEs, to domestic and global markets. Investments in infrastructure and logistics will also boost competitiveness, improve connectivity, and reduce costs.
- *Enhance business services* such as legal and accounting, research and development, and packaging to support manufacturing; and strengthen other sectors such as agriculture, fisheries, and other services.
- *Implement the new medium-term National Tourism Development Plan* which is anchored on improving competitiveness, enhancing development, and pursuing sustainable and inclusive growth, and convergence.

Remove restrictions, provide incentives, and promote job-creating investments

- *Amend restrictive economic provisions in the Constitution*; repeal or amend as appropriate relevant laws, rules, and regulations that impose restrictions on foreign participation in certain economic activities; and enhance the competitiveness of the industry and services sector by ensuring that regulations promote fair competition *(see also Chapter 16)*.
- *Modernize the incentive system to remove nationality and export biases* and make it more relevant to investors and more competitive with other ASEAN member states. With this, incentives will be simple, targeted, performance-based, and time-bound.
- *Implement aggressive investment promotion programs* to attract more FDIs, especially those that can bring in new technologies and competition, particularly in key public utilities.
- *Address cross-cutting issues* that impede the country's competitiveness such as high power cost *(see also Chapter 19)*.
- *Support the development of the services subsectors outside value and supply chains* such as social services[10].

[10] Based on UN Central Product Classification, covers welfare services delivered to old persons and the handicapped; child daycare services including daycare services for the handicapped; guidance and marriage counselling services, among others (CPC (932))

Accelerate the implementation of infrastructure programs and projects

- *Ramp up spending on infrastructure to at least 5 percent of annual GDP* to improve the country's economic and social environment. Aside from physical infrastructure, the development of the information and communications technology (ICT) sector is essential to strengthen the value chain linkages in I&S *(see also Chapter 19)*.

Subsector Outcome 2: Competitiveness, innovativeness, and resilience of industries and services increased

Develop high-value added, competitive, and sustainable sectors

- *Improve the competitiveness of I&S* to transform the economy and achieve broad-based growth. This entails, among others, ensuring openness of services markets; promoting good regulatory practices and sound competition policy framework and institutions; fostering dynamic, competitive, and effective ICT policies; and improving people-to-people, physical, and institutional connectivity.
- *Adopt a cluster-based industrial approach* to promote inter-firm cooperation and agglomeration and build a strong and competitive regional economy *(see Table 9.2)*. [11]
- *Provide incentives for green manufacturing* to encourage companies to shift to energy efficient technologies.
- *Fully implement the Green Jobs Act* to promote green growth, blue economy *(see also Chapter 8),* and innovation, among others.
- *Focus attention on boosting services exports* by moving up the global value chain of the IT-BPM industry and increasing the country's market share in international tourism, including health and education services; promoting creative industries that cover both

Table 9.2 Priority Sectors by Region

REGION	PRIORITY SECTOR [11]
I	coffee, cacao, processed fruits, processed meat, tourism
II	processed fruits, processed meat, coffee, furniture, cacao, agribusiness
III	bamboo, furniture, aerospace, processed meat, shipbuilding, aerospace
CALABARZON	auto, electronics, petrochemical, Information Technology and Business Process Management (IT-BPM), chemicals, aerospace
MIMAROPA	seaweed, cacao, rubber, coco coir, tourism
V	metal casting, coco coir, health care, agribusiness
VI	processed meat, processed shrimp, tourism
VII	seaweed/carrageenan, dried mangoes, furniture, IT-BPM, shipbuilding, tourism
VIII	processed meat, copper, processed marine, processed fruits, natural health products, agribusiness
IX	rubber, cacao, processed fruits (mango), coconut, agribusiness
X	rubber, bamboo, cacao, coco coir, coffee, agribusiness, tourism
XI	processed meat, seaweed/carrageenan, cacao, agribusiness, tourism
XII	rubber, palm oil, processed fish/aquamarine, tourism, agribusiness
Caraga	processed marine, palm oil, rubber, agribusiness
CAR	coffee, processed vegetables, aerospace, electronics, tourism
ARMM	coffee, rubber, cacao, palm oil, agribusiness

[11] Based on the national industry roadmap localization and consultation conducted by the DTI-BOI

tangible products and intangible services[12]; and developing the potential of the Philippines in digital trade and e-commerce. To support these priorities, services-related statistics will be developed to support plan implementation and monitoring.

Improve the business climate

- *Implement structural reforms to create more open, well-functioning, transparent, and competitive markets*. These include creating a competent national body for multimodal transport; formulating and implementing a national broadband plan *(see also Chapter 19)*; institutionalizing a Quality Regulatory Management System *(see also Chapter 16)*; and removing unnecessary regulatory burden through Project Repeal *(see also Chapter 5)*.
- *Simplify the rules and regulations on business registration and licensing, entry and exit, paying taxes, and access to finance* to encourage the rapid growth of businesses of all sizes and the movement of small firms to the formal sector. Harmonizing and streamlining procedures among national government agencies and local government units will minimize, if not eliminate, redundancies and overlaps. Full implementation of the Philippine Business Registry and the Business Permit Licensing System will also facilitate start-ups and help reduce transaction costs.

Improve access to technology and innovation

- *Establish the National Quality Infrastructure* to harmonize the country's strategies on metrology, standards, and accreditation, where accreditation includes certification, inspection, and testing.
- *Establish an Inclusive Innovation Center* to support the development of the country's innovation system and facilitate inter-firm and academe-industry collaboration in high-technology activities *(see also Chapter 14)*.
- *Encourage innovation and adoption of new technologies* to spur the development of new services *(see also Chapter 14)*.

Enhance labor capacities

- *Invest in human capital development* based on the transformation of jobs, facilities, processes, and future skills needs *(see also Chapter 11)*.
- *Strengthen industry-academe linkages* to help meet labor market needs and reduce future jobs-skills mismatches. This will also increase opportunities for lifelong learning *(see also Chapter 11)*.

Subsector Outcome 3: Market access improved *(see Chapter 15)*

Subsector Outcome: Consumer access to safe and quality goods and services ensured

Heighten consumer vigilance on product safety, value for money and access to quality goods and services. Quality consciousness among consumers will be promoted while enforcing strict compliance with technical regulations by manufacturers/suppliers. Awareness on consumer rights will be increased through intensified advocacy and education campaigns, particularly in the secondary and tertiary schools. Campaigns on value for money, safety, and quality of goods and services will maximize the use of multimedia.

[12] The UNCTAD classification of creative industries covers heritage (traditional cultural expressions and cultural sites), arts (visual and performing arts), media (publishing and printed media & audiovisuals) and functional creations (design, new media, and creative services including advertising and architecture) (UNCTAD 2010, p. 8-9).

Build stronger linkages and partnerships with private sectors and professional associations to strengthen consumer redress mechanisms. Redress mechanisms for speedy resolution of consumer complaints will be made available through partnership with professional associations while advocacies for consumer concerns are channeled through reputable consumer organizations in all provinces.

Harmonize domestic and international policy framework on consumer protection. Consumer protection policies will be modernized and aligned with international policies to become adaptable to changes brought about by globalization and technological advancement.

Promote consumer protection. Standards and regulations will be enforced to protect and empower consumers against unfair trade practices. Policies against fraudulent business schemes will be strengthened, and enforcement activities intensified.

Sector Outcome B: "Negosyo": Access to economic opportunities in I&S for MSMEs, cooperatives, and OFs increased

Subsector Outcome 1: Access to production networks improved

This entails supporting the linkage between MSMEs and large corporations to facilitate increased participation of the former in global value chains; developing more inclusive business models and social enterprises; and establishing feasible domestic economic zones for MSMEs in accordance with relevant laws.

Subsector Outcome 2: Access to finance improved

Increase access to finance. Loan processes for MSMEs, cooperatives, and OFs need to be streamlined and simplified. A more comprehensive credit information system needs to be established to help cooperatives and financial institutions better assess credit risk and make more informed lending decisions.

A policy for alternative collaterals for borrowers also needs to be developed. Appropriate financial products, services, and support programs for MSMEs (especially start-ups and those operating in the countryside) and cooperatives need further development.

Enhance financial literacy. Financial literacy trainings for MSMEs, cooperatives, and OFs and their families to help them understand and access financial products will likewise be provided. *(see also Chapter 15)*

Assess MSME-related laws. Assess the implementation of, and compliance with, the Microfinance NGOs Act and Credit Surety Fund Cooperative Act, and determine if and where remedial legislation is needed.

Subsector Outcome 3: Productivity, efficiency, and resilience enhanced

Increase access to technology. Expand the Small Enterprise Technology Upgrading Program and Shared Service Facilities to areas where the poor reside. The upgrade of existing testing, calibration, and quality assurance services will broaden the access of MSMEs to innovative, appropriate, and cost-effective technologies.

Implement MSME development plan and assess MSME-related laws. Implement the MSME Development Plan particularly the productivity and efficiency portfolio, taking into account the 2017-2022 Livelihood Agenda, which aims to foster the convergence of different livelihood and entrepreneurship programs of government agencies.

The government also needs to assess the implementation of, and compliance with, MSME laws (i.e., Go Negosyo Act, Magna Carta for MSMEs, and the Barangay Micro Business Enterprises Act) and determine if and where remedial legislation is needed.

Encourage entrepreneurship. Households receiving OF remittances need to be encouraged to put these to more productive use and invest cash transfers from abroad in business activities in the country. A broader base for MSME development will thus be created.

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed on the following:

Table 9.3 Legislative Agenda to Expand Economic Opportunities in I&S, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Sector Outcome A: Economic opportunities in I&S expanded	
Subsector Outcome: Local and foreign investments increased	
Amend certain economic provisions of the Constitution	Relax restrictive foreign ownership provisions of the Constitution to attract more FDI.
Pass the Ease of Doing Business Act	Enhance market competition through improving ease of doing business. This legislation will sustain the intention of Project Repeal to review existing policies, statutes, and regulations, and eventually repeal unnecessary issuances.
Amend the Public Service Act	Define "public utility".
Amend the Retail Trade Liberalization Act	Align guidelines for foreign investments with the Foreign Investment Act and lower capital requirements for foreign enterprises and harmonize with those observed in Asian countries.
Repeal or amend the Flag Law (Commonwealth Act 138)	Create a level playing field for foreign firms in bidding for government procurement.
Adopt an open access policy	Adopt and enforce open access in various segments of the telecommunications market (e.g. backhaul and backbone facilities) on a non-discriminatory basis and publicize prices in order to introduce effective competition in the broadband or telecom market.
Subsector Outcome: Competitiveness, innovativeness, and resilience increased	
Set up a National Quality Infrastructure system	Integrate and coordinate standardization, metrology, testing analysis, quality management, certification, and accreditation.
Subsector Outcome: Consumer access to safe and quality goods and services ensured	
Amend the Consumer Act	Increase protection of consumers and harmonize existing law with current and future technological advancements.
Sector Outcome B: Access to economic opportunities in I&S for MSMEs, cooperatives, and OFs increased	
Subsector Outcome: Access to production networks improved	
Institutionalize the industry cluster approach	Pursue local economic development through inter-local cooperation among LGUs and strengthen people participation in community development.
Inclusive Business Bill	Provide for the establishment of a national strategy for the promotion of Inclusive Businesses to be implemented by the Inclusive Business Center. This also provides policies for accreditation, support, and incentives.
Social Enterprise Bill	Provide framework for the planning and implementation of a National Poverty Reduction Through Social Entrepreneurship Program. This also promotes social enterprises as a tool in the government's poverty reduction program.

10 Accelerating Human Capital Development

Chapter 10

Accelerating Human Capital Development

Equalizing opportunities for human development is an important part of the Philippine Development Plan (PDP). Under the pillar *Pagbabago,* the PDP recognizes human development not just as a means to an end (i.e., human capital as a factor of production) but also an end in itself. Thus, in the next six years, individuals and people groups will have more options to develop their full potential. Better human development outcomes will be attained by reducing inequalities in the Filipinos' ability to stay healthy, be well-nourished, and continue learning throughout their lives. Inclusive strategies and other interventions will be directed at ensuring that all Filipinos, especially the poor and underserved, will have long, healthy, and productive lives; lifelong learning opportunities; and improved income-earning ability. This is consistent with the Filipino people's aspirations, as articulated in AmBisyon Natin 2040.

Assessment and Challenges

In the past several years the government has made large investments in health and education to address backlogs accumulated over decades while also trying to meet increasing demand brought about by population growth. This proved to be a great challenge for the government; thus, the outcomes of such investment in terms of genuine human development have been uneven at best.

Nutrition and Health

Improvements in nutrition and health *(Table 10.1)* were supported by the increase in health insurance coverage for indigents beginning 2013 as government increased budget support to the National Health Insurance Program (NHIP). In addition, service delivery and coverage were enhanced by legislation, particularly those that expanded health insurance to automatically cover senior citizens and indigents, enhanced immunization of infants and children, and provided a clear policy on reproductive health care.

Access to quality health services has improved but there are still gaps that need to be addressed. Access to quality health services improved with the increased coverage of the NHIP and the construction and upgrade of health facilities. The coverage rate significantly increased from 2012 to 2015 as more of the poor were enrolled and availed of medical services. Benefit packages were also continuously increased and enhanced to reduce out-of-pocket medical expenses. *See Chapter 11.*

In addition, 7,713 health facilities[1] were constructed and upgraded from 2010 to 2016, half of which are barangay health stations providing primary health care closer to people within the community. More health facilities would have been upgraded had there been no delays in

[1] 4,332 Barangay Health Stations (BHS), 2,626 Rural Health Units (RHUs), 685 LGU Hospitals, and 70 DOH hospitals.

project implementation.[2] The number of public health professionals deployed increased from 439 in 2010 to 23,836 in 2016. Majority of these are nurses deployed in under- and unserved communities. However, there are still geographically-isolated and disadvantaged areas (GIDAs) with inadequate number of health workers. Additional financial sources are required to: (a) provide the sufficient number of Human Resources for Health (HRH) and retain them in service; and (b) adequately respond to community needs.

Children and their families have been poorly nourished. More families had difficulty improving their nutrition status. The prevalence of underweight children under five and the proportion of households with per capita intake below 100 percent of dietary energy requirement worsened from 2008 to 2015, missing the plan target for 2015. These burdened the efforts to address the prevalence of stunting (33% in 2015) and wasting (7.1% in 2015), which remained high in all regions of the country. This poor performance is partly attributed to the weak multi-sectoral and multilevel approach to address malnutrition.

Infant and under-five health outcomes improved but safe childbirth remains a concern. While infant and under-five mortality decreased from 2011 to 2015, maternal mortality remains high. This means that pregnant women continue to experience the "three delays"[3] in maternal health care. For example, even as improved maternal health service delivery resulted in increased proportion of births attended by a health professional and births delivered in a health facility for the period 2011to 2015, the end-of-plan targets were not achieved.

Progress in family planning initiatives was reversed. The contraceptive prevalence rate (all methods) in the country improved in 2011-2013 but progress was reversed in 2015. Use of modern methods remained low at 35.7 percent in 2015. The low contraceptive use was partly due to the weak family planning service delivery network and the lack of a nationally-led advocacy campaign. Poor access, especially among the youth, has led to an increase in the incidence of teenage pregnancies.[4] Implementation of the Responsible Parenthood and Reproductive Health (RPRH) Law remains a challenge because of the temporary restraining order (TRO) on contraceptive products and supplies. Such TRO threatens the full implementation of the RPRH law in addressing unmet needs for family planning services. This will adversely affect efforts to reduce maternal mortality and rising teenage pregnancy in the country, thereby making it more difficult to significantly reduce poverty during the current administration.

Progress in combating communicable diseases has been uneven. The 2015 targets for malaria mortality and tuberculosis detection rates were met. While malaria morbidity rate significantly declined from 2011 to 2014, it increased again in 2015. The increase in malaria morbidity and mortality was concentrated in endemic areas (e.g., Palawan) and among indigenous peoples and mobile populations.

There has been a substantial increase in newly-diagnosed HIV cases. Prevalence of HIV remains below one percent of the total population but there has been a steady increase in the number of newly-diagnosed HIV cases since 2010. The number of new

[2] Disagreement on the design of buildings, multiple construction assignments of some contractors, poor coordination, and maintenance of services during construction (Picazo, Pantig, and dela Cruz 2015)
[3] Delay in seeking care, in reaching a health facility, and in receiving care in the facility
[4] Data from the latest Young Adult Fertility Survey (YAFS) show that the percentage of females aged 15 to 19 years who have begun child bearing increased from 6.3 percent in 2002 to 13.6 percent in 2013.

cases detected per day rose from 4 in 2010 to 26 in 2016.[5] Majority of these new cases can be found among 15-34 year olds and in highly-urbanized areas. Regions with the highest number of cases are the National Capital Region (NCR), CALABARZON, and Central Visayas. At present, HIV cases are concentrated in the following most-at-risk populations (MARPs): (a) males who have sex with males (MSMs); (b) people who inject drugs (PWIDs); and (c) female sex workers (FSWs). It should be noted, though, that the increased reported cases may be due to better surveillance and testing methods.

Target on access to safe water was met but access to sanitary toilet facilities was missed. The target for access to safe water had already been exceeded in 2015, and the target for families with access to sanitary toilet facilities was almost met in the same period. However, there were still 1.2 million households with no access to safe water and 1.8 million households with no access to sanitary toilet facilities.[6]

Table 10.1 Health Indicators in the Results Matrix of the Updated Philippine Development Plan and Selected Health Millennium Development Goals (MDGs) Indicators

PDP Health Indicators	Baseline		Accomplishment					Targets	
	Year	Value	2012	2013	2014	2015	2016	2015	2016
National Health Insurance Program (NHIP) coverage rate increased (%) e	2012	72	72	67	87	92	90 (1st Sem)	90	95
Prevalence of underweight children under five decreased (%)b	2011	20.2		19.9		21.5		13.7	12.7
Proportion of households with per capita intake below 100% of dietary energy requirement decreased (%)b	2008	66.9		68.3				37.1	32.8
Infant mortality rate per 1,000 live births decreaseda	2011	22		23		21*		19	17
Under-five mortality rate per 1,000 live births decreaseda	2011	30		31		27*		27	26
Maternal mortality ratio per 100,000 live births decreaseda	2011	221				149*(*		52	50
Proportion of births attended by health professional increased (%)a	2011	72.2		72.8		77.7*		90	90
Proportion of births delivered in facility increased (%)a	2011	55.2		61.1		69.8*		80	85
Contraceptive prevalence rate (all methods) increased (%)a	2011	48.9		55.1		42.8*		63	65
Malaria mortality rate per 100,000 population decreased c	2011	0.01		0.01	0.008	0.019		<0.03	<0.03
Malaria morbidity rate per 100,000 decreased c	2011	9.5		7.9	4.9	8.0		6.6	6.6
Tuberculosis case detection rate (all forms) increased (%)c	2012	82		85	87	94		85	85

[5] DOH data for the period January to November 2016
[6] Number of households, 20.2 million based on the 2010 Census of Population and Housing

PDP Health Indicators	Baseline		Accomplishment					Targets	
	Year	Value	2012	2013	2014	2015	2016	2015	2016
HIV prevalence decreased (% of population)c	2012	<1		<1	<1	<1		<1	<1
Proportion of population with access to safe water increased (families in %) d	2011	83		83.8	85.5	94.5* (HHs)		87	88
Proportion of population with access to sanitary toilet increased (families in %)d	2011	91.6		92.2	94.1	91.2*		>92	>92

Sources:

[a] 2011: Family Health Survey, Philippine Statistics Authority; 2013: National Demographic and Health Survey. Philippine Statistics Authority

[b] National Nutrition Survey, Department of Science and Technology-Food and Nutrition Research Institute

[c] Program data, Department of Health

[d] Annual Poverty Indicator Survey, Philippine Statistics Authority

[e] Philippine Health Insurance Corporation

**Note that these values were from the 2015 National Nutrition Survey MDG Rider questions and have not been published as official by PSA and DOH.*

Health care for people with special needs has been inadequate. There is a need to address the healthcare requirements of certain groups with special needs such as indigenous peoples, persons with disabilities (PWDs), and those in GIDA and disaster-prone areas. For example, health outcomes in ARMM[7] lagged behind most regions. Also, indigenous peoples have poor health outcomes because traditional knowledge and culture may not have been considered in the implementation of national health programs. Older persons, on the other hand, require specialized geriatric services, while PWDs need access to affordable rehabilitation and therapy services.

"Triple burden of disease" is a public health concern. Morbidity caused by infectious diseases, mortality by non-communicable diseases (NCDs), and emerging incidence of injuries, mental health, and alcohol and drug abuse threaten the country with the triple burden of disease. Since mortality from NCDs is increasing, the public needs to be aware of risk factors such as smoking, excessive alcohol consumption, poor diet, and lack of physical activity. Addressing nutrition *in utero* is also important as it affects health outcomes later in life. For example, growth retardation of the fetus is associated with higher rates of NCDs in adulthood.

Emergency situations disrupt the implementation of routine and normal programs. Floods, earthquakes, and pandemics spread diseases and cause malnutrition. The ensuing disruptions in providing safe water, sanitation, and health care services can reverse the gains in health outcomes and create new threats. *See Chapter 12.*

Financing for nutrition and health services by local government units (LGUs) is inadequate. LGU spending on health is around 7 percent of total government health expenditure from 2013 to 2014.[8] There are also variations in nutrition and health budget allocation among LGUs, from 9 to 14 percent of total budget in

[7] Lagged in under-five mortality, contraceptive prevalence rate, proportion of births proportion of births attended by health professional, births delivered in a health facility, and proportion of population with access to safe water based on the 2013 National Demographic and Health Survey.

[8] The Philippine National Health Accounts (PNHA)

2014[9]. The allocation depends largely on the priority of the local chief executives. This inadequate financing results in inequalities in nutrition and health service delivery, and consequently, affect the nutrition and health status of the population.

Data gaps constrain decision-making for nutrition and health. There is a need to resolve quality issues on coverage, timeliness, reliability, consistency, and coherence of administrative and survey data. Lack of quality data can hamper proper decision-making, thus affecting the implementation of health interventions.

Basic, Higher, and Technical Education

Key reforms in education increased access and improved the quality of basic education, improved the competencies of the workforce, and produced high-quality graduates. Data from the Human Development Report 2015 showed that mean years of schooling slightly improved from 8.2 in 2010 to 8.9 in 2014. However, more work needs to be done to attain missed education targets.

Basic Education

Enrolment rates increased but targets were missed. An institutionalized kindergarten pushed enrolment to as high as 79 percent, which could have been higher if not for a change in age requirement. At the elementary level, most recent data showed that net enrolment rate (NER) reached 91 percent in school year (SY) 2015-2016. Annual data for NER may not be compared because of recent improvements in tracking learners through the use of the Learner Information System (LIS). NER at the secondary level increased from 64.70 percent in 2010 to 68.15 percent in 2015. Enrolment in the first year of Senior High School (SHS)[10] in 2016 was higher than anticipated. The support extended to learners played an important role in this outcome, with 715,337 Grade 11 learners availing of the voucher program.

Raising the quality of education remained a challenge. Elementary and secondary achievement rates stayed low, and this is indicative of the low quality of education. Contributing to this was a lack of teacher competencies,[11] high student-teacher ratios, absence of basic educational facilities, and the quality of classrooms.

Efficiency improved at the elementary level, with mixed results at the secondary level. Completion rates (CompR) and cohort survival rates (CSR) at the elementary level improved. At the secondary level, while CSR increased during the same period, CompR decreased significantly in SY 2015-2016. The decline in CompR may be due to students' lack of personal interest, need to look for work, and insufficient family income.[12] Moreover, among the out-of-school children and youth 6 to 24 years old, marriage was the most common reason for not attending school.

Drop-out rates decreased from 6.29 percent in SY 2010-2011 to 2.70 percent in SY 2015-2016 at the elementary level and from 7.79 percent to 6.65 percent at the secondary level. Comparison between sexes, however, showed that more boys were unable to finish school than girls. Drop-out rates for males was at 0.65 percent and 3.32 percent

[9] 2014 LGU Scorecard, DOH
[10] Enrolment reached 1.5 million with 60% of students in the Academic track, 39% in Technical-Vocational-Livelihood track, and less than 1% in the Arts and Design track
[11] World Bank. 2016. Developing a *Proficient and Motivated Teacher Workforce in Assessing Basic Education Service Delivery in the Philippines* Policy No. 2
[12] 2013 Functional Literacy, Education, and Mass Media Survey

Table 10.2 Basic Education Indicators in the Results Matrix of the Updated Philippine Development Plan 2011-2016

INDICATORS	BASELINE		ANNUAL PDP TARGETS			ACCOMPLISHMENT	
	YEAR	VALUE	2014	2015	2016	2014	2015
Net enrolment rate increased (in %)							
Kindergarten	2010	57.2	89.7	100.0	100.0	79.30	74.65
Elementary	2010	95.9	97.0	98.0	99.0	92.57	91.05
Secondary	2010	64.7	68.0	70.0	71.0	63.23	68.15
Adjusted net enrolment rate increased (in %)							
Elementary	2010	98.5	99.0	99.0	99.0	93.01	91.84
Secondary	2010	92.5	95.0	97.0	99.0	86.19	82.24
Completion rate increased (in %)							
Elementary	2010	72.1	78.0	81.0	83.0	83.04	83.43
Secondary	2010	75.1	76.0	78.0	80.0	78.70	73.97
Cohort survival rate increased (in %)							
Elementary	2010	74.2	79.0	81.0	83.0	85.08	87.07
Secondary	2010	79.4	81.0	83.0	85.0	81.24	80.75
Achievement rate increased (in %)							
Elementary	2010	68.2	73.0	75.0	77.0	69.1	-
Secondary	2010	47.9	57.0	62.0	65.0	49.48	-

Sources: EMIS, DepEd

in the elementary and secondary levels, respectively, compared with girls at 0.36 percent and 1.64 percent.

Quality early childhood care and development (ECCD) programs are seen to better prepare young children for formal education. The number of three- to four-year-old children in LGU-managed child development centers (CDCs) increased as more CDCs were established.[13] However, this constitutes only 41 percent of the total 4.3 million 3-4 year old children in 2013.

Disparities within the sector and among regions persist. Enrolment data on special education (SpEd) for SY 2015-2016 showed that there were only 2,571 publicly-funded SpEd teachers, 37 pure SpEd centers, and 278 regular schools with a SpEd centers catering to about 150,000 students with special needs in public schools.

The Alternative Learning System (ALS) was able to serve 1,020,049 or 23 percent of the total out-of-school youth aged 16 to 26 years. As of 2012, there were only around 9,000 learning facilitators involved in implementing ALS[14].

Despite the increased number of teachers with the creation of 169,511 teaching positions from 2010 to 2015, the average teacher-student ratio at the elementary level remained higher than the national average (1:33 in SY 2015-2016) in some regions such as ARMM (1:41), CALABARZON (1:37), Davao Region (1:36), and NCR (1:36). Likewise, for SY 2014-2015, student-classroom ratio was higher than the national average of 1:34 at elementary and 1:48 at secondary level in CALABARZON (1:41 and 1:52), Bicol Region (1:35 and 1:41), Davao Region (1:41 and 1:46), ARMM (1:49 and 1:55), and NCR (1:70 and 1:60).

[13] In 2013, CDCs increased from 50,144 to 52,665 while children served increased from 1.6 million to 1.8 million
[14] World Bank. 2016. *Alternative Learning System Study: Alternative and Inclusive Learning in the Philippines*

Regional data showed that ARMM continued to lag in all performance indicators. Based on the results of the baseline study on learning outcomes, the current level of teacher proficiency in ARMM may explain the low performance of students[15].

The mixed performance in basic education points to the need to focus on sectors that are left behind, to improve quality, and to address disparities across regions. This will entail: (a) strengthening capacity building among basic education teachers and other educational agents (including school administrators and non-teaching personnel); (b) ensuring that curriculum is responsive and relevant (gender-responsive, culture-sensitive) to the needs of the community and will be able to develop 21st century skills; (c) improving school facilities and providing additional classrooms and teachers for new school entrants due to natural population increase and migration; and (d) prioritizing the provision of quality learning resources such as textbooks, libraries, tools and equipment, and ICT-assisted learning.

Higher and Technical Education

The overall performance of Technical-Vocational Education and Training (TVET) is laudable, but inclusive access, desirability, and quality remain a challenge. TVET enrolment and number of graduates surpassed the end-of-plan targets with modest improvements from 2011 to 2015. Subsequently, the number of skilled workers who underwent competency assessment improved from 835,000 in 2011 to 1.4 million in 2015. Certification rate also increased by 6.9 percentage points during the same period. This means about 9 out of 10 workers assessed had been certified.

Majority of the graduates in 2012 are in the young age groups of 15-24 (61%) and 25-34 (23%) years old. By income class, the bigger shares of enrolment remain in the middle socioeconomic classes. The sex distribution in TVET graduates in 2012 is about even, with males at 50.6 percent and females at 49.4 percent. Misconceptions about TVET could explain the lack of inclusive access, as college education is a more attractive option to enhance employability and increase capacity. The need to upgrade quality as evidenced by the lack of qualified trainers and equipment and the non-responsiveness of curriculum to industry needs may also explain the limited access of vulnerable groups to quality technical education. There is also a need to increase the capacity of the Technical Education and Skills Development Authority (TESDA) and its accredited training institutions to respond to the needs of persons with disabilities and to offer higher-level qualifications such as National Certificate (NC) III and IV.

The higher education system is beset by stubborn issues which, in light of 21st century challenges, require urgent, tactical, and transformative solutions. The number of graduates of higher education (1,775,659 in 2014) has exceeded expectations, and this may be partly due to the increase in the beneficiaries of higher education scholarships and financial assistance programs of the Commission on Higher Education (CHED). Nonetheless, the quality of Philippine higher education graduates remains an issue. While the number[16] of higher education institutions (HEIs) in the Philippines is ten times

[15] Australian Aid, et al. 2015. *Baseline Study on Improved Learning Outcomes in ARMM*

[16] The commercialization of higher education is reflected in the rapid expansion of SUC satellite campuses, legislated conversions of ineligible state colleges into universities, establishment by ordinance of new local colleges, board authorization of programs in public HEIs that are not aligned with CHED policies and standards, and the privileging of business interests over quality considerations in many private HEIs.

more than its neighboring countries,'[17] the Philippines' lackluster performance in producing innovators (ranked 74 out of 128 in the 2016 Global Innovation Index), researchers (81 researchers per million population versus 205 in Indonesia and 115 in Vietnam), and knowledge producers (28 out of 777 journals or 3.6 percent are listed under Thomson Reuters, Scopus, or both) indicates the level of quality that seems to have accompanied expanded access to higher education. Indeed, the country has lagged behind many of its ASEAN neighbors in producing the knowledge builders, researchers, innovators, job creators, solutions seekers, and solutions providers needed to effectively function in a knowledge economy.

Exacerbating the question of quality is the lack of faculty with advanced degrees in higher education. Quality is further compromised by the low number of HEIs with accredited programs and the low national passing percentage in licensure examinations. The poor quality of graduate programs and inadequate attention to research and technological innovations have reinforced a deficient science and innovation culture and lack of interest among young Filipinos to pursue scientific, engineering, and technical studies.

Adding to the challenge of providing quality higher education is the mismatch between higher education and industry requirements. These may be attributed to: (a) underdeveloped 21st century competencies among graduates; (b) adherence to a teacher-centered and input-based education paradigm; and (c) the uncritical application of the evolving quality standards of universities (e.g., publications in peer-reviewed journals) to Philippine HEIs regardless of mission, thus resulting in watered-down standards for universities and inefficiencies in other types of HEIs (e.g., allocation of funds for token research centers instead of laboratories). Organizational issues within the bureaucracy and questionable practices also need to be addressed. Lastly, HEIs need to be responsive to international challenges and developments in higher education, as they can affect the country's regional and global competitiveness.

Table 10.3 Higher and Technical Education Indicators in the Results Matrix of the Updated Philippine Development Plan 2011-2016

INDICATORS	BASELINE		ANNUAL PDP TARGETS			ACCOMPLISHMENT	
	YEAR	VALUE	2014	2015	2016	2014	2015
Certification rate in TVET increased (in %)	2010	82.9	86.5	87	87.5	91.3	91.1
TVET graduates increased	2010	1,344,371	1,464,000	1,610,510	1,771,560	1,785,679	2,129,758
Higher education graduates increased	2010	498,418	567,531	584,474	601,505	632,076	692,602
Proportion of HEI faculty with MA increased (in %)	2010	38.87	55	60	65	40.81	40.34
Proportion of HEI faculty with PhD increased (in %)	2010	11.09	20	25	30	12.54	12.62
HEIs with accredited programs increased (in %)	2010	19.89	24	25	26	25.38	26.63
National passing percentage (across disciplines) in licensure exams increased (in %)	2010	33.91	49.72	50.94	52.53	61.45	58.59

[17] CHED data show that the Philippines has 1,923 higher education institutions in AY 2013-2014, which is more than ten times the institutions in Indonesia (191), Thailand (159), Vietnam (148), and Malaysia (124).

The passage of laws, such as the K to 12 and the Green Jobs Act, and commitment to international frameworks, require the allocation of resources for emerging needs. The full implementation of K to 12 may see a surge in HEI faculty displacement[18] and a decline in HEI enrolment in the short-term. The passage of the Green Jobs Act in 2016 also marks the need to prepare the faculty, facilities, and curriculum for the knowledge and skills requirement of a green economy. The commitment to internationalizing higher education entails re-examining current quality assurance systems and student transfer policies to ensure that programs are at par with international standards. Lastly, the approval of the ASEAN Qualifications Reference Framework (AQRF), which will ease learner mobility within the ASEAN region, requires updating of course programs and addressing issues related to the Mutual Recognition Agreements (MRAs), such as the alignment of domestic regulations with specific MRAs, lack of budgetary support, and inadequate collaboration between the public and private sectors.

Labor Policies

The higher pace and improved quality of economic growth have created more and better employment in the last six years, leading to significant decline in unemployment rate and improved quality of the employment generated. Unemployment rate reached its lowest in the past decade in 2016. At the same time, quality of employment improved in the past six years, as majority of workers found remunerative work and fulltime employment, thus increasing the overall mean hours of work.

Despite these achievements, significant employment challenges remain. The country needs to address underemployment, youth unemployment, low labor market participation of women, and inadequate jobs leading to out-migration. There is also a need to increase investments in priority sectors to ensure that the labor market can accommodate future entrants.

PDP 2011-2016 unemployment targets were achieved, but the underemployment targets were not. The country has consistently exceeded the PDP 2011-2016 Midterm Update targets for unemployment in the past three years. However, a more serious concern than unemployment is underemployment, as the country has lagged behind in attaining its underemployment targets, except in 2014. The high underemployment rate of the country can be attributed to a considerable segment of laborers and unskilled workers, which makes up one-third of total employment. Moreover, incomes of the employed remain inadequate to lift themselves and their families out of poverty. This encourages workers to seek additional hours of work.

Underemployment problem is significant in all regions and prevalent in the agriculture sector. In most regions, underemployment rates are higher than unemployment rates, and is most prevalent in the agriculture sector. This is partly due to seasonality of work (for one-fifth of agricultural workers), part-time work engagement (two-thirds do not work full time), and the low productivity and low wages in agriculture.

Youth unemployment is important but the youth who are neither studying nor employed are a more critical focus for intervention. Unemployment rate among the 15-24 year olds is more than twice the overall unemployment rate and triple the unemployment rate among the 25-54 year

[18] An estimated 20,000 to 25,000 college faculty were expected to be displaced due to the implementation of the SHS. Actual data compiled by DOLE showed 296 displaced HEI personnel. Meanwhile, 3,025 faculty from HEIs were hired for SHS with 925 having availed of the priority lane.

olds. Looking deeper, as of April-October 2016, the share of youth who are neither in education nor in employment in the total young working population reached 22.1 percent, implying that around 4.4 million young Filipinos are underutilized with skills not being enhanced either by education, training, or employment. Additionally, school-to-work transition for many young Filipinos is associated with change, waiting, and uncertainty. It takes a high school-leaver four years and a college graduate two years to find a permanent wage job.

Labor force participation of women barely improved throughout the years. Labor force participation of women has improved only slightly over the past 25 years, from about 47 percent in the early 1990s to around 50 percent in more recent years. Beginning 2012, however, it has stagnated at around 50 percent.

Limited employment opportunities force Filipinos to migrate by necessity and not by choice. Many overseas Filipinos (OFs) have been pushed to take on low-skilled jobs abroad. In 2015, 37.8 percent were employed as household workers. Despite the resilience of these low-skilled jobs and being a steady source of employment for many Filipinos, OFs employed in these kinds of jobs remain vulnerable to abuse and exploitation. Regional integration initiatives such as the ASEAN Economic Community and the government's efforts to strengthen ties with other countries such as China and Russia could present opportunities to diversify the destination of OFs.

Labor productivity in the industry and services sectors improved but remained below targets. Labor productivity of the sectors grew by 2.4 percent in 2014 and by 3.6 percent in 2015.[19] These are below the plan targets of 3.9 to 4.7 percent and 4.1 to 5.0 percent, respectively. Over the past six years, labor productivity growth of both sectors was generally slow, with services rising faster than industry. The positive but weak growth in the service sector could be due to the labor shift from agriculture to services, which is observed in the recent period. The transition of workers to the services sector, where self-employment is common and wages are more flexible, resulted to more employment in the low-skill, low-wage category.[20]

The lack of the needed skills (technical and soft), work experience, as well as lack of technological progress and innovation contributed to both sectors' low labor productivity.

Domestic and global developments, such as the K to 12 program and the ASEAN integration, require strengthening the academe-industry linkage to prepare Filipinos for the changing world of work. Though the latest enrolment data underscore the strong preference for the academic track, SHS graduates in the labor market may be absorbed over the long-term. The industry needs to recognize the qualifications of these graduates to ease their transition to work.

The diverse and dynamic working environments that come with further economic integration require 21st century skills among graduates. Over the medium to long term, these skills will enable the country's youth to make informed career decisions and develop life skills necessary to succeed in a competitive workplace.

[19] Labor productivity growth in the I&S sectors were computed by dividing the sectors' gross value added by the sectors' employment estimates. Employment estimates used were the average of Apr-Oct 2013-2015 estimates, excluding Leyte.
[20] Asian Development Bank. 2011. *Country Partnership Strategy: Philippines, 2011-2016.* Retrieved from https://www.adb.org/sites/default/files/linked-documents/cps-phi-2011-2016-ea.pdf

Strategic Framework

The Philippine Development Plan 2017-2022 aims to reduce inequalities in human development outcomes. In particular, it aims to improve nutrition and health for all, ensure lifelong learning opportunities for all, and increase the income-earning ability of Filipinos.

Targets

The following tables show the indicators and corresponding targets for improving human development outcomes.

Table 10.4 Plan Targets to Improve Nutrition and Health (Core Indicators[21])

INDICATORS	BASELINE (2015)	END OF PLAN TARGET
Life expectancy at birth	72.77 (2015-2020)	75 (2020-2025)
Male	69.63	71.26
Female	75.91	77.54
Total Fertility Rate	3.1	2.1
Maternal mortality ratio per 100,000 live births	114 [22]	90
Neonatal mortality rate per 1,000 live births	13 (2013)	10
Infant mortality rate per 1,000 live births	23 (2013)	15
Under-5 mortality rate per 1,000 live births	27 (2013)	22
Premature mortality attributed to cardiovascular disease, cancer, diabetes, and chronic respiratory diseases [23]		
Proportion of households with per capita intake below 100% dietary energy requirement	68.3	61.1
Prevalence of stunting among children under 5 (%)	33.4	21.4
Tuberculosis incidence per 100,000 population	322	225
Malaria prevalence per 100,000 population	7.74	<1
Number of new HIV infections (newly diagnosed cases/year)	7,831	Reverse trend
Modern Contraceptive Prevalence Rate (%)	37.6	65 (2013)

Table 10.5 Plan Targets to Ensure Lifelong Learning Opportunities for All (Core Indicators)

INDICATORS [24]	BASELINE (2015)	END OF PLAN TARGET
Mean Years of Schooling	8.9 (2014)	11.3
Functional Literacy Rate*	90.3 (2013)	
Net Enrolment Rate		
Kindergarten	74.65	95.00
Elementary	91.05	95.00
Junior High School	68.15	75.44
Completion Rate		
Elementary	83.43	90.00
Junior High School	73.97	78.48
Proportion of students performing at Moving towards mastery, closely approximating mastery and mastered increased [25]		
Elementary	63.93	74.39
Junior High School	14.37	20.00
Proportion of students at low mastery reduced from 14% to 10%		
Junior High School	14.88	10.00
Percentage of students awarded scholarships, grants, and other financial assistance (%)	5	10
Percentage of tertiary graduates in science, engineering, manufacturing and construction	26	40
Percentage of ETEEAP graduates	50	60
Increased government expenditure for higher education research, development, and innovation	0.17% of GDP	0.5% of GDP
Increased number of patents, licenses, and royalties issued to HEIs	231	500
Increased number of researchers and scientists	841	2,600
Number of curricula and programs developed / revised based on multi-disciplinal platforms that foster 21st century competencies	72	100
Increased number of HEIs engaged in local and global partnerships and collaborations	44	100
Increased number of graduate education graduates (MA/PhD) engaged in original research of creative work	6,500	10,000
Increased number of innovation hubs established within HEIs	81	150
Certification rate of TVET graduatesa	91.3 (2016)	

[21] Complete list of indicators is found in the accompanying Results Matrix document.
[22] WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division Estimate
[23] Baseline and targets will be identified in the accompanying Results Matrix

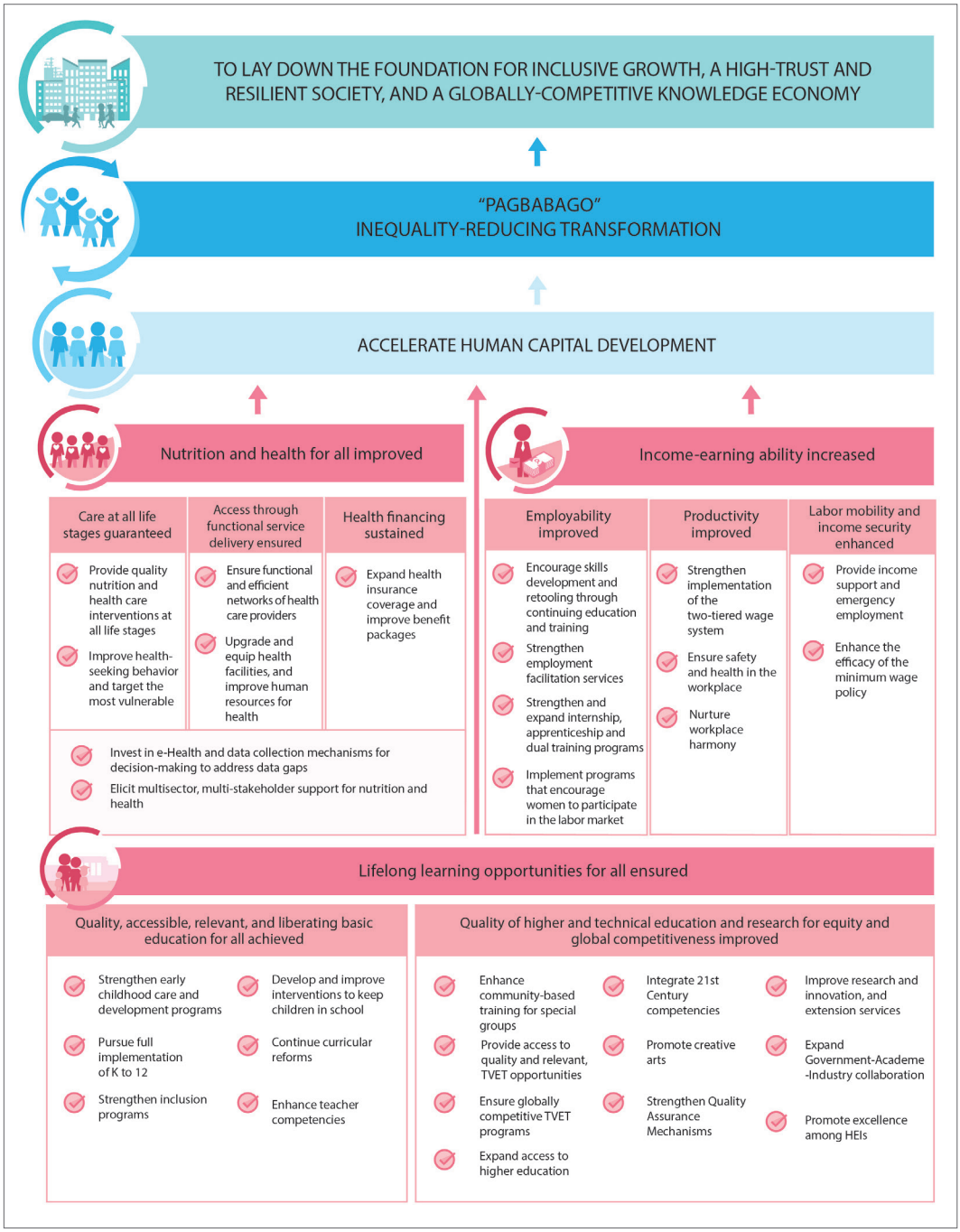
Table 10.6 Plan Targets to Increase Income Earning Ability (Core Indicators)

INDICATORS	BASELINE (2015)	END OF PLAN TARGET
Decreased percentage of adult NEET	tbd	
Decreased percentage of youth NEETa* (%)	22.7 (2015)	15-18
Decreased duration of school-to-workb transition of college graduate	2 years (2008 ADB Household Surveyc)	6-9 months
Decreased duration of school-to-workb transition of high school graduate	4 years (2008 ADB Household Surveyc)	9-12 months
Decreased percentage of discouraged workers (%)	12.5 (2014)	10
Increased number of HE graduates engaged in job collaboration	440,000	700,000
Percentage of female with advanced degrees employed (%)	12.7	20
Increased labor force participation rate of women (%)	49.3	51.3
Labor productivity in industry sector increased (%)	-4.2	3.0-4.0
Labor productivity in service sector increased (%)	3.1	4.0-5.0
Frequency rate of fatal and non-fatal occupational injuries decreased*	2.03 (2013)	
Percentage of unemployed covered by unemployment insurance	tbd	

[a]Baseline and target are only for not in education and employment (NEE). The indicator for not in education, employment and training (NEET) is for development in the Labor Force Survey.
[b]Work is defined as permanent wage job.
[c] Based on an ADB Study: Bird, K. 2012. Are Filipino Youth off to a Good Start? Youth Labor Market Experience in the Philippines. ADB: Manila
Note: (*) are indicators based on the SDGs

[24] Output indicators, SDG indicators (*), and other disaggregated data (e.g., sex, industry/sector) will be reflected in the Results Matrix Document. For basic education, baseline and targets for senior high school will be reflected in the Midterm Update.
[25] Mastery level categorization – mastered (96-100%), closely approximating mastery (86-95%), moving towards mastery (66-85%), average mastery (35-65%), low mastery (15-34%), very low mastery (5-14%), absolutely no mastery (0-4%)

Figure 10.1 Strategic Framework for Accelerating Human Capital Development



Strategies

To improve nutrition and health for all, the PDP seeks to guarantee care at all life stages, ensure access to functional service delivery network, and sustain financing for health. To ensure lifelong learning opportunities, the PDP seeks to achieve quality, accessible, relevant, and liberating basic education for all; and improve the quality of higher and technical education and research for equity and global competitiveness. Moreover, to increase the income-earning ability of Filipinos, the Plan seeks to improve employability and productivity and enhance labor mobility and income security.

To achieve the targets, the following strategies will be pursued:

Sector Outcome A: Nutrition and health for all improved

Nutrition and health for all will be improved as the government (a) guarantees services that provide care at all life stages; (b) ensures the accessibility of these services in functional service delivery networks; and (c) sustainably finances these services through universal health insurance. These will be supported through increased investments in the sector, which are expected to redound to higher life expectancy of Filipinos.

Subsector Outcome 1: Care at all life stages guaranteed

Provide quality nutrition and health care interventions at all life stages. Better nutrition and health outcomes are expected by providing care and services to the well and the sick at all life stages, from infancy to old age. Specifically, during pregnancy, attention will be on pre-natal care and safe delivery. For newborns and infants, essential *intra-partum* newborn care, exclusive breastfeeding, complementary feeding, food and micronutrient supplementation, and immunization will be given for the first 1,000 days of life. All other services from adolescence to adulthood will be provided, including sexual and reproductive health (SRH), adolescent health, and health services for older persons to improve their quality of life.

Accelerating the full implementation of the RPRH Law will be pursued to ensure universal access to quality SRH services. This is to enable the exercise of reproductive rights, including determining the desired family size. Key strategies will focus on eliminating unmet need for family planning methods and reducing the incidence of teenage pregnancy through collaborative interventions. *See Chapter 13.*

There will be focus on specific communicable diseases (HIV/AIDS, tuberculosis, and malaria) and on the elimination of diseases such as dengue, leptospirosis, Ebola and Zika. Non-communicable diseases such as cancer, diabetes, and heart disease will be addressed along with their risk factors. Injuries, substance abuse, and mental illness will be addressed through interventions, such as advocacy to prevent injuries, treatment and rehabilitation of drug dependents, and psycho-social interventions. Attention will also be given to pandemics and travel medicine as well as the health consequences of climate change and disasters. Addressing malnutrition in all its forms will likewise be given importance, particularly in strengthening the school health and nutrition program.

Improve health-seeking behavior and target the most vulnerable. The population's health-seeking behavior will be improved. Health promotion for all interventions will be pursued to increase awareness of health entitlements, thus resulting in wider participation of people. To ensure equity in access, vulnerable populations, the poor, PWDs, indigenous peoples, and older persons will be prioritized in the provision of

services. Specific and targeted interventions will also be provided, such as annual health visits for the vulnerable populations.

Subsector Outcome 2: Access through functional service delivery networks ensured

Ensure functional and efficient networks of health care providers. Service delivery networks (SDNs) will be expanded and strengthened to allow more people to reach health facilities and avail of needed services such as nutrition, reproductive health, drug abuse management and rehabilitation, and services related to health emergency response. The SDNs will facilitate access to all levels of care, specifically, gatekeeping and continuum of patient-friendly services from primary care level up to the specialty centers. These services will be client-centered, gender responsive, culturally sensitive, and compliant with clinical standards. The SDNs will be responsive and resilient in times of emergencies and disasters. Private provider participation will be harnessed and coordinated when planning SDNs, implementing interventions, and securing supply-side investments. Delivery of services will also be made more accessible with the use of information and communications technology. In addition, a redress mechanism will be set up to improve the responsiveness of the system.

Upgrade and equip health facilities and improve human resources for health (HRH). Additional resources will be provided for health facility enhancement, HRH improvement (quality, quantity, and distribution), and health supplies (vaccines, family planning commodities, and medicines). Hospitals will be equipped with multi-specialty training capabilities and reference laboratories. Health facilities with maternity and newborn services will be upgraded to fully promote and support rooming-in, breastfeeding, and other mother-baby friendly practices.

The health profession will be more responsive to local and global needs and will focus on primary and preventive health care. Availability of HRH in unserved and underserved areas, including GIDAs, will be ensured. HRH compensation package will be reviewed so that those serving in ARMM, IP areas, and GIDAs will have the highest pay. Pre- and in-service trainings will be strengthened toward client responsiveness by integrating gender and culture perspectives. Incentives will also be given to health workers, including Barangay Nutrition Scholars (BNS) and Barangay Population Volunteers to ensure the continuous service delivery and advocacy for nutrition and RH. Scholarships will continue to be provided to those who will enter the health profession.

Subsector Outcome 3: Health financing sustained

Expand health insurance coverage and improve benefit packages. The NHIP will continue to provide financial risk protection to ensure that every Filipino will be a PhilHealth member. New benefits packages will be developed and existing ones may be expanded to lower the members' out-of-pocket costs. *See Chapter 11.*

The following activities will be undertaken to support the attainment of the subsector outcomes:

Invest in eHealth and data collection mechanisms for decision making to address data gaps. Timeliness, quality, and disaggregation of data will be improved and the monitoring and evaluation systems will be strengthened for better decision making. Administrative data collection systems, such as local civil registration and vital statistics, will be strengthened to complement national surveys. Collection and reporting in provinces, cities, and municipalities will be intensified to ensure the responsiveness of interventions and improve accountability.

Information systems will be streamlined. The use of electronic medical records (clinical and administrative) in all health facilities will become a requirement for licensing and contracting of health facilities and drug outlets. A performance monitoring unit will be established to track the progress of reforms and medical audits, and to oversee third-party monitoring. Health research will also be pursued, particularly in the areas of technology development, financing, service delivery, and socioeconomic and environmental concerns.

Elicit multisector, multi-stakeholder support for nutrition and health. The government will ensure that other social determinants of nutrition and health will be addressed through the adoption of a "Nutrition and Health in All Policies" agenda. The LGUs' role in nutrition and health services delivery, such as advancing local health policies, providing family planning services and commodities, and reducing disaster risks will also be supported. Development partners will be tapped, if necessary, to provide official development assistance (ODA) aligned with the nutrition and health agenda. Possible areas of assistance include service delivery in nutrition, reproductive health, and drug management and rehabilitation. Civil society organizations (CSOs), including volunteers, will be mobilized to participate in budget development, service delivery, and monitoring and evaluation through their involvement in local development councils and other special bodies.

Sector Outcome B: Lifelong learning opportunities for all ensured

Lifelong learning will be pursued to attain both personal and national goals. Filipinos will be equipped with 21st century skills to engage in meaningful and rewarding careers in today's changing world of work. Lifelong learning will also contribute to the development and growth of agriculture, industry, and services in the country. To yield greater equity in human development outcomes, education will be made accessible to vulnerable groups and those not reached by formal education.

Subsector Outcome 1: Quality, accessible, relevant and liberating basic education for all achieved

Strengthen programs for early childhood care and development (ECCD) in order to adequately prepare for basic education. The first eight years of a child's life is critical to the development of the child's physical, cognitive, emotional, and social well-being; thus, quality early childhood programs will be made available to families. This entails strengthening the capacities of child development service providers, implementing a developmentally-appropriate curriculum, and building a competent workforce. To ensure that child development centers are following standards and providing appropriate services, the following need to be approved and implemented: (a) the revised accreditation processes and tools for CDCs; and (b) the early childhood developmental delays and disability detection, intervention, and referral system. Coordination among agencies is needed to ensure that ECCD-related services and initiatives are harmonized.

Pursue the full implementation of K to 12. The sub-strategies to ensure the success of K to 12 are: (a) timely delivery of adequate education inputs such as school infrastructure, quality learning materials including assistive devices, and ICT equipment; (b) hiring and professional development of teachers; c) effective and transparent monitoring and evaluation system; d) public financial management reforms to ensure availability and timely delivery of infrastructure and learning resources for formal and non-formal

education; and e) a financial management information system to track the status of budget releases and facilitate timely interventions when problems arise.

Strengthen inclusion programs. Improving the mechanisms for mapping, profiling, and tracking of learners and school-aged children will ensure that learners with special needs, indigenous peoples, and out-of-school children and youth are provided with the appropriate educational interventions. Intensifying and expanding the ALS will enable those not reached by the formal system to complete basic education or acquire lifelong learning. Education inputs should also focus on areas with poor education performance – targeting the needs of hard-to-reach and vulnerable learners (such as street children, indigenous peoples, PWDs, children-in-conflict with the law [CICL], and children in conflict areas).

Develop and improve interventions to keep children in school. Providing school-based interventions such as feeding programs, counseling programs, remedial classes, and conducive learning environments can help keep children in school to complete basic education.

Continue curricular reforms. Making the curriculum more gender-responsive and relevant by contextualizing and localizing lessons can help improve achievement rates. The science and technology curriculum will be enhanced to foster innovation and creative imagination. Emphasis will be given to culture and the arts, drug abuse prevention, reproductive health, gender, environment, disaster risk reduction and management, and climate change.

Enhance teacher competencies. Improvement in pre-service teacher education and relevant and regular in-service training on pedagogical approaches and subject matter are needed to improve student learning outcomes. This can be done through a responsive pre-service education curriculum, mentoring, school learning action cells, workshops, organized training, eLearning, and learning visits.

Subsector Outcome 2: Quality of higher and technical education and research for equity and global competitiveness improved[26]

TVET for Equity

Enhance community-based training for special groups. Community-based training will be promoted by identifying and supplying the specific skills requirements of different barangays. It will be area-specific, resource-based, flexible, holistic, and product and service-oriented. It will use the community-driven approach to training delivery, and continuous consultations and collaboration at the grassroots levels with other government agencies. Attention will be given to informal workers, indigenous peoples, farmers, fisherfolk, drug dependents, rebel returnees, women victims of abuse and human trafficking, returning and repatriated OFs, and PWDs so that they can become active participants in the development process.

Provide access to quality and relevant TVET opportunities. Scholarships and linkages with government tech-voc schools and state universities and colleges offering TVET programs will be pursued and strengthened so that they can provide access to a greater number of trainees. Skills development will be done through community- or barangay-based, mobile, and online training. Supportive programs for drug dependents will be conducted. On-site assessment will be done to provide workers, particularly OFs, an opportunity to obtain an NC and improve employment options.

[26] Some indicators for specific strategies are yet to be developed and will be reflected in the Midterm Update when data are already available.

TVET for Global Competitiveness

Ensure globally-competitive TVET programs. To become globally competitive, TVET programs will be benchmarked with international standards, adapt recent technology and innovations, and respond to industry demands. This can be done by: (a) scaling-up of technical education; (b) developing competency standards and training regulations; (c) capability building for centers of excellence; (d) international alignment of Philippine TVET qualifications; (e) strengthening the Philippine Qualifications Framework (PQF); (f) recognizing higher TVET qualifications; (g) expanding public-private partnership, and (h) strengthening stakeholder collaboration, including linkages with foreign skills training institutions.

Higher education as a force for social and cultural transformation

The role of higher education in spurring social change and cultural transformation is articulated in the mission, vision, and programs of many Philippine higher education institutions that instill the values of nationhood and responsible citizenship. These institutions also enjoin students and faculty to develop intellectual tools and practical skills for productive social service.

Expand access to higher education. Government will ensure the full implementation of the Unified Financial Assistance System for Tertiary Education (UniFAST) Act (RA 10687) and develop a policy to rationalize tuition and school fees. It will promote the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP), Ladderized Education Program (LEP), and Distance Education to provide working students and school leavers the opportunity to earn a degree. Higher education programs will be enhanced by emphasizing CHED Memorandum Order No. 20, s. 2013: General Education Curriculum: Holistic Understandings, Intellectual and Civic Competencies.

Integrate 21st century competencies. Government will steer higher education programs and curricula to produce graduates who can demonstrate 21st century competencies to lead, compete, and excel in the global knowledge economy.

Promote the creative arts.[27] Courses and curricula for developing artistic and cultural workers will be developed and promoted to provide citizens with opportunities to be absorbed in culture industries (e.g. media, tourism, performing arts).

Higher education as accelerator of innovation and inclusive economic prosperity

Just as important is higher education's mission in economic development, job generation, and wealth creation. In an era of remarkable speed and dynamism in the knowledge-driven global economy, Philippine higher education should be positioned as a major driver of economic competitiveness.

In support of these pursuits, government will advocate for purposive investments that: (a) steer career interest towards science, technology, engineering, agri-fisheries and mathematics, which are the building blocks of the knowledge economy; (b) foster a healthy and vibrant relationship with industry as well as small- and medium-scale businesses; (c) accelerate local and global inter-university research collaboration; (d) establish institutional scientific-technological niches and economic centers; and (e) create an innovation ecosystem.

Strengthen Quality Assurance Mechanism. Government will ensure the full implementation of the Outcomes and Typology-based Quality Assurance System.

[27] Advancing creativity and artistic excellence are discussed further in Chapter 7: Promoting Filipino Culture and Values

It will reform Philippine graduate education to serve as an advanced program of study that constitutes a level or stage of academic and scholarly work. The program will be characterized by academic and scholarly rigor; peer interaction and evaluation; and production of original research or creative work. Government will also implement the Philippine Qualifications Framework (PQF) and AQRF and harmonize key academic programs with international standards.

Improve research, innovation[28], and extension services. Government will build a robust national ecosystem for knowledge production and innovation, which is critical for the country's engagement in the knowledge-based global economy. It will invest in: (a) improving the research capabilities of college and university faculty, research staff, and graduate students; (b) building the capital and institutional infrastructure needed for knowledge production and innovation; and (c) building up, retraining, and retaining a sustainable stream of new researchers. Similarly, government will promote structured partnerships between HEIs and stakeholders in the community, business, and industry. The intent is to integrate "formal" research and innovation efforts with "informal" grassroots knowledge and innovation. Policies and programs will be formulated for the normative and reasonable allocation of hours for teaching and research and for the operationalization of extension as part of applied research engagement.

Expand the collaboration between government, academe, and industry. Government will strengthen linkages with academe and industry in pursuit of leading-edge, commercial-ready innovations. It will devise performance measures, incentives, and rewards for universities to collaborate with industry partners and to allow industries to recommend innovations in academic programs, curriculum or delivery modalities. It will accelerate global inter-university research collaborations, and establish institutional scientific-technological niches and innovation and economic centers.

Promote excellence among HEIs. Performance metrics that will measure excellence, such as research grant revenues, patents, publications and citations, and graduate employment rate will be developed. The government will determine a realistic target of costing and producing quality PhDs per year in the next five to seven years, considering the target of 2,700 PhDs per year in the next ten years, and allocating the necessary funds to support graduate students. Diversity in faculty roster, particularly in engaging international talents will be increased. Appropriate budgetary provisions to optimize the delivery of quality instruction as well as the quality and quantity of research and innovations will be pursued.

The three education agencies will ensure greater collaboration among themselves and with other government agencies, LGUs, and NGOs, in pursuit of education goals. Among the areas of collaboration will be the full implementation of the PQF and mobilization of stakeholders for its further substantiation.

Sector Outcome C: Income-earning ability increased

This chapter focuses on labor supply strategies that aim to raise the quality of human resources through a holistic approach that considers all key stages of employment. In addition, strategies that enhance the functioning of the labor market

[28] The role of HEIs in research and innovation are discussed further in Chapter 14 Leveraging Science, Technology, and Innovation

are included. Together, these are expected to translate to the increased income-earning ability of Filipinos.

Subsector Outcome 1: Employability improved

Ensuring the employability of labor entrants is important. This will be accomplished through the following strategies:

Encourage skills development and retooling through continuing education and training. Workers may improve their employability through skills enhancement. Providing opportunities for skills development and re-tooling is critical in addressing the problem of the youth who are not in education, employment, and training (NEET). For prospective and current OFs, properly identifying demand and upgrading their skills to meet the demand, will help them be employed in more stable and higher-paying jobs. Improvement in access to advanced degrees and trainings on topics such as entrepreneurship and proficiency in different languages, including through distance or online learning, will be promoted. The PQF should not only ease school-to-work transition but should also guide professionals, employees, and employers in skills upgrading and professional development.

Strengthen employment facilitation services. Assistance to workers entering the labor market, especially first-timers, will be strengthened. Career advocacy, coaching, and counseling will be enhanced, both for those seeking employment locally or overseas. Online services for OFs will also be included. In addition, regulations will be reviewed with the aim of facilitating the eventual reintegration of OFs in the domestic economy. Local government units (LGUs) need to be capacitated in responding to the challenges in their respective areas. In particular, public employment service offices (PESOs) need to prepare for the needs of senior high school graduates and persons with disabilities, and consider the opportunities beyond their localities.

A dynamic and competitive labor market requires high-quality and easily-accessible labor market information (LMI) for job search. A public system such as PhilJobNet--the government's web-based LMI, job-search, matching and referral portal--plays a significant role in providing Filipinos with free access to labor market information. PhilJobNet will be enhanced to: (a) meet the LMI needs of vulnerable groups of workers; and (b) serve as the labor market information portal of the Philippine government, capable of housing the critical supply and demand database systems. To ensure the availability of labor requirements for the expected surge in demand from public works projects, the following must be accessible to communities: labor market information, skills registration, employment facilitation services, training and monitoring.

Strengthen and expand internship, apprenticeship and dual-training programs that facilitate school-to-work transition. Current programs of the government that can be strengthened are the: (a) Government Internship Program (GIP) for those who want to pursue public service; (b) JobStart Program to enhance the employability of "at-risk" youth; and (c) apprenticeship, learnership and dual-training programs. Employer or enterprise-led skills training will be explored. For the work placements of job seekers, particularly the long-term unemployed, the government will support skills training networks across a wide range of industries, sectors and geographical areas.

Implement programs that encourage women to participate in the labor market. Strategies to increase labor participation of women include: (a) fully implementing the RPRH Law; (b) improving access and

affordability of child care services; (c) formulating policies that promote work-life balance; (d) providing re-training services for women returning to the workforce; (e) enhancing maternal and paternal benefits; and (f) improving access of women to entrepreneurial opportunities. *See Chapter 13.*

In addition, the data essential to understand the full range of work carried out by women, including unpaid domestic and care work, will also be developed.

Subsector Outcome 2: Productivity improved

Strengthen the implementation of the two-tiered wage system. The two-tiered wage system will be continuously implemented as an approach to minimum wage-setting and as a strategy to tighten the link between wage and productivity growth. Workers and enterprises will be encouraged and capacitated to formulate productivity-based incentive schemes. As mandatory minimum wages will continue to be set, enterprises will also be encouraged to adopt productivity-based pay schemes that will accelerate productivity growth and ensure commensurate growth in wages.

Ensure safety and health in the workplace. Sound, gender-responsive occupational safety and health (OSH) practices will be ensured through vigorous enforcement of existing regulations. Implementation of enhanced workplace emergency plans and disaster risk reduction programs will be encouraged. There is also a need to intensify workforce-focused OSH programs, such as information campaigns and industrial dialogues that will promote and cultivate a culture of OSH. Integration of OSH in the local health development plans as well as a comprehensive health and safety program for government workers will likewise be pursued. In terms of education, integration of OSH in the secondary and tertiary education curriculum will be advocated.

Nurture workplace harmony. Improvements in labor-management relations will be nurtured. Venues for social dialogue will be promoted by strengthening institutional mechanisms for social negotiations, including collective bargaining.

Subsector Outcome 3: Labor mobility and income security enhanced

Provide income support and emergency employment. Better social protection, particularly through income security, will be pursued through the introduction of an unemployment protection system, possibly in the form of unemployment insurance. At the same time, emergency employment programs such as the Community-based Employment Program (CBEP) will be enhanced to provide additional income opportunities to seasonal workers or long-term unemployed during lean or off-season periods.

Enhance the efficacy of the minimum wage policy. Existing wage gaps across industries or sectors, gender and geographic areas can be addressed through labor market policies and institutions that directly affect the distribution of wages, such as through minimum wages and collective bargaining. The implementation of the current minimum wage policy should be adjusted to enhance inclusivity. Efforts to simplify the process, reduce the number of minimum wage rates per region, limit potential exclusions and exemptions from coverage, and encourage parties to use productivity and performance as means to further increasing workers' income will be pursued.

Legislative Agenda

To complement and support the actions of the executive branch, the following legislations will be required:

Table 10.7 Legislative Agenda

LEGISLATIVE AGENDA	RATIONALE
Sector Outcome A: Nutrition And Health For All Improved	
Sub-Sector Outcome: Care at all life stages guaranteed	
Increasing Taxes on Sugar-Sweetened Beverages and Junk Food	This aims to lower consumption of sugar-sweetened beverages and junk food through higher taxes. It will be a cost-effective intervention to the increasing incidence of lifestyle-related non-communicable diseases (NCDs) by addressing risk factors.
Amendment to the Philippine HIV-AIDS Law	This seeks to strengthen the current HIV Law to make it more responsive and relevant to the current epidemic. It will restructure the legal framework to harmonize evidence-informed strategies and approaches on the prevention, treatment, care, and support for HIV and AIDS patients and MARPs with government's response
Local Population Development Act	This will provide for the establishment and operation of population offices to ensure the effective implementation of population management strategies and measures at the local level.
Prevention of Adolescent Pregnancy Act	This act will facilitate the development of a National Program of Action and Investment Plan for the prevention of teenage pregnancy. The program of action will serve as the national framework for inter-agency and inter-sectoral collaboration at all levels to address the various health, cultural, socio-economic and institutional determinants of teenage pregnancy.
Subsector Outcome: Access to functional service delivery network ensured	
National Mental Health Care Delivery System	The bill aims to establish the legal framework to provide care and services to those with mental illness. It will consolidate mental health provisions in existing laws, namely the Revised Penal Code, the Magna Carta for Disabled Persons, and the Family Code.
Amendment of the law on the Barangay Nutrition Scholar (BNS) Program	This is to upgrade incentives and benefits and ensure security of tenure of BNS. This is essential in the provision of continuous frontline nutrition services to the community. This law would ensure that trained and experienced BNS are carried over by succeeding political administrations.
Sector Outcome B: Lifelong learning opportunities for all ensured	
Subsector Outcome: Quality, accessible, relevant and liberating basic education for all achieved	
Magna Carta for Day Care Workers	This bill proposes that day care workers be provided with proper compensation and benefits.
Subsector Outcome: Quality of higher and technical education and research improved for equity and global competitiveness improved	
Philippine Qualifications Framework Bill	The bill envisions a quality-assured national system for the development, recognition, and award of qualifications based on the standards of knowledge, skills, and attitude acquired by learners and workers in the country. It aims to institutionalize the PQF to encourage lifelong learning of individuals, provide employers specific training standards and qualifications that are aligned to industry standards, ensure the training and educational institutions adhere to specific standards and are accountable for achieving the same, and provide the government with common taxonomy and typology of qualifications as bases for granting approvals to stakeholders.
Apprenticeship Bill	The bill will establish a reformed apprenticeship program that will ensure the availability of qualified manpower in the field of critical and in-demand technical skills through the active participation of all workers, enterprises, government agencies, and non-government organizations concerned.
Amendment to the Dual Training System Act of 1994	There is a need to review RA 7686 in order to entice more companies to engage in DTS. The current law stipulates the responsibilities of the trainees and establishments, and incentives for participating establishments.

LEGISLATIVE AGENDA	RATIONALE
Sector Outcome C: Income-earning ability increased	
Subsector Outcome: Employability improved	
100-Day Maternity Leave Act	This will institutionalize a mechanism to expand the maternity leave period of women workers. This will provide ample time for mothers to regain health and overall wellness as well as assume maternal roles before resuming paid work. (An extended paternity leave is also proposed to allow fathers to participate in child-rearing.)
Subsector Outcome: Productivity improved	
Productivity Incentive Bill	In order to encourage enterprises to adopt productivity improvement and gainsharing schemes, RA 6971 or the Productivity Incentives Act should be amended to liberalize its restrictive provisions. These include the basis for computing baseline productivity data, the manner and frequency of distributing productivity-based bonuses, and the sharing scheme. Workers and enterprises must be allowed to design their own productivity incentive programs depending on the growth requirements of the enterprise.
Subsector Outcome: Labor mobility and income security enhanced	
Unemployment Insurance	This seeks to address income insecurity of displaced workers. However, at present, there is no unemployment insurance provided to private sector employees. For a more efficient system that provides incentive to reentry into the labor market, unemployment insurance must be linked to active labor market programs such as employment facilitation, skills training, and livelihood. The rationale for government intervention must be to facilitate re-employment of the unemployed, upgrade skills for better employability, provide entrepreneurial opportunities, and protect the unemployed and their families against temporary loss of employment and income.

11 Reducing Vulnerability of Individuals and Families

Chapter 11

Reducing Vulnerability of Individuals and Families

People face various types of risks that may bring hardships and temporary setbacks or prolonged crises. These risks are associated with global or domestic economic instability, weather disturbances, health-related shocks, political disruptions, or other unexpected events that cause losses in income or assets. Some of these risks can be prevented and managed but others are unavoidable.

The Philippine Development Plan (PDP) 2017-2022 aims to enable individuals and families to deal and cope with risks. This chapter discusses strategies to reduce vulnerabilities by decreasing people's exposure to risks and increasing their adaptive capacities. It describes a universal and transformative social protection program for all Filipinos that will build up socioeconomic resilience.

Assessment and Challenges

Poverty incidence decreased from 26.3 percent in 2009 to an estimated 21.6 percent in 2015. The decline could have been more pronounced were it not for the extreme natural and human-induced shocks like super typhoon Yolanda, the Bohol earthquake, the Zamboanga siege, and El Niño, to name a few. These disasters, in addition to sudden illnesses and other shocks, are the most common reasons that even non-poor individuals fall into poverty and the poor find it hard to move out and stay out of poverty. This points to the importance of a social protection program that builds the socioeconomic resilience of the poor and those who recently graduated from poverty.

Risk Factors

To determine appropriate interventions, a social protection program has to be based on a systematic understanding of the risk factors that may be present in some groups but not in others, or may affect people differently.

Inherent vulnerability. Certain individuals and groups have inherent vulnerabilities. These are the poor and transient poor, children, women, persons with disabilities (PWDs), indigenous peoples, overseas Filipinos (OFs) and their families, and older persons. Even non-vulnerable groups also face economic risks such as low and irregular incomes, and financial and economic crises. Other risks are brought about by environmental and natural hazards, and governance and political risks.

Children. In the Philippines, a child is a "person below 18 years of age, or a person over 18 years of age but is unable to fully care for him/herself or protect himself/herself from abuse, neglect, cruelty, exploitation, or discrimination because of a physical or mental disability or condition."[1] Often characterized by their dependence on adults, children are one of the most

[1] RA 9523

vulnerable sectors in society particularly during their first 1,000 days and through their early formative years. The preliminary results of the 2015 National Baseline Study on Violence Against Children (NBS VAC) showed that: (a) two of three children reported to have experienced any form of physical violence in various settings; (b) three of five children reported to have experienced some form of psychological violence in any setting; and (c) one of four children reportedly suffered from some form of sexual violence in any setting.

Children are also among the poorest members of society. The 2012 basic sector data from the Philippine Statistics Authority (PSA) noted that 35.2 percent of Filipino children are poor. They are also vulnerable to continuing poverty and the economic shocks rendered by displacement, destruction to agriculture and properties, and lack of livelihood opportunities owing to major typhoons that devastated the country, foremost was super typhoon Yolanda (Haiyan).

Poverty also pushes a lot of children to work. In 2011, the number of working children was estimated at 3.3 million, of which 2.1 million were engaged in child labor. A huge chunk (97%) of them worked under hazardous labor conditions.

Women. Women face multiple and intersecting forms of discrimination such as women in poverty, women with disabilities, indigenous and Muslim women, women living in geographically inaccessible areas, and lesbian, bisexual, and transgender women. In fact, women have a higher poverty incidence than the general population in 2012 which was estimated at 25.6 percent. Societal norms impose additional risks as there is unequal power relationship between women and men.

Persons with Disabilities (PWDs). Disability is closely linked to poverty as one may cause the other. The poor may experience bad living and working conditions, which increase the risk of acquiring disability, and their exclusion and marginalization may reduce their economic productivity[2]. Many PWDs become vulnerable to physical and psychological violence because of their disability. Disadvantages include lack of: (a) data on PWDs; (b) physical accessibility in schools and training facilities, government offices, public transportation, and government shelter and facilities; and (c) disability-support services to access information, communication and technology including personal assistance and sign language interpretation. Also, there are still individuals who hold limited and, sometimes, negative views toward disability and PWDs.

Indigenous Peoples. The National Commission on Indigenous Peoples (NCIP) says that there are 110 indigenous peoples groups in the Philippines numbering around 14 million persons in 2014, or about 15 percent of the total Philippine population of 92 million. The Indigenous Cultural Communities (ICCs) or indigenous peoples originally occupied more or less 13 million hectares, or approximately 45 percent of the total national land territory of about 30 million hectares.

Indigenous peoples are among the disadvantaged sectors identified under Republic Act 8425[3] because of their vulnerability to exploitation and discrimination[4]. Extractive activities (i.e., mining and logging), "development

[2] Mitra, S., Posarac, A., & Vick, B. 2011. *Disability and Poverty in Developing Countries: A Snapshot from the World Health Survey.* World Bank SP Discussion Paper 1109.
Schelzig, K. (2005). Poverty in the Philippines: Income, assets and access. Asian Development Bank: Philippines.
World Bank. *Poverty and Disability*. Retrieved from http://go.worldbank.org/IMVL0SHUT0
[3] Also known as "Social Reform and Poverty Alleviation Act"
[4] National Statistical Coordination Board. 2005.

Table 11.1 Precarious Employment in Establishments, 2014 (in 000 except percent)

SECTOR	CASUAL	SEASONAL	CONTRACTUAL OR PROJECT-BASED	TOTAL PRECARIOUS EMPLOYMENT	% OF TOTAL EMPLOYMENT
ALL SECTORS	208	102	672	982	22.0
Agriculture	10	56	32	97	40.6
Industry	87	22	238	347	26.0
Manufacturing	64	17	132	213	21.2
Services	111	25	403	538	18.6

Note: The survey covered establishments employing 20 workers or more.
Source: Philippine Decent Work Country Profile 2016 (forthcoming), citing Philippine Statistics Authority, Integrated Survey on Labor and Employment

work" (e.g., hydroelectric dams), in-migration, territorial control mechanisms (e.g., expropriation of land, imposition of territorial boundaries, and other policies), among others, lead to displacement and place great pressure on the preservation of their resources and way of life[5].

Older persons. In 2015, the estimated population of older persons, aged 60 years and above, was around 7.6 million (7.5% of the total population). This is expected to increase to 14.3 million in 2030 (11% of the total population). Older persons are particularly vulnerable since they are physically more fragile and have limited income sources.

Economic risks. Among the economic risks usually faced by the working age population are unemployment; underemployment; low and irregular income; end of source of livelihood; price instability of basic commodities; and financial and economic crises. Discrimination is also a form of economic risk for the vulnerable sectors not given the same opportunity for employment.

Overseas Filipinos (OFs) and their families. More than 10 million Filipinos are based abroad; more than half of them are temporary or irregular migrants.[6] In 2015, newly-hired household service workers made up the largest proportion of deployed overseas Filipino workers (OFWs) at 37.8 percent, up from 28.2 percent in 2010. The OFWs are vulnerable to external shocks such as economic downturns in host countries, protectionist policies like Saudization, which requires Saudi companies and enterprises to fill up their workforce with Saudi nationals up to certain levels, and political instabilities, besides exploitation.

Workers in the informal sector (WIS). Although the definition of "informal sector" is still to be finalized, WIS are generally characterized as being outside the regulatory ambit of government. They could be working in hazardous conditions; they could be receiving substandard pay; they are typically not covered by social security.

Workers in the formal sector. Formal sector workers also face economic risks. A number

[5] Tauli-Corpuz, 2007; Vellema, Borras & Lara, 2011
[6] Temporary overseas Filipinos are those who temporarily stay overseas for employment or non-employment reasons; temporary may be classified in terms of intention to stay. Irregular migrant is an overseas Filipino who is temporarily in another state or territory usually for employment and who is without a valid residence or work permit as required by the receiving state, or whose residence or work permit has expired. This may include "stateless children" with Filipino parent/s.

of them experience income instability due to contractualization[7], retrenchment, and firm closures. In 2014, contractual workers accounted for 22 percent of the total 4.5 million workers employed in establishments with 20 or more employees.

Female workers. One of the development objectives in this PDP is to increase the labor participation of women. Currently, however, there is no legal framework promoting work-life balance that will resolve the dilemmas faced by many women wanting to join the labor force. Female workers face additional vulnerability during pregnancy and maternity. Current maternity leave benefits are not sufficient to ensure that mothers have enough time to rest, recuperate, and regain their full health and adequately breastfeed their newborn. Women face risks such as gender wage gap, persistent occupational gender segregation, violence from their partners and sexual harassment in the workplace. With this, there is a need to empower women to ensure that mechanisms are in place to facilitate the entry of women workers into the formal sector, and promote work-life balance.

Natural hazards and human-induced shocks. Disasters caused by natural hazards are some of the leading causes of damage to property and even deaths. From 2005 to 2015, there were 2,754 natural hazards[8] experienced. While not all of these events were considered catastrophic, about 56 percent of the damage to properties were due to typhoons and storms, 29 percent due to floods, and 6 percent due to landslides.[9] Human-induced shocks are also inevitable and must be prepared for by the government. These may include incidents of house fires, crime, domestic violence, and military encounters.

Governance and political risks. Governance and political risks include effects of policies and regulation, and armed conflict, both here and abroad. Some development policies and regulations (total log ban, closed fishing season, closure of mines) may result in community displacement and termination of the stable income of people.

Social Protection Mechanisms

Social Protection (SP) mechanisms were put in place but these remain inadequate. Programs like conditional cash transfers, health insurance, social security systems, and income and livelihood support, have been existent but have limited coverage and benefits.

Children. To uphold the rights of children and ensure that their basic needs concerning education, healthcare and responsible parenting are met, the government implemented the Pantawid Pamilyang Pilipino Program or Pantawid Pamilya.[10]

There have been a number of programs to eliminate child labor, such as profiling of child laborers, teaching Pantawid Pamilya parents on the rights of the child, advocating for child labor-free barangays and establishments, and providing livelihood assistance to parents of child laborers.

[7] These terms are not found in the Labor Code. "Contractualization" is a loose term for any employment contract whose duration is fixed in the contract. "Endo," or end of contract, is the necessary consequence of the fixed duration. The most common face of the problem is the practice of some employers in hiring different employees under one-time short term contracts, or in re-hiring the same employees through a succession of short-term contracts. Each contract usually lasts for five months, thus the additional coinage "5-5-5" employees. (*Ibid*)

[8] Natural hazards include earthquakes, volcanic activity, landslides, flashfloods, typhoon, tornados, drought, lightning, cave-in, storm surge, soil erosion, etc.

[9] NDRRMC. 2016. Country Disaster Risk Management Status Report. OFDA/CRED 2015

[10] The Pantawid Pamilya is a human development strategy of the national government that provides conditional cash grants to the poor aiming to improve the health, nutrition, and education of children and pregnant women.

All these initiatives were combined into one program called HELP ME, which stands for H-health, E-education and training, L-livelihood, P-prevention, protection and prosecution and ME-monitoring and evaluation. In early 2016, several agencies under the Human Development and Poverty Reduction Cluster - Social Development Committee (HDPRC-SDC) signed a joint memorandum circular (JMC) to implement HELP ME in a convergent manner and cover all working children numbering 3.3 million in 2011.[11]

PWDs. Admittedly, there is limited understanding about the plight of individuals facing discrimination, abuse, exploitation, and bullying because of their attributes. Support services are lacking and government policies and programs are poorly implemented. A number of PWDs are not even aware of the benefits due them. Access to existing services remains a concern for PWDs residing in far-flung communities.

From 2011 to 2016, beneficiaries of the Pantawid Pamilya substantially increased from 2.3 million to almost 4.4 million households. However, the program had limited coverage of vulnerable sectors, especially PWDs, indigenous peoples, and homeless street families *(Table 11.2)*.

Table 11.2 Number of Individuals Served by the Pantawid Pamilya, by Vulnerable Sector

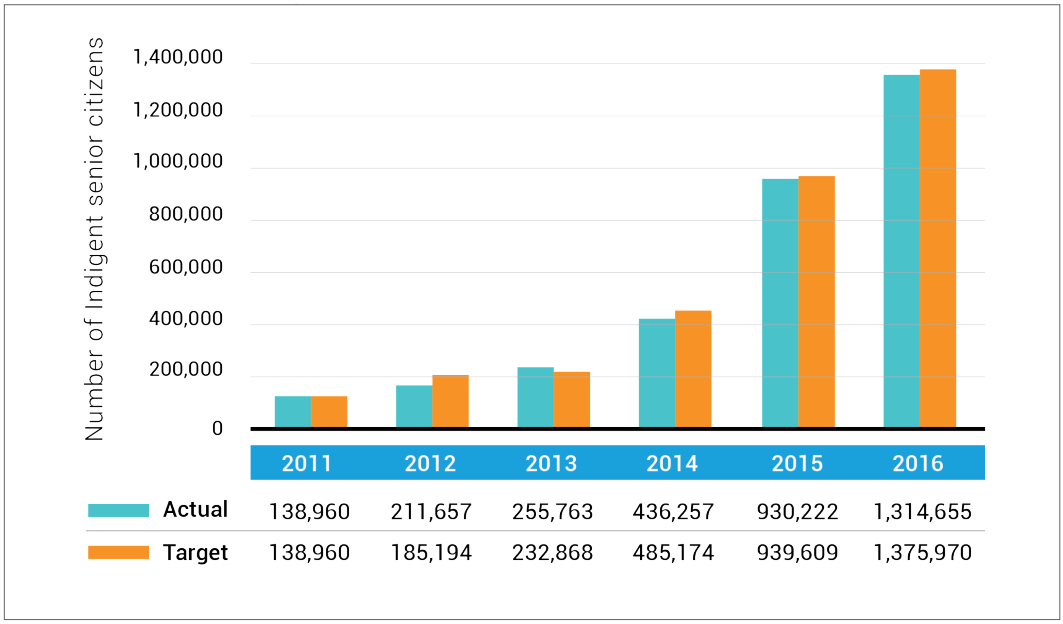
VULNERABLE SECTOR SERVED	NUMBER
Children	
Education*	7,433,894
Health*	3,37,700
Pregnant women*	7,280
Households with PWDs	218,713
Indigenous peoples	572,235
Homeless street families	4,947
Families in need of special protection	49,319

**Data as of Period (August - September 2016)*
Source: DSWD Pantawid Pamilya Information System Data as of 31 December 2016

Older persons. Apart from PhilHealth coverage, indigent senior citizens receive a monthly pension amounting to ₱500. Since 2011, recipients of the Social Pension Program have significantly increased *(Figure 11.1)* due to the expansion of age coverage for indigents. As of December 2016, 1.3 million indigent senior citizens are enrolled in the program comprising 95.6 percent of the target population.

[11] 2011 Survey on Children

Figure 11.1 Indigent Senior Citizens Covered by the Social Pension, 2011-2016



The value of the pension, however, remained at ₱500. But increasing this amount needs to consider the increasing population of senior citizens and the need to ensure that sufficient budget is available to cover the indigent senior citizens.

Restrictive definition to qualify as indigent senior citizen hinders access to the program. Additionally, there is no national government body dedicated to address the issues confronting senior citizens.

Health insurance. The National Health Insurance Program (NHIP) coverage has reached 93 million in 2015 (92% of the total population). Of this, 61 million are the vulnerable (informal economy, indigent, sponsored and senior citizens[12]).

Table 11.3 NHIP Benefciaries per Membership Type

MEMBERSHIP TYPE	PRINCIPAL MEMBERS	DEPENDENTS	TOTAL BENEFICIARIES
Formal Economy	14,000,000	15,000,000	29,000,000
Informal Economy	3,000,000	5,000,000	8,000,000
Indigents	15,000,000	29,000,000	44,000,000
Sponsored	1,000,000	1,000,000	2,000,000
Lifetime members	1,000,000	800,000	1,800,000
Senior Citizens	6,000,000	1,000,000	7,000,000
Total	41,000,000	52,000,000	93,000,000

[12] To cover the ageing population, Republic Act 10645 provides mandatory PhilHealth coverage to all senior citizens.

Persisting issues include gaps in coverage and low enrolment of households in the informal and self-employed sectors.

Another challenge is the need to increase the utilization of health insurance to match coverage expansion. Currently, benefit utilization among Pantawid Pamilya household remains low. This may be due to the lack of awareness of benefits and the inaccessibility of PhilHealth-accredited facilities. In addition, high cost of health and medical care can drive the households to reduce their consumption of other basic goods or forgo care. Out-of-pocket (OOP) costs still comprise 55.8 percent[13] of total cost, implying that the support value of NHIP is low and that the No-Balance Billing policy for indigents has minimal impact. Medicines account for the highest share of OOP among all components of total health expenditures.

Social security systems for formal and informal workers. Institutions such as the Social Security System (SSS) and Government Service Insurance System (GSIS) provide an insurance for its members and beneficiaries against the hazards of old age, disability, and death. For female beneficiaries, SSS and GSIS provide sickness and maternity benefits.

GSIS pensioners receive at least ₱5,000 per month while SSS pensioners receive at least ₱2,200 per month.

SSS covers employers, regular employed and regular self-employed members, self-employed farmers and fisherfolk, agricultural workers, OFWs, non-working spouses, househelpers, and self-employed individuals with a net income of at least ₱1,000 per month through the expanded self-employed program.

There is a need to put in place programs that protect workers from high economic risks. These include an unemployment insurance mechanism coupled with aggressive employment facilitation. Informal sector workers need to be enrolled in social security programs even as they are being transitioned to the formal sector.

Under the principle "once a member, always a member," SSS implemented the policy of allowing its members to submit voluntary contributions, regardless of employment status. Recognizing the growing role of the informal sector in the economy, SSS redefined its strategies to reach out to the members of the sector. However, despite these initiatives, enrolment rate remains low among those in the informal sector *(see Table 11.4)*.

Table 11.4 SSS Coverage by Type of Member, 2011-2015 (in thousands)

TYPE OF MEMBER	2011	2012	2013	2014	2015
Employers	889	602	912	921	9,148
Registered Members					
Employed	20,027	21,946	22,634	23,463	24,364
Self-Employed	5,872	3,803	4,033	4,327	4,581
Voluntary	2,632	2,891	3,131	3,325	3,556
OFW*	738	817	923	1,028	1,120
Total Registered Members	29,269	29,457	30,721	32,143	33,621

Source: SSS-CPPD Management Reports
** OFW Coverage is voluntary*

[13] Philippine National Health Accounts (PNHA). 2014

In addition to insurance networks, the Employees' Compensation Program (ECP) provides for income-replacement benefits and rehabilitation services in case of work-related injuries, diseases, and death.

OFs and their families. The Overseas Workers Welfare Administration (OWWA) provides social protection programs for OFWs covering disability, death and burial benefits, education and livelihood assistance program, and relief assistance program. The Department of Social Welfare and Development (DSWD), in coordination with the Department of Foreign Affairs (DFA), and other partner agencies, also provide services to OFs through the International Social Welfare Services for Filipino Nationals. Social welfare attachés (SWAs) assigned in selected diplomatic posts with large concentrations of OFs provide services and assistance to OFs who are in crisis or in need of special protection. Currently, SWAs are present in the Kingdom of Saudi Arabia, Malaysia, and Italy. DSWD is conducting a special audit of SWAs to assess the effectiveness of the International Social Services Offices and to identify the countries that must be prioritized.

The Migrants Workers and Overseas Filipino Act (RA 10022) mandates the provision of compulsory insurance to OFs. However, this insurance excludes direct hires, and is effective only during their stay in destination countries. In times of death and disability, OWWA members and their families receive benefits and assistance.

Assist WELL (Welfare, Employment, Legal, and Livelihood) Program, which converges reintegration assistance and services to address the needs of repatriated workers, began in 2014.

It aims to cushion the impact of unemployment and assist in the reintegration of OFs in their respective communities by providing a one-time grant of ₱10,000 to distressed OFs. In 2015, around 6,500 repatriated OFs received assistance from the program.

Disaster-affected communities. According to the World Risk Report (2016), the Philippines ranks third among 171 countries with the highest levels of disaster risks. To prepare communities against environmental risks, the government has launched programs to identify vulnerabilities and create stop-gap measures to improve resilience. Called READY Project, the Hazards Mapping for Effective Community-Based Disaster Risk Mitigation initiated by the Department of Science and Technology (DOST) aims to address issues in local disaster risk management. The project has three components: (a) multi-hazard and risk assessment; (b) community-based disaster risk mitigation through development of community-based early warning system and conduct of information, education, and communication campaigns; and (c) mainstreaming disaster risk reduction in local development. The first component includes the Nationwide Operational Assessment of Hazards (Project NOAH), which has been instrumental in identifying vulnerable areas. The agency has also facilitated the formulation of comprehensive policies and plans that enabled local government units (LGUs) to prepare for upcoming disasters. The next step is to implement a nationwide rollout of the READY Project.

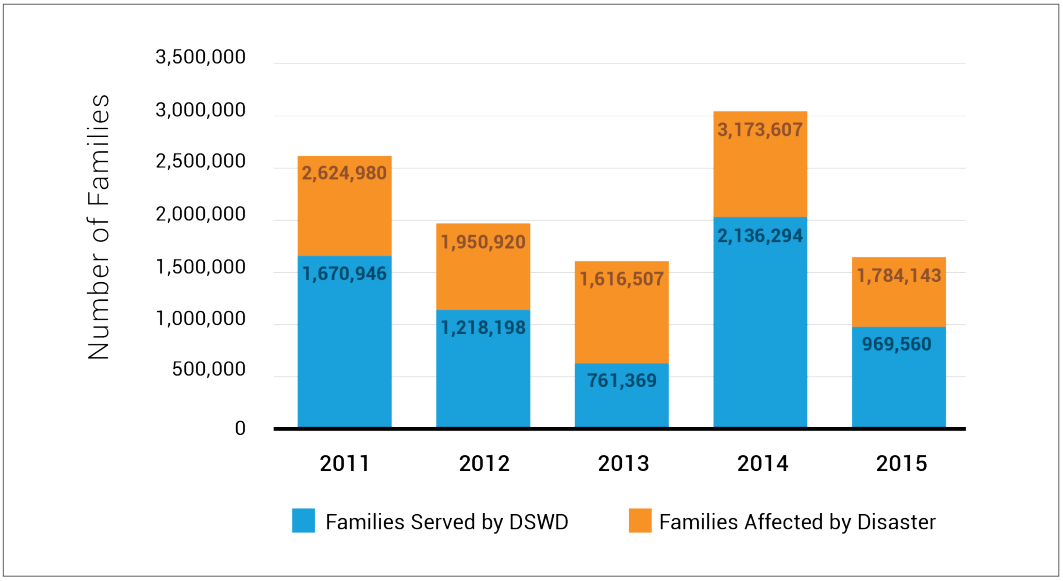
In times of disaster, DSWD augments the resources of local government units by providing food and non-food relief packs to affected households. Through the use of predictive analytics, estimates of households that will be affected can be done days in advance. Moreover, relief goods are sent to LGUs in advance to make their availability more timely. The DSWD's National Resource Operations Center has helped make packing of relief items more efficient. It has made

full use of lessons learned from the Yolanda experience to improve its disaster response program.

Disaster relief assistance from 2011 to 2015 has an average of 59 percent *(Figure 11.2)* in terms of the proportion of families affected by natural and human-induced calamities provided with relief assistance.

Early recovery and rehabilitation efforts for typhoons and tropical storms of great magnitude, particularly Sendong (2011), Pablo (2012), and Yolanda (2013), proved to be challenging. Following the onslaught of these super typhoons, bunk houses served as temporary settlements for affected communities. Provision of permanent resettlement took longer than expected, which spawned issues of human trafficking, gender-based violence, and diseases. Schools proved to be unconducive evacuation centers because of their structural design and lack of proper sanitation. Psychosocial support to victims and assistive devices for the specific needs of PWDs are to be provided to manage the psychological impact of disasters.

Figure 11.2 Disaster Relief Assistance, 2011-2015



Strategic Framework

Under the pillar *Pagbabago* or reducing inequality, the PDP 2017-2022 aims to build the socioeconomic resilience of individuals and families by reducing their vulnerability to various risks and disasters. In particular, the government will aim for universal and transformative social protection for all Filipinos.

Targets

The PDP aims to reduce each type of risk and enable people to manage individual, economic, environmental and natural risks. *Table 11.5* shows the plan indicators and corresponding targets.

Table 11.5 Plan Targets to Reduce Vulnerability of Individuals and Families, 2017-2022

INDICATORS	BASELINE	END OF PLAN TARGET
Individual Risk		
Percentage of population covered by PhilHealth insurance	92% (2015)	100%
Percentage of out-of-pocket expenditure over total health expenditure	55.8% (2014)	<35%
Proportion of poor senior citizens covered by social pension [14]	95%	
(2016, coverage based on Listahanan)	100%	
Economic risks		
Percentage of SSS regular members over the total number of workers employed by private sector		100%
Percentage of employed in the government covered by GSIS	100%	100%
Percentage of OFW membership to OWWA over total documented OFWs increased		100%
Proportion of children aged 5-17 years engaged in child labor, by sex and age*		30% reduction from latest data
Environmental and Natural Risks		
Proportion of families affected by natural and human-induced calamities provided with relief assistance	54% (2015)	100%
Number of deaths due to disaster per 100,000 population*		0
Number of missing persons due to disaster per 100,000 population*		0
Emergency shelter assistance provided		100%
Cross-cutting		
Total government spending in SP as a proportion of the GDP* (in ₱)		5%
Total government spending in SP as a proportion of the national budget* (in ₱)		

**UN Sustainable Development Goals indicators*

[14] Due to limitations in gathering data on the total number of poor senior citizens as of December 2016, the baseline used in the indicator is the 95% coverage based on Listahanan as of 2016. The indicator aims to cater to the total number of poor senior citizens –not only those under the Listahanan database or the LGU-sponsored program.

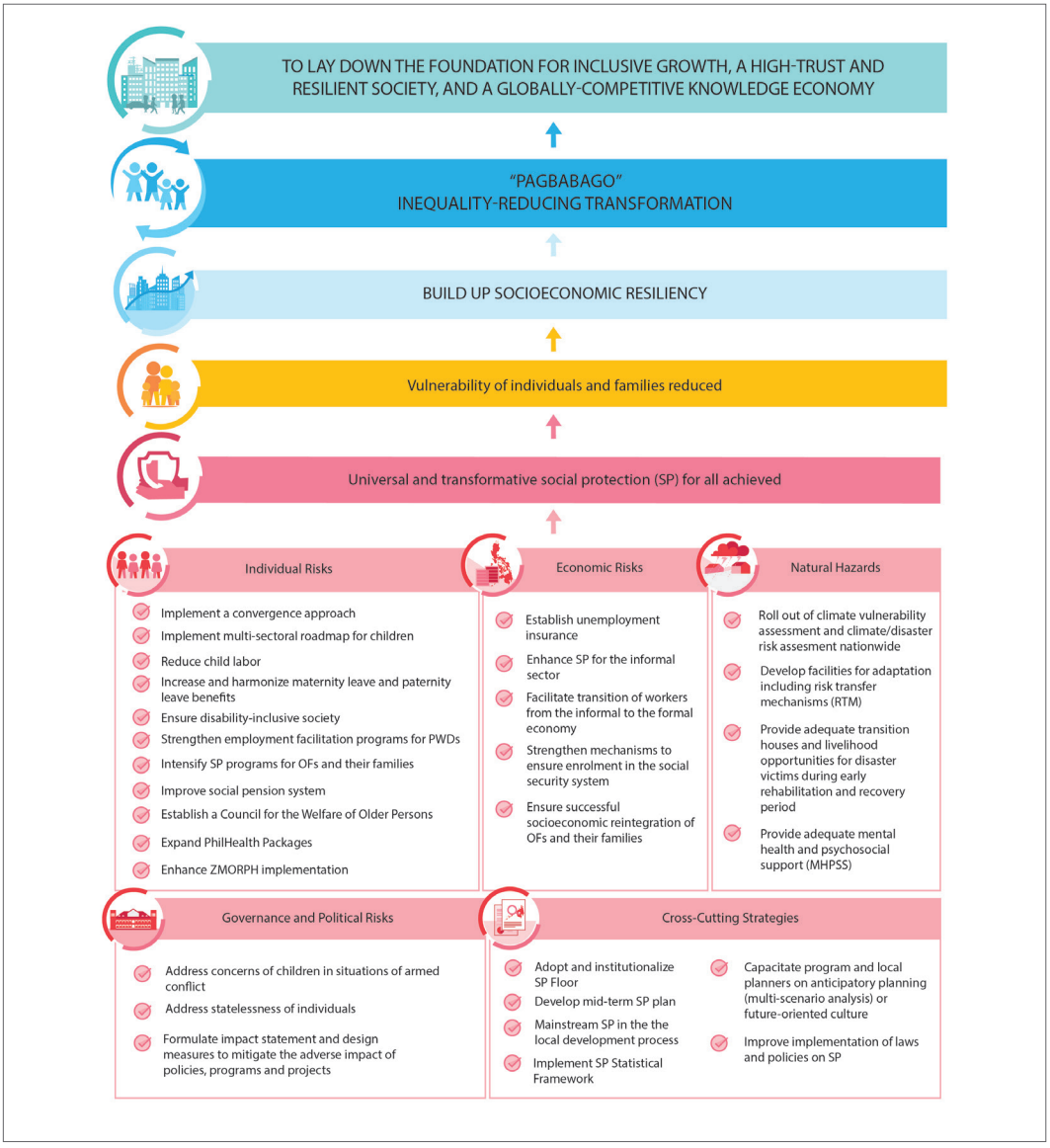
Strategies

To build socioeconomic resilience of people, the government will aim to provide universal and transformative social protection that will benefit the entire population.

Social protection for the vulnerable will be based on the various risks that people face.

Strategies will focus on job creation or efforts to create employment-centered growth and asset reforms. Social protection will include the following in its objectives: equity, social cohesion, nation-building, conflict management, disaster-risk reduction and management, and human capital formation. It will also prioritize the needs of the most vulnerable members of the community.

Figure 11.3 Strategic Framework to Reduce Vulnerability of Individuals and Families, 2017-2022



To mitigate risks faced by vulnerable groups:

Implement a convergence approach to help the poor and vulnerable become self-sufficient and self-reliant. The Listahanan showed that around 1.3 million household beneficiaries have already crossed the poverty line. While the numbers are still being validated,[15] the urgent concern now is to prevent these families from retrogressing into poverty. To address health concerns, the Indigent Program of the NHIP will continue to cover the households identified in the Listahanan. There will also be programs to link these households with social enterprises to capacitate them to engage in livelihood opportunities.

Implement a multi-sectoral roadmap for children. This will build an enabling environment that respects, protects, and fulfils the rights of all children in the country. The government also recognizes the importance to protect children's right to survival, development, protection, and participation, as well as their right to attain their full potentials as enshrined in the United Nations Convention on the Rights of the Child (UNCRC).

Enhance the conditional cash transfer program. The conditional cash transfer approach of the government will be continued to ensure that the rights of poor children are upheld. Moreover, it will be enhanced specifically to help child beneficiaries and their families become self-sufficient and self-reliant.

Reduce cases of child labor by 30 percent. The government will launch mechanisms to reduce cases of child labor and monitor the implementation of relevant policies.

Increase and harmonize maternity leave and paternity leave benefits. Increase in maternity leave benefits will ensure equal access to employment and security of tenure. This will cover female employees in the public and private sector. There is also a parallel initiative for the increase in paternity leave benefits from the current 7 days to at least 14 days. This will further ease the burden of caring for the infant.

Ensure a disability-inclusive society. Initiatives will include enhancing stakeholders' understanding of disability (i.e., impairments and barriers to development) and stricter implementation of disability-related policies and programs. Relatedly, the Insurance Law will be reviewed to address issues on limited access to insurance policies due to disability and ensure adherence to the UN Convention on the Rights of Persons with Disabilities (UNCRPD).

Strengthen employment facilitation programs for PWDs. The government will adopt strategies to expand employment opportunities and enhance the quality of employment among PWDs. These will involve the integration of labor market information and employment facilitation systems, including supply and demand data, crafts and livelihood information, and conduct of trainings responsive to market demands. The government will also reinforce the implementation of laws providing incentives and recognition to employers with PWD staff.

Intensify social protection programs for OFs and their families. Social security benefits will be included in the standard employment contract for all types of OFs. The government will establish additional SSS, PAG-IBIG, and PhilHealth representative offices overseas, alongside massive information dissemination campaigns. There will be a review of existing state-to-state government mechanisms

[15] DSWD is implementing the Kumustahan to verify the status of Pantawid Pamilya beneficiaries.

and identification of prospective bilateral agreements to maximize benefits and minimize costs of international migration. Additionally, to address the vulnerabilities caused by global developments, social safety nets will be extended and complemented by reintegration programs, skills upgrading, and skills matching with domestic opportunities.

Organize and support OFW family circles (OFCs). OFW family circles provide the link between OFs and their community. At the same time, the OFs are assured of a support system for the family left behind. Such circles also help OFWs navigate through the different phases of their overseas employment, including their reintegration when they return to the Philippines.

Improve social pension system. The Senior Citizen Law will be reviewed to tackle adjustments in social pension and redefine the inclusion criteria to improve coverage.

Establish a Council for the Welfare of Older Persons. Create a government body that will coordinate the formulation, implementation, and monitoring and evaluation of policies, plans, and programs for senior citizens.

Expand PhilHealth packages through the different health financial programs of the government. All health financial programs of government agencies will intersect to support a universal health insurance. The target is to increase benefit utilization and adjust case rates to ensure full coverage of cost of care. Benefit packages will continue to expand and cover outpatient diagnostics, medicine, blood, and blood products. NHIP will guarantee full support value for the poor and those admitted in basic accommodation. Predictable or fixed co-payment will be given to those admitted in non-basic, private accommodation.

Enhance ZMORPH implementation. PhilHealth will develop clear accreditation guidelines for government and non-government health facilities across the country for Mobility, Orthosis, Rehabilitation, Prosthesis Help (ZMORH). This may include providing support to develop and capacitate service suppliers in all regions down to the provincial level.

To manage economic risks:

Establish unemployment insurance (UI). This program will address income insecurity by: (a) facilitating re-employment for involuntarily-unemployed individuals; (b) re-tooling as required in job transitions or entrepreneurial endeavors; and (c) cushioning individuals and their families from the impact of involuntary work dismissal.

Enhance social protection for the informal sector. Benefits and SP services will expand to safeguard workers in the informal economy.

Facilitate transition of workers from the informal to the formal economy. This will target the promotion and facilitation of access to SP programs such as employment and entrepreneurship opportunities, social security schemes, social services, and insurance systems.

Strengthen mechanisms to ensure enrolment in the social security systems. The government will revisit and assess existing mechanisms to encourage SSS enrolment of people in the informal sector.

Ensure successful socioeconomic reintegration of overseas Filipinos and their families. The government will continue its initiatives toward the successful reintegration of OFs through the Assist WELL Program. Agencies under the Human

Development and Poverty Reduction Cabinet (HDPRC) Cluster will converge efforts to intensify reintegration awareness, counselling, and onsite support to OFs and their families.

To deal with natural hazards:

Roll out climate and disaster vulnerability and risk assessment nationwide. To mainstream disaster risk reduction and climate change adaptation (DRR-CCA), the Climate Change Commission (CCC) will craft an enabling policy and provide assistance to local communities in conducting vulnerability and risk assessment. The results of the assessment will form the backbone of local strategies and measures to reduce vulnerabilities.

Develop facilities for adaptation including risk transfer mechanisms (RTM). The People Survival Fund (PSF) Facility will provide technical and financial assistance to enable local communities implement adaptation measures. The CCC will explore partnerships with the National Disaster Risk Reduction and Management Council (NDRRMC) to maximize the PSF and NDRRM Fund for risk transfer schemes such as insurance. It will also provide a clear policy on how climate finance will enhance SP for vulnerable communities.

Provide adequate transition houses and livelihood opportunities to disaster victims during the early rehabilitation and recovery period. National and local government units will collaborate in identifying safe areas for the construction of transition houses prior to relocation of victims to permanent resettlement areas. Identification of these areas can be based on the available risk assessments and hazard maps. Structural design will be improved and establishment of women and children-friendly spaces will be undertaken to protect and promote the welfare of women, children, and indigenous peoples. Protocols for emergency cash transfers, calamity loans, and livelihood programs will be established in areas most likely to be affected by disasters.

Provide adequate mental health and psychosocial support services (MHPSS). Disaster response must include economic, material and physical needs, and psychosocial and mental concerns. Efforts will include increasing public awareness of the MHPSS, capacity building of local implementers, and ensuring that facilities and relocation sites are MHPSS-friendly.

To address governance and political risks:

Address concerns of children in situations of armed conflict. Establish a protocol on monitoring, reporting and response system (MRRS) at the national and local levels. For the next six years, the Council for the Welfare of Children will: (a) establish a monitoring system at the national, regional, province, municipal and city levels to record and track incidents; and (b) respond to all cases of grave child rights violations and provide appropriate programs and services to the victims.

Address statelessness of individuals. Government will ensure that no child or person is stateless or undocumented in the Philippines. To achieve this, the following processes will be institutionalized: (a) identification of populations at risk of statelessness (foundlings are included); (b) issuance of legal documentation; (c) completion of processes related to confirmation of nationality; (d) enactment of laws, issuance of policies, and implementation of programs and services; and (e) amendment of Civil Registration Law and RA 9139 or the Philippine Immigration Act.

Formulate impact statement and design measures to mitigate the adverse impact of policies, programs, and projects. A

protocol will be developed to identify the adverse impact of policies, programs, and projects, and design the necessary measures to mitigate this impact. Next step is to conduct capacity-building programs and then institutionalize the process.

To achieve universal social protection:

Adopt and institutionalize the Social Protection Floor. This guide will be anchored on the country's official SP definition, and will consequently guide the identification and prioritization of relevant programs for vulnerable sectors.

Develop a medium-term Social Protection Plan. In 2013, the SP Handbook and SP Vulnerability and Adaptation Manual (SP-VAM) were developed. As of 2016, about 63% of the LGUs have been trained on the use of the SP Handbook. There is still a need to cover the remaining LGUs and expand the SP mechanism to include isolated and conflict-affected communities. *See Chapter 17.*

A medium-term SP Plan will serve as the point of convergence of various agencies in their implementation of SP programs. The SP Plan will be consistent and in harmony with the overall national development plan to provide broad guidance to national government agencies, LGUs, and civil society organizations (CSOs) in conceptualizing, delivering, and evaluating SP interventions, programs, and services.

Mainstream social protection in the local development process. Mainstreaming the SP framework at the local level will ensure its integration in local development processes. It will entail the conduct of SP dissemination forums to popularize it both at the national and regional levels.

Implement a Social Protection Statistical Framework. The government will formulate the framework and its subsequent indicators, consistent with the Philippine Statistical Development Program (PSDP) and aligned with the UN Sustainable Development Goals (SDGs) to deliver quality SP statistics in support of evidence-based policymaking, program implementation, and monitoring and evaluation. The data should track the status of vulnerable sectors, such as PWDs, WIS, child laborers, and indigenous peoples. This will also include early detection systems of risks that could affect communities.

Capacitate program and local planners on anticipatory planning (multi-scenario analysis) or future-oriented culture. Effective adaptation and mitigation measures will entail the application of multi-scenario analysis during risk assessments. Additionally, climate change projections will improve foresight on sector impacts, and will assist stakeholders in adjusting their systems to mitigate risks.

Improve implementation of laws and policies on social protection. Apart from improved policy implementation, the government will assess resources and capabilities of relevant national government agencies (NGAs). Existing laws such as Batas Pambansa Blg. 344[16] will undergo review and possible amendments to be more responsive to emerging socioeconomic issues.

[16] Or "An Act to Enhance the Mobility of Disabled Persons by Requiring Certain Buildings, Institutions, Establishments and Public Utilities to install Facilities and Other Devices"

Legislative Agenda

To complement the strategies, legislative action will be sought in support of the goal of achieving a universal and transformative social protection program for all Filipinos.

Table 11.6 Legislative Agenda to Reduce Vulnerability of Individuals and Families, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Individual Lifecycle Risks	
Philippine Adoption Act for Abandoned and Neglected Children and for Children with Special Needs	Improve the quality of foster care for abandoned and neglected children, particularly those with special needs.
Anti-Senior Citizen Abuse Act	Protect senior citizens from all forms of abuse.
An Act Establishing a Disability Support Trust Fund	Support PWDs in terms of rehabilitation services, appropriate assistive devices, technology, education, employment, and other disability support services. It will also involve capacity-building of LGUs in provision of services for PWDs and build their own trust fund.
Amend Republic Act 8972 on Benefits and Privileges to Solo Parents and their Children	Increase the benefit package for solo parents.
Social security initiatives	Review the SSS Charter to ensure its long-term viability.
Amend Accessibility Law (BP Blg. 344)	Include information, communication, and technology.
Economic Risks	
Unemployment insurance or involuntary separation benefit system	Provide meaningful jobs, guarantee income security during sudden unemployment, and provide financial assistance linked to active labor market programs.
Subsidy on social insurance for the informal sector	Provide social insurance for the informal sector workers to safeguard and incentivize them by registering in government programs.
Extension of maternity leave benefits	Improve and harmonize the existing maternity benefits including increasing the leave period from 60 to 78 days to at least 100 days for women in both public service and private sector.
Environmental and Natural Risks	
Mandatory Establishment of Women-Child Friendly Spaces in All Evacuation Centers in the Country	Protect and promote the general welfare of women and children especially during times of disaster.
Evacuation Center Act	Establish permanent and typhoon-resilient evacuation centers with the necessary facilities to avoid the practice of using classrooms as evacuation centers during calamities. Centers should also have PWD-friendly and elderly-friendly spaces. The NDRRMC will be in charge of identifying which municipalities and cities will be given priority.

12 Building Safe and Secure Communities

Chapter 12

Building Safe and Secure Communities

The quality of shelter and the kind of communities where people live can be both a source of vulnerability and a means to enhance development opportunities and improve human development outcomes. The government recognizes the importance of building and expanding people's access to safe and secure shelter in well-planned communities. Housing has become even more significant given that, based on the results of a national survey for *AmBisyon Natin* 2040, it is among the aspirations of most Filipinos. Moreover, housing and urban development become increasingly important as the economy grows, attracting people to urban areas where the opportunities are found. If not managed well, urbanization can pose risks to health, life, and property and compound natural hazards that cause disasters.

The Philippine Development Plan (PDP) 2017-2022 thus aims to support communities, marginalized sectors, local governments and the private sector in building safe and secure communities that will allow more families to enjoy a *matatag, maginhawa, at panatag na buhay* – strongly rooted, comfortable and secure – as part of building socioeconomic resilience.

Assessment and Challenges

Under the 1987 Constitution, "the State shall, by law, and for the common good, undertake, in cooperation with the private sector, a continuing program of urban land reform and housing which will make available at affordable cost, decent housing and basic services to underprivileged and homeless citizens in urban centers and resettlement areas."

Achievements in terms of building shelters were dampened by the destruction caused by weather-related disasters and by increased demand. For the period 2011-2016, the National Shelter Program (NSP) delivered direct housing assistance to more than 730,000 households. This is supposed to correspond to an accomplishment rate of 83 percent; however, the number includes the housing units constructed after super typhoon Yolanda and the Bohol earthquake, which were not part of the original target. This in effect overstated the accomplishment rate because the target was not increased to factor in additional demand from households whose structures were damaged or completely destroyed.

Indirect housing assistance provided by the National Home Mortgage Finance Corporation (NHMFC), through the Housing Loan Receivables Purchase Program (HLRPP), accomplished more than twice its target at 256 percent. In contrast, Home Guaranty Corporation's (HGC) housing guaranty program delivered only 56 percent due to the relatively low demand for housing guaranties from banks and financial institutions.

Table 12.1 Housing Targets and Accomplishments (in units/households), 2011-2016

KEY PERFORMANCE INDICATORS	TARGET	ACCOMPLISHMENT*	PERFORMANCE RATE (%)
Direct Housing Assistance			
Socialized Housing (below ₱450,000)	611,259	505,398	83
NHA Production**	372,950	324,676	87
SHFC HDH/CMP	157,800	87,636	56
HDMF Socialized Housing	80,509	93,086	116
Low-cost Housing (₱451,000-₱3 M)	259,708	224,783	85
HDMF End-User Financing	259,708	221,739	85
GFI's End-User Financing***	no target	3,044	
Total Direct Housing Provision	870,967	730,181	83
Indirect Housing Assistance			
HGC Guaranty/ Securitization/AKPF	240,240	135,200	56
NHMFC HLRPP	6,933	18,352****	265
HLURB			
TA - CLUP (LGUs Assisted)	987	1,240	126
LTS issuances	1,006,500	1,312,786	130

Source: Housing and Urban Development Coordinating Council (HUDCC)*As of October 2016
** As of October 2016, includes the TY. Yolanda Resettlement Program*
*** Excluding HOMA*
**** Accomplishment was not included in the computation of low-cost housing and Total Accomplishment Rate since there was no target set*
***** As of November 2016*

Beyond outputs, the social impact of the National Shelter Program has not been sufficiently monitored and evaluated. The NSP anchors primarily on a housing finance approach that is demand-driven, project-based, and profit-oriented. Consequently, performance is monitored in terms of output rather than social impact, i.e., the decrease in number of low-income families living in unacceptable housing. During the 2017 budget call, the Department of Budget and Management (DBM) noted at least 15,000 unoccupied houses in 26 resettlements sites completed by the National Housing Authority (NHA). Against this backdrop, the NSP will need to shift its focus on livability and building well-planned and resilient communities.

The shortfall in NSP's performance may be due to the following: (a) slow process in land acquisition, licensing, and agency/local government unit (LGU) clearances, among others; (b) weak urban planning and unclear rules among government agencies, as well as national and local policies; (c) limited appropriations where housing traditionally received less than 0.5 percent of the annual national budget[1] or 0.12 percent of GDP, one of the lowest among Southeast Asian countries; and (d) institutional limitations among the key shelter agencies (KSAs). The confluence of these factors resulted in low budget utilization rates – 71 percent for NHA and 67 percent for Social Housing Finance Corporation (SHFC) (2013-2015).

[1] The share of housing in the social services expenditures ranged from 0.05-0.11 percent during the period 2014-2016.

Box Article 12.1. Status of the ₱50 billion *Oplan Likas* Housing Program for Informal Settler Families (ISFs) Living in Danger Areas in Metro Manila

Under the five-year ₱50 billion Oplan Likas housing program for the relocation of around 104,000 ISFs residing along danger areas in Metro Manila, more than 83,000 housing units (69%) were completed by NHA and SHFC as of September 30, 2016. On the other hand, around 26, 000 units or 22 percent are on-going and about 11, 000 or 9 percent are yet to be started. Of the total housing units delivered, 11 percent are in-city and 89 percent are off-city resettlements.

The implementation of the ₱50 billion housing program for ISFs living in danger areas has been slow due to land acquisition, site development, and relocation issues and bottlenecks.

Problems in land acquisition include lack of suitable and affordable land, objection of LGUs to absorb ISFs residing outside their cities or municipalities, delayed issuance of a Bureau of Internal Revenue (BIR) ruling on capital gains tax exemption for developers, and difficulties among ISFs in complying with technical requirements. On the other hand, site development is hampered by delayed issuance by LGUs of permits and other requirements. Relocation also becomes a problem due to delayed power and water connection in off-city resettlement areas. Also, ISFs often do not voluntarily relocate for several reasons, among them are: (a) lack of livelihood opportunities in off-city resettlement sites; (b) slow payment of financial assistance to ISFs; (c) titling for High Density Housing (HDH); and (d) affordability of units.

Other issues affecting the implementation of the programs for ISFs include: (a) LGU properties previously committed for the program were no longer available; (b) ISFs' slow submission or failure to submit pre-qualification documents despite follow-ups; and (c) issue on the clearing of privately-owned properties (e.g., business establishments, barangay halls, etc.) within the waterways.

The practice of KSAs to decrease NSP targets may indicate, among others: (a) need for more accurate models that can better project housing targets; (b) weaknesses in budget utilization of KSAs; (c) recurring inefficiencies within specific NSP programs[2]; and (d) need for the passage of relevant legislative agenda (e.g. National Land Use Act [NaLUA], Comprehensive and Integrated Shelter Finance Act [CISFA] II, Department of Housing and Urban Development [DHUD])

The housing sector has identified several challenges that need to be addressed immediately.

Implementation issues in the delivery of decent and affordable housing to the intended beneficiaries (e.g. poor, underprivileged, and communities vulnerable to multiple hazards) need to be addressed. Although the government prioritizes in-city resettlement, delays in the delivery of housing programs persist due to land acquisition problems (i.e., limited suitable and affordable land) for socialized housing development. Furthermore, the required numerous intergovernmental transactions and associated bureaucratic processes hinder the efficient provision of housing.

[2] There has been no formal review of the NSP, but it is already pipelined under the NEDA Monitoring and Evaluation fund.

Box Article 12.2 Status of Yolanda Housing Assistance

The Shelter Assistance Program (SAP) of the Department of Social Welfare and Development (DSWD) has helped 1.14 million families rebuild their houses destroyed by Typhoon Yolanda. As of September 2016, the Emergency Shelter Assistance program provided cash or material assistance to 105% of the target families with partially and totally damaged houses under the Comprehensive Recovery and Rehabilitation Program (CRRP). Under the Core Shelter Assistance Project (CSAP), 1,075 units have been completed and occupied by the family-beneficiaries, construction of 211 units is ongoing, and 1,709 have yet to be constructed.

For permanent housing for Yolanda-affected areas, the NHA was tasked to assist 205,000 families/households. The affected families/households are distributed in 6 regions, 14 provinces, and 115 cities and municipalities. As of September 2016, there are 29,661 units completed and construction of 102,240 units ongoing. Meanwhile, SHFC provided 4,000 ISFs with land security through 280 Community Mortgage Program (CMP) projects, amounting to ₱250.95 million, in the provinces of Leyte and Capiz.

The delay in the implementation of the Yolanda Housing Projects, which started in December 2014, was mainly due to the following:

- lack of suitable sites due to the classification of danger areas ("no-build zones") and protected areas (e.g., Bantayan Island is declared a wilderness area, Camotes Island is a Mangrove Swamp Forest Reserve)
- slow conversion of safe sites from agricultural to residential use
- titling problems as most lands in the Visayas Regions are untitled, with only tax declarations available
- difficulty in securing approvals of local *Sanggunians*
- issues with BIR (e.g., contractors are required to pay taxes despite NHA's certification to fast track the issuance of titles for projects under Yolanda delay in the issuance of BIR ruling and electronic Certificate Authorizing Registration (eCAR) for lot titling)
- non-implementation of Administrative Order No. 44 or "Streamlining the Process of Issuance of Permits, Certifications, Clearances, and Licenses for Housing and Resettlement Projects in Yolanda-affected Areas, Directing all Government Agencies Concerned to Observe the Same and Imposing Sanctions for Non-Compliance"

In response to the land management challenge, the PDP 2011-2016 Midterm Update and the 2014 Socioeconomic Report identified and reiterated the need to adopt alternative approaches to land acquisition (e.g., usufruct, long-term lease, land-banking), as well as innovative approaches to housing solutions (e.g., high-density mass housing, vertical developments for socialized housing, public rental housing, expansion of housing microfinance). Although a few LGUs explore new approaches in public rental housing and socialized housing vertical developments, they remain limited especially at the national level, except for the SHFC's High Density Housing Program. Furthermore, there is no established national program with set guidelines and standards for public rental housing, as well as housing microfinance and other nonmortgage-based models.

An inclusive and sustainable urban development framework has to be developed. There is a call for an inclusive and sustainable urban development framework given the implications of population growth, rapid urbanization, and rural-urban migration in the country. The total housing need[3] of the country remains enormous at approximately 6.80 million units for the period 2017 to 2022, with a housing backlog (accumulated need)[4] of 2.02 million as of December 2016.[5] In 2014, the proportion of the Philippines' urban population to total population or "urbanization rate" was estimated by the United Nations to be at 44 percent, and

[3] Composed of accumulated needs (i.e., households in unacceptable housing and double-up households in acceptable housing units) and future/recurrent needs (i.e., allowance for inventory losses and increase in households, particularly those who are projected to likely afford to own acceptable housing units)

[4] Households in unacceptable housing (i.e., rent-free without consent of owners, marginal housing, dilapidated/condemned, and the homeless) and double-up households in acceptable housing units

[5] See Table 12.2

Table 12.2 Estimated Housing Needs, by Component, 2017-2022

COMPONENTS OF HOUSING NEEDS	INITIAL NEEDS (AS OF DEC 31, 2016) BACKLOG	ANNUAL INCREMENTAL NEEDS						TOTAL HOUSING NEEDS
		CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	
Total Housing Needs	**2,017,909**	**760,400**	**774,441**	**788,773**	**803,405**	**818,363**	**833,619**	**6,796,910**
A. Accumulated Needs	1,293,207	22,392	22,839	23,301	23,763	24,260	24,741	**1,434,503**
1. HH in Unacceptable Housing	799,780	13,528	13,789	14,064	14,328	14,623	14,905	**885,017**
a. Rent-free without consent of owner	535,418	9,103	9,278	9,463	9,654	9,842	10,045	**592,803**
b. Homeless	5,390	94	93	99	94	104	101	**5,975**
c. Dilapidated/ condemned	91,758	1,492	1,519	1,549	1,569	1,608	1,634	**101,129**
d. Marginal Housing	167,214	2,839	2,899	2,953	3,011	3,069	3,125	**185,110**
2. Doubled-up HH in Acceptable HU	493,427	8,864	9,050	9,237	9,435	9,637	9,836	**549,486**
B. Future/ Recurrent Needs	**724,702**	**738,008**	**751,602**	**765,472**	**779,642**	**794,103**	**808,878**	**5,362,407**
1. Allowance for Inventory losses	361,129	367,259	373,514	379,884	386,380	393,003	399,752	**2,660,921**
2. Increase in HHs (likely to afford to own acceptable HU)	363,573	370,749	378,088	385,588	393,262	401,100	409,126	**2,701,486**

Source: Housing and Urban Development Coordinating Council

will reach 56 percent by 2050.[6] Expanding access to decent, affordable, and secure shelter, particularly in urban areas, has been difficult for the housing sector primarily due to rapid urbanization and limited availability of suitable and affordable land. As of 2011, there is an estimated 1,502,336 ISFs nationwide, of which 584,425 ISFs or about 39 percent are in Metro Manila.

Implementation of key strategies and reforms is constrained by fragmented institutional arrangements in the sector. Although housing is decentralized to LGUs as prescribed by the Local Government Code (LGC) of 1991, KSAs perform their functions based on their specific mandates but delineation of responsibilities between the national and local government is not clearly defined.[7] Only a number of LGUs have established local housing offices and local housing boards to address the unmet housing needs of their poor and underprivileged constituents. Hence, linkage of local shelter plans to regional and national plans needs to be improved toward a more holistic settlement planning, and inter-LGU urban development and planning systems need to be established.

The adoption of a New Urban Agenda (NUA) presents several prospects and opportunities to enhance the housing and urban development policy framework. Moreover, the adoption of a National Resettlement Policy Framework (NRPF) will rationalize common procedures and guidelines in resettlement to be adopted by all infrastructure agencies, KSAs, LGUs, and other government agencies implementing projects with resettlement and housing components.

[6] As indicated in the 2014 World Urbanization Prospects (revised)

[7] Ballesteros, Marife. 2002. *Rethinking Institutional Reforms in the Philippine Housing Sector*. Discussion Paper Series No. 2002-16. Philippine Institute for Development Studies (PIDS).

Furthermore, updating the National Urban Development and Housing Framework (NUDHF) 2017-2022 is a good opportunity to re-evaluate the urban framework, align it with the NUA and PDP, and develop forward-looking responses to the challenges confronting Philippine human settlements.

Strategic Framework

Under the pillar *Pagbabago* or reducing inequality, the PDP 2017-2022 aims to strengthen socioeconomic resilience by building safe and secure communities. This chapter focuses on expanding access to affordable, adequate, safe, and secure shelter in well-planned communities.

Targets

For the period 2017-2022, the housing sector targets to deliver direct housing assistance to 1,558,711 households, mainly through the NHA Housing Production, SHFC Community Driven Shelter Programs, and Home Development Mutual Fund (HDMF) End-User Financing Program (see Table12.3).

Table12.3 National Shelter Program Direct Housing Assistance Targets, 2017-2022

PROGRAM (In Households Assisted)	AGENCY	TOTAL
I. Direct Housing Provision		
A. NHA Housing Production	**NHA**	**835,203**
1.Resettlement For ISFs		333,078
2. Vertical Developments (LRBs)		2,754
2. AFP/PNP Housing Program		41,405
3. Settlements Upgrading		39,454
4. Cost Recoverable Housing (Employee's Housing)		24,100
5. High-Impact Projects (Mixed-Used Development)		15,800
6. Housing Assistance Program For Calamity Victims		378,612
- Permanent Housing		198,612
- HOMA		180,000
Total NHA Without HOMA		655,203
B. COMMUNITY DRIVEN HOUSING PROGRAM	**SHFC***	**385,524**
1. Community Mortgage Program (CMP)		250,591
2. High Density Housing Program (HDHP)		134,934
C. RETAIL & DEVELOPMENT FINANCING (TOTAL)	**HDMF**	**516,957**
1. END-USER FINANCING		516,957
a. Socialized Housing (SH)		147,980
b. Low Cost Housing (LC)		361,398
c. Medium Cost (MC)		5,391
d. Open Market (OM)		2,188
Total Direct Housing Provision*		**1,558,711**

Source: HUDCC

Indirect housing provision will be provided by HGC, NHMFC, and Housing and Land Use Regulatory Board (HLURB) to assist more than 1,584,000 households over the plan period *(see Table* 12.*4)*. Further, HLURB will continue to assist LGUs in the formulation of Comprehensive Land Use Plans (CLUPs).

Table 12.4 Indirect Housing Assistance Targets, 2017-2022

PROGRAM	AGENCY	TOTAL
I. New Guaranty Enrolments	HGC	232,481
A. Socialized Housing	HGC	12,127
1. Socialized Housing Loans	HGC	11,617
2. Small Housing Loans	HGC	510
B. Low-cost Housing	HGC	162,631
C. Medium-cost Housing	HGC	34,850
D. Open Housing	HGC	23,233
II. License to Sell	HLURB	1,317,258
III. LGUs provided Comprehensive Land Use Plan (CLUP) Assistance	HLURB	630
IV. Housing Loan Receivable Purchase Program (HLRPP)	NHMFC	34,900
Total Indirect Housing Assistance[8]		**1,584,639**

Source: HUDCC

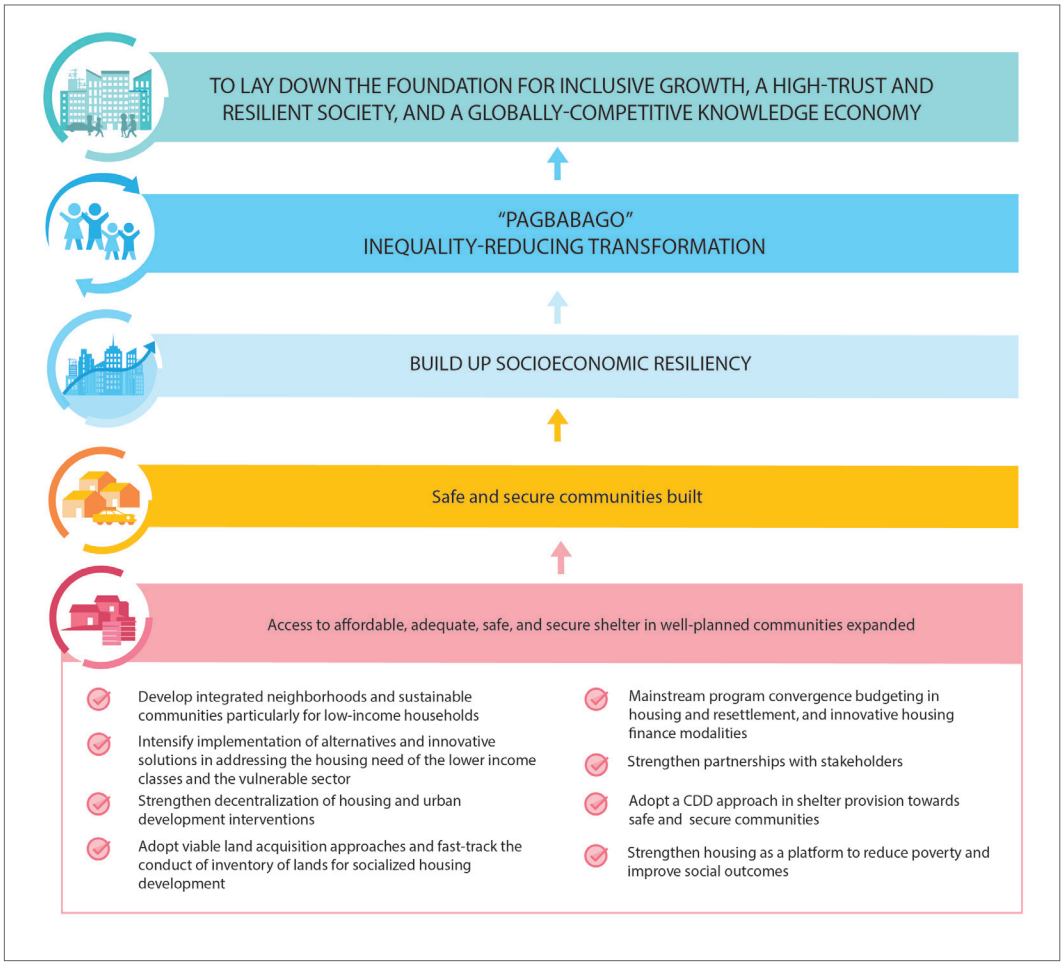
Table 12.5 Plan Targets to Build Safe and Secure Communities, 2017-2022

INDICATORS	BASELINE (2016)	END OF PLAN TARGETS
Access to affordable, adequate, safe, and secure shelter towards happy and well-planned communities expanded		
Proportion of urban population living in slums, informal settlements or inadequate housing decreased* (SDG 11.1.1)	40.9 (2009, UN- HABITAT)	22
Proportion of socialized housing target to housing needs improved (%)	47.87	85

[8] Does not include item no. 3 (LGUs provided CLUP assistance) because the total includes only the households indirectly assisted.

Strategies

Figure 12.1 Strategic Framework to Build Safe and Secure Communities, 2017-2022



The following strategies will be adopted to achieve the targets for building safe and secure communities:

Develop integrated neighborhoods and sustainable communities particularly for low-income households. The government will implement the National Spatial Strategy (NSS) which seeks to address the challenges of agglomeration economies, connectivity, and vulnerability. (*See Chapter 3*) Under the NSS, the growth and development of urban centers and human settlements will proceed in a rational and sustainable manner, with the convergence of efforts of various sectors. This is to ensure that housing and auxiliary services and needs of resettled ISFs are adequately satisfied. The physical infrastructure of housing and location of human settlements must also ensure compliance with disaster risk reduction and management (DRRM) and climate change adaptation (CCA) requirements to mitigate risks and address vulnerability.

Intensify implementation of alternatives and innovative solutions in addressing the housing needs of the lower income classes and vulnerable sector. Solutions such as public rental housing, mixed-income / mixed-use housing development, housing microfinance initiatives, incremental

housing programs, and housing cooperatives will be used to enhance housing affordability. These solutions will help address the issue of low occupancy rate and cater more sustainably to the needs of the homeless, poor, and underprivileged beneficiaries.

In addition, voucher-type direct subsidies for socialized and economic housing will be explored. A voucher-type scheme can expand the delivery mechanism to include not just NHA and SHFC but also the HDMF, LGUs, and government financial institutions (GFIs). Such a scheme introduces quasi-competition among players that comply with the substantive and procedural requirements of the Urban Development and Housing Act of 1992.

The National Informal Settlements Upgrading Strategy (NISUS) is the entry point to integrate these proposed solutions. The NISUS intends to provide secure tenure to at least one million ISFs by 2025.

The national government and LGUs will prioritize the establishment of safe and secure settlements for fisherfolk who can serve as stewards for the sustainable use of coastal and marine resources.

Housing finance reforms shall be instituted to meet the needs of starting families. The HDMF contribution system should be restructured to allow for a better matching of the age-earning profile of members and the required payment stream.

Strengthen decentralization of housing and urban development interventions. As prescribed by the LGC, LGUs shall be at the forefront of housing and urban development, with the support of the national government. The decentralization of housing and urban development efforts will be reinforced, especially on local shelter planning, comprehensive land use planning with a ridge-to-reef approach, land acquisition and development, curbing proliferation of informal settlers, implementation of Regional Resettlement Action Plan (RRAP), and pursuit of NUA and SDGs, in coordination with the NGAs.

Adopt viable land acquisition approaches and fast-track the inventory of lands for socialized housing development. The upscaling of land acquisition approaches aside from land ownership (such as usufruct, long-term lease, lease variants and land-banking, among others) will be pursued to address the perennial problem of identifying suitable land, particularly in urban areas. This will also address affordability issues and hasten land disposition for socialized housing.

In the coastal areas and other flood zones, and beginning with areas frequently visited by calamities in the eastern sea board, the inventory of lands shall be the basis for programs to incentivize people to move out of areas exposed to high risks of hazards. The housing agencies will propose the scale up of programs, such as the program of providing free housing materials implemented by the DSWD's LGU partners in the aftermath of recent typhoons, to encourage people to secure financing for land acquisition in safer areas. This may be proposed as a mode for delivering a Quick Response Funds of the NDRRMC or of its successor institution.

Inventory of lands and cadastral surveys will be fast-tracked to hasten the process of identifying land for housing projects. The government will identify its idle land assets for potential use in socialized housing, as provided under Memorandum Circular No. 87, s. 2015.[9] Full implementation of an

[9] Directs all NGAs and instrumentalities, including GOCCs to submit an inventory of their respective idle lands; and create an inter-agency task force to identify lands and sites for socialized housing.

integrated land and ISF information system[10] will facilitate the identification of suitable lands for socialized and low-cost housing, as well as the mapping-out of government properties, forfeited properties, hazard areas, and location of informal settlers.

Mainstream program convergence budgeting in housing and resettlement, and innovative housing finance modalities. A programmatic and convergent approach to planning and budgeting for housing and resettlement interventions will be institutionalized in the national budget process. This will ensure that the budgetary requirements of agencies are identified early in the budget planning process for social preparation, provision of shelter, utilities, infrastructure, community facilities, livelihood opportunities, and social enterprise.

The budget will consider a proposed policy on an income-based subsidy scheme that will bridge the gap between housing costs and varying income levels of families. Under this scheme, those with lower income will receive higher subsidy. The National Resettlement Policy Framework (NRPF) will accommodate this scheme; KSAs shall likewise secure additional financing from the private sector through Public-Private Partnerships (PPPs), where government's share will be in the form of government-owned lands under a sale, usufruct, or long-term lease arrangement.

Strengthen partnerships with stakeholders. As a cross-cutting strategy, the sector will continue to strengthen its multi-stakeholder partnerships through a participatory approach. This is to ensure that local shelter plans are linked with the National Resettlement Plan (NRP). It will encourage PPPs for housing projects and improve the compliance of developers to the policy of balanced housing development. The government will also harness the services of volunteers from the academe, corporate, non-government, and international organizations in delivering social services, providing technical assistance, responding to disasters, and undertaking humanitarian efforts.

Adopt a community-driven development (CDD) approach in shelter provision towards safe and secure communities. A gender-responsive CDD ("peoples' plan") approach will be promoted to involve the beneficiaries in the entire development process. Such an approach will help increase occupancy rates and efficiency in the collection of housing loan amortization, improve estate management, and ensure inclusive access to and control of housing and human settlement services and benefits.

The government will continue to adopt *MASA-MASID (Mamamayang Ayaw sa Anomalya, Mamamayang Ayaw sa Iligal na Droga),* implemented through DILG Memorandum Circular No. 2016-116. *MASA-MASID* is a community-based program that encourages volunteers through the *Ugnayan ng Barangay at Simbahan* (UBAS) to assist the government in its campaign against corruption, illegal drugs, and criminality in the barangays. It adopts a multisectoral and mass-based approach, and banks on the participation of people to spark and sustain the spirit of volunteerism in the communities toward nation building.

Strengthen housing as a platform to reduce poverty and improve social outcomes. Housing programs will be linked with other social development programs. It will help maximize the "multiplier effect" of the provision of housing units as a means to reduce poverty, generate jobs and employment, and spur downstream economic activities.

[10] The system integrates data on ISFs from the National Household Targeting System for Poverty Reduction (NHTS-PR) of DSWD as well as data from the European Space Agency (ESA) and on land titles in ESA-identified areas from the Land Registration Authority (LRA).

Legislative Agenda

To complement the strategies, legislative action will be sought in support of the goal of building safe and secure shelter in well-planned communities.

Table 12.6 Legislative Agenda to Build Safe and Secure Communities, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Creation of the Department of Housing and Urban Development (DHUD)	Integrate all housing and urban development policies, plans, programs, and projects. This department will be the sole planning and policy-making, regulatory, program coordination, and performance-monitoring entity of the NSP.
Creation of the Social Housing Development Finance Corporation (SHDFC)	Strengthen the role of the previously created SHFC (by virtue of Executive Order No. 272, s. 2007) by redefining the powers and functions of the President, Board of Directors and of the Corporation, providing incentives, and enabling the SHDFC to enter into loans and/ or issue bonds and other debentures to raise funds for housing construction.
Passage of the National Land Use Act (NaLUA)	Establish a national land use framework that will define the indicative priorities for land utilization and allocation across residential, infrastructure, agricultural and protective uses and integrate efforts, monitor developments related to land use, and evolve policies, regulations and directions of land use planning processes.
Passage of the Comprehensive and Integrated Shelter Finance Act (CISFA) II	Enact the continuation of CISFA or RA 7835, to increase budget appropriation for the socialized housing program of the government, and significantly increase the provision of housing and tenure security to poor informal settlers in order to attain the SDGs.
Passage of the Idle Lands Tax	Promote the productive use of land by rationalizing taxation of idle lands, thereby repealing sections of the RA 7160 otherwise known as the Local Government Code (LGC) of 1991.
Creation of Local Housing Boards (LHBs) in every city/ municipality	Strengthen the roles of the LGUs in the provision of shelter to the households through the mandatory establishment of local housing boards in every city and municipality.
Amendments to the NHMFC Charter	Strengthen its mandate to include the development of a secondary mortgage market for housing-related financial instruments and issuance of housing-related asset-backed securities.

PART IV

INCREASING GROWTH POTENTIAL ("PATULOY NA PAG-UNLAD")

13 Reaching for the Demographic Dividend

Chapter 13

Reaching for the Demographic Dividend

The age structure of a country's population matters. A country whose population consists mostly of young children means that these children have to depend on those of working age. Likewise, as the population ages and the number of elderly persons appreciably increases, the dependence of this group on the workforce rises. By contrast, when people of working age comprise a relatively large proportion of the population, the workforce can generate increasingly higher production and income for the country and its population. This indicates that such a country has made the so-called demographic transition, resulting in what is conventionally referred to as demographic dividend.

Recognizing that demographic transition needs to be observed and planned for to enable the economy to reap the demographic dividend, the Philippine Development Plan 2017-2022 devotes this chapter on it. It spells out the key challenges and corresponding strategies to ensure that as the demographic window opens, more of the country's population will steadily have good health and the right sets of skills to be highly productive. This is a condition that boosts economic growth and poverty reduction. Optimizing the demographic dividend is one of the key strategies to be implemented at the national and sub-national levels, under the national development pillar of *Patuloy na Pag-unlad* or raising the economy's potential growth.

Reaping the Demographic Dividend

Demographic dividend stems from demographic transition when fertility (birth) and mortality (death) rates decline, such that the age distribution changes to an extent that lesser spending is required to meet the needs of the youngest and oldest age groups. This frees up the resources for investment in economic development and family welfare.[1] Demographic dividend therefore is a benefit, a windfall that is good for the economy and society.

Economies in East Asia (South Korea, Taiwan, and Hong Kong) began to reap this dividend as early as the 1980s, as did Singapore and Thailand in the 1990s, and Indonesia and Malaysia in the early 2000s. What is noteworthy is that, apart from reasonably good economic policies, all these countries have modern family planning (FP) programs beginning in the late 1960s to early 1970s and sustained over time. The Philippines, although it started its FP program in 1969, discontinued the program in the late 1970s due to strong opposition from conservative groups.

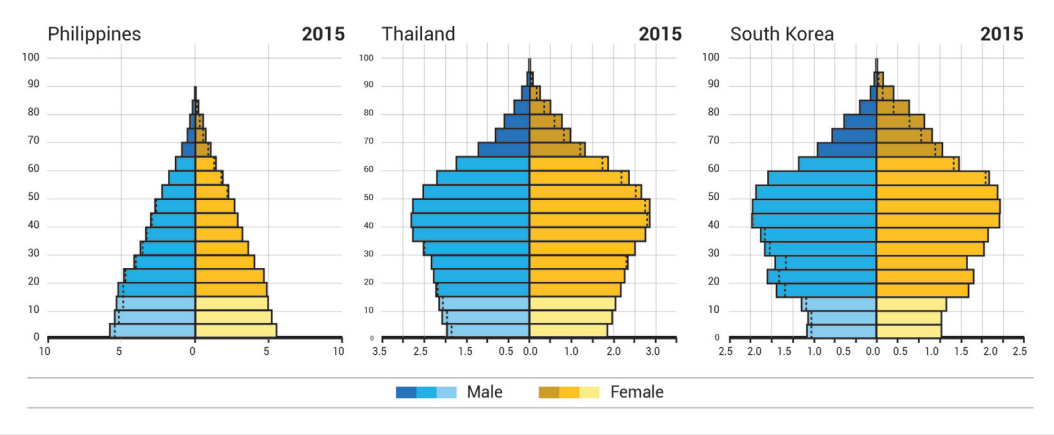
The Philippines is therefore only in the first phase of demographic transition characterized by a large proportion of

[1] Ross, John. 2004. *Understanding the Demographic Dividend:* POLICY Project, Futures Group. Retrieved from http://www.policyproject.com/pubs/generalreport/Demo_Div.pdf

the population in the under-15 years age bracket and with households having a large dependency burden.[2] The shift to the second phase, that is, a bigger proportion of the working age population vis-à-vis dependents, will depend on how the country manages population growth through the Responsible Parenthood and Reproductive Health (RPRH) Law. *Figure 13.1* shows how the Philippines' population pyramid by age compares with those of Thailand and South Korea.

A business-as-usual scenario means that the country needs to wait until at least 2050 to benefit from the demographic dividend, or possibly even miss it altogether. Full implementation of the RPRH law, coupled with adequate investment in the youth's human capital, on the other hand, will enable the country to reap the dividend starting possibly in the 2030s through the 2040s.

Figure 13.1 Population Pyramids: Philippines, Thailand, and South Korea, 2015



Source: esa.un.org

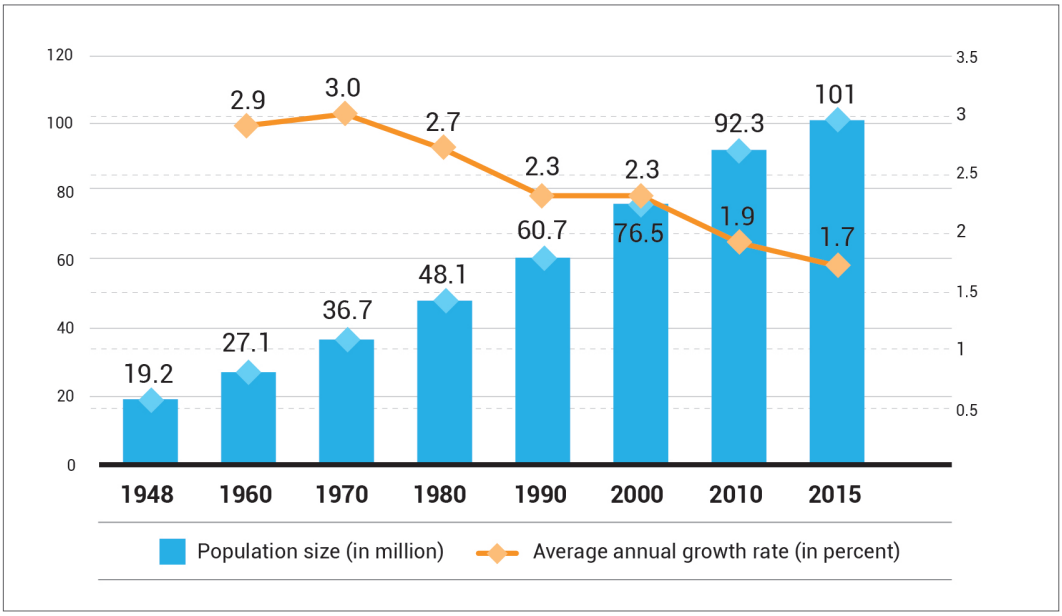
Assessment and Challenges

Several factors associated with changes in the size, structure, and attributes of the country's population affect the prospects for reaping the demographic dividend. These include population growth rates and distribution, health, education, employment, and finances. The country faces a number of challenges in these areas, and they need to be addressed.

The number of Filipinos continues to increase and the population is unevenly distributed across regions. The latest Population Census recorded about 101 million Filipinos living in the country in 2015. While the pace of growth is slowing – from 1.9 percent annual growth rate in 2000-2010 to 1.7 percent in 2010-2015 – the population continues to grow significantly, with about 2 million Filipinos added to the population every year. *(Figure 13.2)*

[2] Mapa, Dennis. 2016. *Demographic Sweet Spot and Dividend in the Philippine: The Window of Opportunity is Closing Fast*. Unpublished manuscript, Quezon City: University of the Philippines School of Statistics

Figure 13.2 Trends in Population Size and Population Growth Rate: Philippines, 1948-2015



Source: Philippine Statistics Authority. Census of Population 2015

Regional differences in population size and growth are likewise noticeable based on the 2015 Population Census. Among the 17 administrative regions, CALABARZON (Region 4A) has the largest population with 14.4 million, followed by the National Capital Region (NCR) with about 12.8 million and Central Luzon (Region 3) with approximately 11.2 million. About one-third of Filipinos live in these three highly-urbanized regions, which can now be called a mega-urban regional agglomeration.

The regional patterns of population growth that drive changes in regional age structures are linked to inequality in opportunities and outcomes. Economic opportunities are concentrated in a few regions, notably NCR, Central Luzon, and CALABARZON, where social conditions and development outcomes are better than other regions. Their relatively better performance compared with the rest of the regions is a product of geography and initial resource endowments. Public policies also influence the level and range of economic opportunities, the pace of social transformation, and the population movements in response to these economic and social developments.[3]

[3] Herrin, Alejandro. 2015. *Population, Inclusive Growth and Shared Development: Regional Profiles*. Commission on Population (POPCOM)

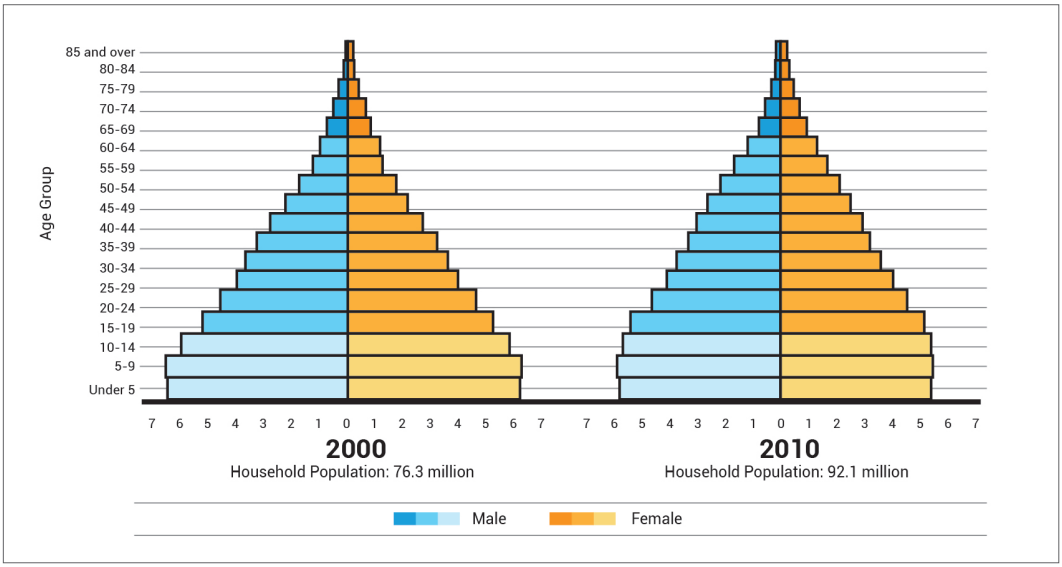
Table 13.1 Trends in Population Size by Region: Philippines, 2010 and 2015

REGION	2010	2015
NCR	11,855,975	12,877,253
CAR	1,616,867	1,722,006
Ilocos Region (I)	4,748,372	5,026,128
Cagayan Valley (II)	3,229,163	3,451,410
Central Luzon (III)	10,137,737	11,218,177
CALABARZON (IVA)	12,609,803	14,414,774
MIMAROPA (IVB)	2,744,671	2,963,360
Bicol Region (V)	5,420,411	5,796,989
Western Visayas (VI)	7,102,438	4,477,247
Central Visayas (VII)	6,800,180	6,041,903
Negros Island Region		4,414,131
Eastern Visayas (VIII)	4,101,322	4,440,150
Zamboanga Peninsula	3,407,353	3,629,783
Northern Mindanao (X)	4,297,323	4,689,302
Davao Region (XI)	4,468,563	4,893,318
SOCCSKSARGEN (XII)	4,109,571	4,545,276
ARMM	3,256,140	3,781,387
CARAGA (XIII)	2,429,224	2,596,709

Source: PSA, 2015 Population Census

Young Filipinos continue to form the base of the country's population age structure. Based on the 2010 population census, about 33.4 percent or 30.7 million Filipinos were below 15 years of age; 60.3 percent were between 15 to 64 years old (comprising the working or productive ages); and 4.2 percent were aged 65 and over. Having a young population means a continuing increase in population due to the large cohorts of young women who will soon enter the childbearing years and contribute to the fertility level in the country (population momentum). This also explains the large number of young dependents. In 2010, there were about 54 young dependents (14 years and below) and seven old dependents (65 years and above) for every 100 persons of working age (15-64 years old). Since not all in the working ages are engaged in productive labor (i.e., some are studying and others are unemployed), the real (economic) dependency ratio would be much higher than the age dependency ratio.

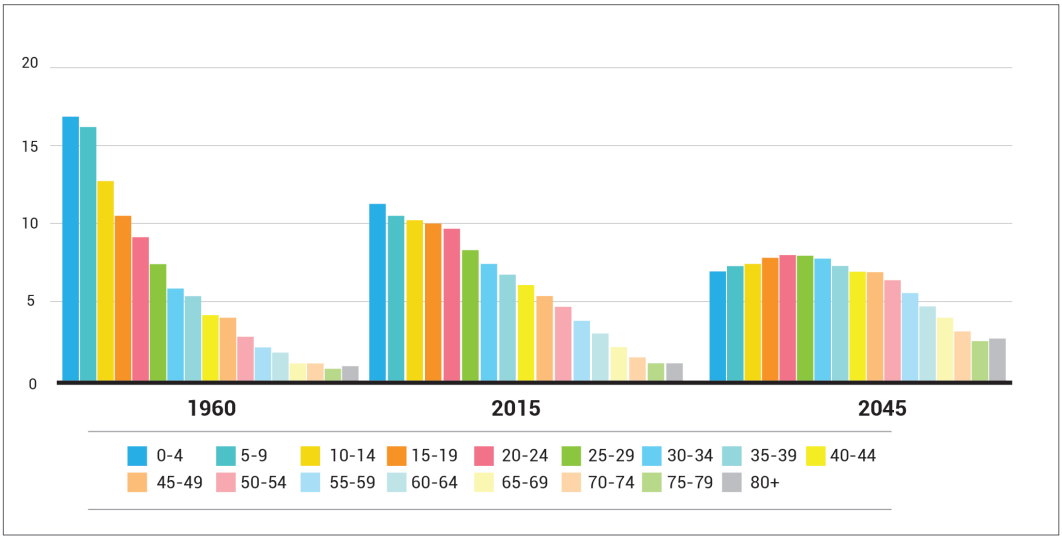
Figure 13.3 Population Distribution by Age Group and Sex: Philippines, 2000 and 2010



Source: Philippine Statistics Authority. Census of Population and Housing 2000 and 2010

The older population in the country is still a small fraction but slowly growing. In 2010, Filipinos aged 60 and older accounted for 6.2 percent of the country's population, almost the same level as in 2000. However, while ageing prevalence in the Philippines may be relatively low, the proportion of the elderly to the total population is expected to reach a double-digit mark in 2020 assuming a moderate fertility and mortality decline. Females, who have a higher life expectancy, constitute the majority (55%) of the elderly population.

Figure 13.4 Percent Distribution of Population by Age Group, 1960, 2015, and 2045

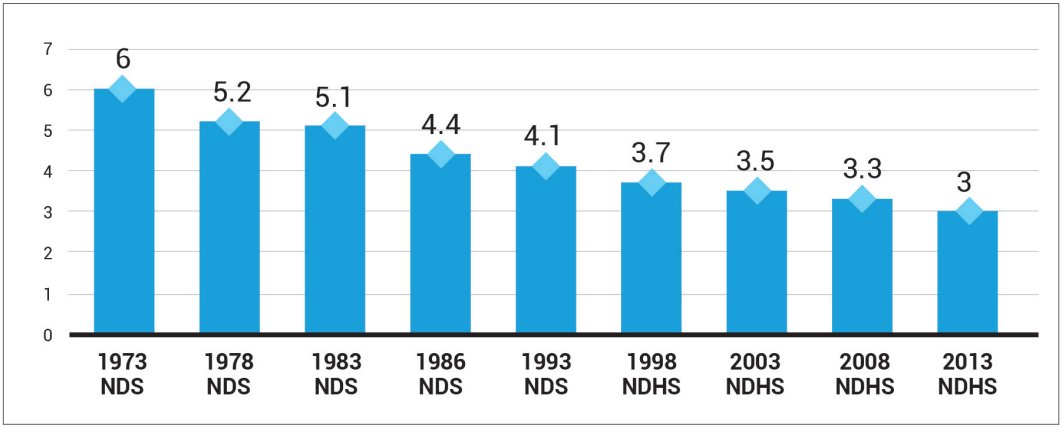


Source: Philippine Statistics Authority. Census of Population and Housing 2000 and 2010, and 2010-Based Population Projections

Albeit slow, the declines in fertility since the 1960s have changed the age structure of the national population *(Figures 13.2 and 13.3)*. The proportion of the young age group (0-14 years) has declined from 45.7 percent in 1960 to 32 percent in 2015, while the proportion of the working age group (15-64) years has increased from 52 percent in 1960 to 63 percent in 2015. Further shifts in the age structure are expected as fertility decline accelerates.

The demographic transition is slow because fertility rate remains high. The demographic transition is described as a change from a situation of high fertility and high mortality to one of low fertility and low mortality. In the Philippines, the demographic transition is at a stage where mortality is relatively low but fertility remains high. Based on the 2013 National Demographic and Health Survey (NDHS), every woman of reproductive age (15 - 49) has about three children within the duration of her childbearing years given the prevailing age-specific fertility rates in that year. While the actual fertility level reflects a modest improvement from the 1970s level (6 children), it has stagnated since 1996, with the latest figure at 3 children in 2013. More important, the latest TFR is higher by 1 child compared to the replacement fertility level of 2.1 children.

Figure 13.5 Trends in the Total Fertility Rate:[4] Philippines, 1973-2013



Source: PSA, 2000 and 2010 Population Census, and 2010-Based Population Projections

The current fertility rate in the Philippine remains one of the highest in East Asia *(Table 13.2)*. Rich countries that have gone through, and poor countries racing through, the demographic transition and that were able to achieve the replacement fertility rate of 2.1 include Singapore in the mid-1970s, South Korea in mid-1980s, Thailand in 1990, Vietnam and Myanmar in 2006. It is interesting that only three countries in *Table 2* have TFRs of about 3.0 in 2013: the Philippines (3.0), Lao PDR (3.0), and Cambodia (2.9). [5]

[4] Fertility rate refers to the number of births per 1000 women of reproductive age (15 to 44 years)
[5] Mapa, Dennis. 2016. *Demographic Sweet Spot and Dividend in the Philippine: The Window of Opportunity is Closing Fast*. Unpublished manuscript, Quezon City: University of the Philippines School of Statistics.

Table 13.2 Trends in Total Fertility Rate: ASEAN and Korea, 1960-2013

COUNTRY	YEAR						
	1960	1970	1980	1990	2000	2006	2013
South Korea	5.7	4.5	2.8	1.6	1.5	1.1	1.2
ASEAN 5							
Singapore	5.5	3.1	1.7	1.9	1.4	1.3	1.2
Thailand	6.4	5.3	3.2	2.1	1.9	1.9	1.4
Indonesia	5.5	5.4	4.4	3.1	2.4	2.2	2.3
Malaysia	6.8	5.5	4.2	3.7	3.0	2.7	2.0
Philippines	7.0	6.2	5.2	4.3	3.6	3.3	3.0
Rest of SE Asia							
Vietnam	6.1	5.9	5.0	3.6	1.9	2.1	1.7
Myanmar	6.1	6.0	4.5	3.4	2.4	2.1	1.9
Brunei	6.8	5.6	4.0	3.2	2.6	2.3	2.0
Cambodia	6.3	5.8	5.8	5.7	4.0	3.3	2.9

Source: Cited in Mapa, 2016

Poor and less-educated women have more children than they want. Overall, Filipino women have one child more than what they wanted. However, poor and less-educated women tend to have two children more than what they want. The difference between the actual and wanted number of children among the poor and less educated and among those in the upper socioeconomic categories as shown in *Table 13.3* remains large and untenable.

Table 13.3 Actual and Wanted Fertility by Education and Wealth Index Quintile

BACKGROUND CHARACTERISTICS	TOTAL FERTILITY RATE (CHILDREN)	TOTAL WANTED FERTILITY RATE
Education		
No education	3.8	3.0
Elementary	4.6	3.1
High school	3.3	2.3
College	2.1	1.7
Wealth Quintile		
Lowest	5.2	3.3
Second	3.7	2.5
Middle	3.1	2.2
Fourth	2.4	1.9
Highest	1.7	1.4
Total	**3.0**	**2.2**

Source: NSO, 2013 NDHS

Closing the gap between the actual and wanted fertility rates means enabling women to exercise their reproductive rights. However, the challenge seems huge because poverty continues to constrain poor and uneducated women who have higher actual and wanted fertility rates.

The number of girls getting pregnant and giving birth for the first time at a young age has been increasing. Another significant driver of high fertility in the country is the increasing teenage pregnancies or young age at first birth. Early initiation of childbearing lengthens the reproductive period and subsequently increases fertility. Based on the 2013 NDHS, the median age at first birth is 23.5 years. More than one-fifth of women in the country give birth before reaching age 20. Moreover, the 2013 Young Adult Fertility and Sexuality Survey[6] conducted by the Demographic Research and Development Foundation (DRDF) noted an increasing proportion of adolescents aged 15-19 who have begun childbearing – from 6 percent in 2002 to 13.6 percent in 2013.

Women having more children than they wanted indicates a high unmet need for family planning. The high fertility level especially among poor women is mainly because of the low level of access to family planning commodities such as contraceptives. Only a third of women belonging to the lowest wealth quintile use modern contraceptives (33 percent modern contraceptive prevalence rate). More than 21 percent of these poor women have unmet need for family planning (i.e., they intend to limit or space their children but are not using any family planning method). Only 16 percent of women without education are using modern family planning methods and a high 24 percent have expressed unmet need for family planning.

Table 13.4 Contraceptive Prevalence Rate and Unmet Need for Family Planning by Background Characteristics: Philippines, 2013

BACKGROUND CHARACTERISTICS	CONTRACEPTIVE PREVALENCE RATE (MODERN METHOD)	UNMET NEED FOR FP
Education		
No education	16.1	23.5
Elementary	36.1	17.9
High school	40.1	17.8
College	35.9	16.4
Wealth Quintile		
Lowest	33.0	21.3
Second	40.3	16.7
Middle	41.4	15.5
Fourth	39.1	16.1
Highest	34.0	17.9
Total	**37.6**	**17.5**

[6] Demographic Research and Development Foundation (DRDF). 2013. *Young Adult Fertility and Sexuality Survey (YAFSS)*

There are legal barriers to the full implementation of the Responsible Parenthood and Reproductive Health Law. While the RPRH Law has been enacted and affirmed as constitutional, the full implementation of the law is blocked by a temporary restraining order (TRO) on the distribution of implants and certification / re-certification of modern artificial FP commodities. The TRO affected the access of people, particularly of the poor because national and local governments are constrained in providing the widest range of free FP commodities and services. If not lifted immediately, the TRO will cause the non-availability of most of the modern FP commodities starting 2018.

Inequities remain in nutrition and health outcomes. While there have been major improvements in the health conditions of Filipinos as indicated by increasing life expectancy rates and low mortality and morbidity rates, inequities remain across regions, population and income groups. Among the regions, conflict-affected and disaster-prone areas experienced poorer health outcomes. ARMM lagged in most health indicators[7] and regions exposed to multiple hazards (i.e. Zamboanga Peninsula and CARAGA[8]) fared worse in some indicators compared to the national average.

Disparities in nutrition and health outcomes are evident across income classes. Families in the lowest wealth quintile suffer from a higher prevalence of underweight children and higher infant and under-five mortalities. This has implications on the quality of human resources in the future. Likewise, population with little to no education also have poorer health outcomes, because they lag behind in nutrition and health indicators.

Access to education has been uneven and completion rate is low. Acquiring new knowledge and skills allows the workforce to become more productive, thereby increasing their incomes and improving their quality of life. Thus, education is a critical input in optimizing the demographic dividend.

While enrolment rates have improved *(see also Chapter 10)*, access to education and keeping children in school remain to be a challenge. FLEMMS 2013 data showed that 11.5 million of 6- to 24-year-olds are not in school. Marriage was cited as one of the reasons for not attending school among 16 to 24 years old. Across regions, out-of-school children and youth was most prevalent in Mindanao, particularly in ARMM, SOCCSKSARGEN, and Davao.

Meanwhile, data on highest educational attainment showed that of the 81.9 million population in 2013, only 20 percent have completed secondary education. There were slightly more females than males finishing high school. Regional data showed that ARMM has the lowest proportion of high school graduates, followed by Zamboanga Peninsula and SOCCSKSARGEN.

Youth unemployment is extremely high. Unemployment rate among 15-24-year-olds is more than twice the overall unemployment rate. In addition, the share of youth not in education and not in employment in the total young working population is 22.1 percent *(see also Chapter 10)*. This has serious implications, as the demographic dividend will largely depend on a productive working-age population.

[7] ARMM lagged in under-five mortality, contraceptive prevalence rate, proportion of births attended by health professional, births delivered in a health facility, and proportion of population with access to safe water based on the 2013 National Demographic and Health Survey.
[8] In infant and under-five mortality, proportion of births attended by health professional, and births delivered in a health facility based on the 2013 National Demographic and Health Survey.

Saving rate in the country is low. The country's gross national saving-to-GDP ratio stands at 29.9 percent as of the third quarter of 2016. Capital accumulation facilitates economic growth, which will be an important factor in maximizing the demographic dividend, and even creating a second demographic dividend. However, saving behavior is quite shallow. The BSP estimates that only 22 percent of adults have a formal savings account.

Strategic Framework

To achieve the overall PDP goal of laying a strong foundation for inclusive growth, a high-trust society, and a globally-competitive knowledge economy, the country's potential growth must be increased. This will be done by accelerating the demographic transition of the country into the low mortality and fertility levels that can facilitate the shift in the population age structure to a point where the working age population comprises the bulk – also called the demographic window of opportunity. Once the demographic precondition of this phenomenon is reached, the county will aim to maximize its potential dividend for economic growth.

Targets

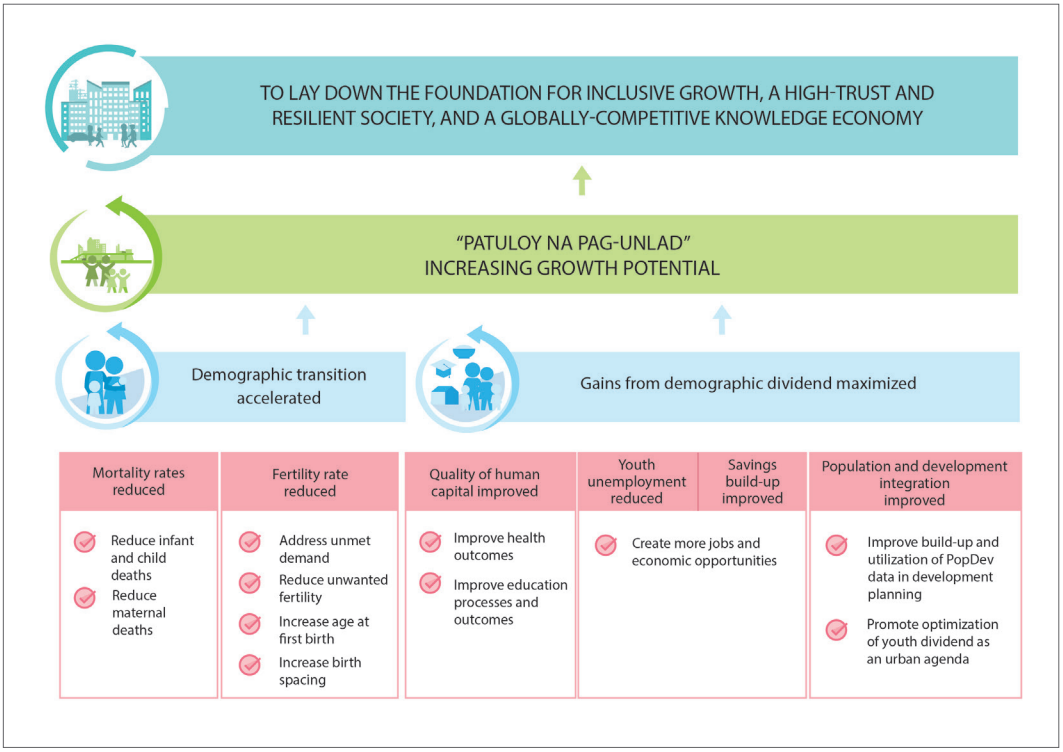
Table 13.5 shows the indicators and targets for the plan period 2017-2022 to maximize the demographic dividend.

Table 13.5 Plan Targets to Maximize the Demographic Dividend

INDICATORS	BASELINE (2016)	ANNUAL PLAN TARGETS 2022
Sector Outcome 1: Accelerate demographic transition		
Reduced crude death rate		
Reduced Total Fertility Rate (children)	3	2.1
Reduced proportion of adolescents who have begun childbearing	13.6%	6%
Increased contraceptive prevalence rate for modern FP	37.5%	65%
Sector Outcome 2: Maximize gains from the demographic dividend		
Maternal mortality ratio per 100,000 live births	114	90
Under-five Mortality Rate per 1,000 live births (2013)	27	22
Prevalence of stunting among children under 5	33.4%	20%
Reduced youth unemployment	11%	8%

Strategies

Figure 13.6 Strategic Framework to Maximize the Demographic Dividend



The following strategies will be pursued to speed up the demographic transition and maximize potential gains from the demographic dividend:

Subsector Outcome: Mortality rates reduced

To attain a low rate of mortality that can facilitate demographic transition, the government will pursue a sustained universal health care program. The focus will be on lowering mortality rates, which are currently highest among infants, young children, and women. Other health strategies will also be done to reduce mortality rates. *See Chapter 11.*

Subsector Outcome: Fertility rates reduced

To lower the fertility level, the country's population management and reproductive health policies and programs will be strengthened. The main strategy will be to assist couples and individuals to achieve their desired family size within the context of responsible parenthood and informed choice in order to achieve population outcomes that are facilitative of economic growth.

Address unmet demand for family planning and unwanted pregnancies. The government, together with all stakeholders, will collectively aim to attain zero unmet need for modern family planning, mainly through the full and aggressive implementation of the Responsible Parenthood and Reproductive Health Act (RA 10354), the Magna Carta of Women (RA 9710), the National Population Policy (PD 79, s. 1972) and other relevant national interventions that promote the reproductive rights of Filipinos. Demand-generation strategies including advocacy for increased local government counterpart resources and funding will be intensified to ensure improved access of all Filipinos to the widest range of family planning methods.

Attention will also be given to the improvement of the socio-economic conditions of poor women in urban communities and geographically isolated and disadvantaged areas (GIDAs), including indigenous women. As women are generally the poorest of the poor and at the same time key actors in the development process, eliminating social, cultural, political and economic discrimination against them is a requisite for development, which involves: eradicating poverty; promoting sustained economic growth in the context of sustainable development; ensuring quality family planning and reproductive health services; and achieving balance between population, available resources, and sustainable patterns of consumption and production.

Men's involvement and civil society and private sector engagement will likewise be encouraged to mobilize all stakeholders in the promotion of universal access to modern family planning methods. Service delivery networks for maternal and adolescent health and family planning will be strengthened to ensure the continuum of reproductive health care, particularly family planning.

Increase the age at first birth. Strategies to increase the age at first birth or maternal age will be anchored on the promotion of age-appropriate and comprehensive sexuality education among adolescents. This approach will enable them to exercise responsible sexuality to prevent early pregnancies. Reproductive health education will be pursued in curricular and extra-curricular modalities in schools, communities, and workplaces. Communication strategies for responsible sexuality education will use social media and other online networks to reach out to various segments of young people, especially the adolescents.

In compliance with the reproductive health law, age-appropriate reproductive health services, including family planning, will be provided to sexually-active adolescents and those who had their first birth in order to prevent unwanted repeat pregnancies. For this purpose, information and service delivery networks for adolescent health and development will be established and strengthened at the local level to ensure a continuum of care for young people.

The role of parents, teachers, and adults in guiding their adolescent children toward responsible sexuality will also be strengthened through institutionalized capacity-building. Partnerships with civil society organizations and youth organizations will be strengthened for a more coordinated implementation of adolescent health and development interventions.

Increase birth spacing. Proper birth spacing of three to five years will be promoted to lower fertility levels among women. Proper birth spacing likewise facilitates the demographic dividend in households and among individuals. With birth spacing that results in lower fertility, women have greater chances of productively participating in the labor force and in human resource formation activities such as education and training. They can spend more of their productive years in gainful or paid employment. Moreover, parents with fewer

young dependents are more able to invest in the formation of their children, who comprise the future human resources of society. The promotion of birth spacing will be integrated in the promotion of reproductive health and family planning interventions.

Subsector Outcome: Quality of human capital improved

Optimizing the increasing labor force for more productive economic output requires a quality human resource. Thus, it entails the improvement of health, education, and total wellbeing of the human capital. *See Chapter 10.*

Improve health outcomes. Increased investments in health initiatives can significantly support human capital formation or development by ensuring that children are healthy when they go to school, that members of the labor force are productive, and members of the family can enjoy the fruits of their labor. The government will therefore: (a) guarantee services that will provide care at all life stages; (b) ensure the accessibility of these services in functional delivery networks; and (c) sustainably finance these services through universal health insurance.

Improve education processes and outcomes. An educated and skilled labor force is an equally important requirement for the optimization of demographic dividend. Reforms in the basic and higher education curriculum were done to adapt to current realities. The K to 12 curriculum integrates lessons on sexuality education to help students make informed choices and decisions on issues that affect their well-being. Meanwhile, the new general education curriculum in higher education aims to develop learners' intellectual competencies, personal and civic competencies, and practical skills.

Given the growing labor force, more investments for the improvement of educational services and facilities will be made. Without substantive investment in education, the lack of schools and teachers will significantly affect the quality of education and, eventually, the quality of the labor force.

Interventions to address issues on education will be simultaneously implemented with the initiatives to address population issues. Improving the education of girls, especially at the secondary level, helps delay marriage and prevent teenage pregnancy. Women who marry later tend to have fewer children than those who marry at a young age.

Subsector Outcome: Youth unemployment reduced

Create jobs and economic opportunities. The optimal use of a large and quality human resource is a critical strategy for maximizing demographic dividend. For this, job creation in the industrial, agricultural and service sectors will be facilitated by the government, in collaboration with the private sector. This will be done through the establishment of a more favorable climate for expanded trade and investment that is environmentally sound; greater investment in human resource development; development of democratic institutions; and good governance. Special effort will be made to create productive jobs through policies promoting efficient and, where required, labor-intensive industries, and transfer of modern technologies.

In support of the administration's thrust to create one million new jobs annually, the government will pursue initiatives through major employment-promoting strategies: (a) employment generation; (b) employment preservation; (c) employment facilitation; and (d) employment enhancement. Programs supporting employment generation have been pursued to directly or indirectly create

new employment opportunities in the domestic labor. Employment programs for the youth will also include support to young parents as part of social protection. Improving the living wage of young workers, especially those with young children to support, will be prioritized.

Subsector Outcome: Savings build-up encouraged

The government will assist couples and individuals in achieving their desired fertility intention as part of responsible parenthood. As financial capacity is important, the government will encourage savings build-up at the micro-meso-macro levels. With fewer children, couples can save more from the expenses for the health, education, and total well-being of children. Early pregnancy has economic implications particularly on savings. Financial inclusion strategies such as the efficient delivery of microfinance and micro-insurance products and services will be implemented. *See Chapter 15.*

Subsector Outcome : Integration of population and development (PopDev) strengthened

There is general agreement that persistent and widespread poverty and serious social and economic inequities have a significant influence on, and are in turn influenced by, demographic parameters such as population growth, structure and distribution. To ensure that demographic dynamics particularly those related to demographic dividend are considered in sustainable economic and other development initiatives, the integration of population factors in all development initiatives will be promoted.

Establish and utilize population and development data in planning and program formulation. Demographic data needed for planning and formulating appropriate interventions to optimize demographic dividend will be strengthened at all levels. The use of population data will be promoted particularly in planning interventions in health, education, employment, infrastructure, and economic development. Development strategies will reflect the short-, medium-, and long-term implications of, and consequences for, population dynamics as well as patterns of production and consumption. Specific strategies will include the following:

- Capacity building of national, regional, and local government institutions in establishing and utilizing a demographic and socioeconomic database in development planning. This includes strengthening the local survey systems for demographic and socioeconomic data to be conducted by local population and planning offices. The survey systems will support local development planning and program development initiatives.

- Improving the knowledge base on population and development interrelationships through continuing research and studies

- Building public awareness and political commitment to address population issues that have implications on development concerns

Promote optimization of youth dividend as part of urban agenda. The prospect of demographic dividend is more pronounced in the urban areas because of youth migration to cities. Because internal migration is economically-motivated, urban areas remain the main destination of migrants because of the perceived availability of economic opportunities in the cities (pull factor). Cities usually receive the

bulk of new entrants to the labor force and the concomitant pressure to employ these workers.

As such, initiatives to optimize demographic dividend entails improving the capacities of cities to employ the vast human resources that they receive. This involves a review of urban management initiatives to integrate strategies for the optimization of demographic dividend as an urban agenda. Such agenda, nonetheless, will be pursued within the framework of an integrated and interdependent urban-rural development. Demographic interventions will also be developed to address the declining number of human resources in the rural areas.

Legislative Agenda

Legislative support will be required for the effective implementation of the strategies.

Table 13.6 Legislative Agenda to Maximize Demographic Dividend, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Institutionalization of Local Population and Development Policy	There is a need to have a cohesive policy in addressing population and development at the local level.
National Policy on the Prevention of Teenage Pregnancy	The alarming levels of teenage pregnancy requires a comprehensive policy to address the problem at all levels of government.
Strengthening of the National Population and Development Policy	A comprehensive policy for population and development will address the fragmentation of government efforts and initiatives for population and development. It will ensure that population and development is mainstreamed.

14 Vigorously Advancing Science, Technology, and Innovation

Chapter 14

Vigorously Advancing Science, Technology, and Innovation

Science, Technology and Innovation (STI) plays an important role in economic and social progress. It is a key driver of the long-term growth of an economy.

Technology adoption allows the country's firms and people to benefit from innovations created in other countries, and allows it to keep up and even leap frog obsolete technologies. This can lead to significant improvements in the productivity of firms in agriculture, industry, and services.

On the other hand, long-term investments in building the local capacity for technology generation can lead to innovations that will give firms a competitive advantage. This can result in the creation of new firms and even entirely new industries that can provide high-quality jobs. Due to the long gestation period for developing this capacity, it is important to start planting the seeds early.

Just as important, STI can lead to the creation of new public goods and services (or new methods of delivering public goods and services) that will help address the needs of society, especially of the disadvantaged, including in the areas of health, education, energy, disaster resiliency, and climate change adaptation, among others.

This chapter discusses the priority strategies and outcomes needed to increase the country's potential growth though innovation, which will build the foundation for a globally competitive knowledge economy.

Assessment and Challenges

There is a low level of innovation in the country brought about by weaknesses in STI human capital, low research and development (R&D) expenditures and weak linkages in the STI ecosystem. In the Global Innovation Index[1] (GII) Report of 2016, the Philippines ranked 74th among 128 economies in innovation[2], garnering a score of 31.8 out of 100. This is a slight improvement from the score of 31.1, ranking 83rd out of 141 economies in 2015.

The country also ranked 5th out of the seven members of the Association of Southeast Asian Nations (ASEAN) in the survey, ahead of Cambodia (95th) and Indonesia (88th), but behind Singapore (6th), Malaysia (35th), Thailand (52nd), and Vietnam (59th).

[1] The Global Innovation Index captures the multi-dimensional facets of innovation in 128 economies. The index is composed on seven pillars namely: institutions, human capital & research, infrastructure, market sophistication, business sophistication, knowledge & technology outputs and creative outputs. It is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO).

[2] The overall GII is the simple average of the input and output sub-index scores.

The factors behind the weak performance of the STI sector are as follows:

Weak STI culture. There is a lack of public awareness and interest in STI. Many sectors do not recognize, appreciate, and understand the use of technology and science-based information in their daily activities. Weaknesses in social and professional cultures (i.e., research culture in universities, commercialization of results from public research, and awareness of intellectual property rights) in the research community and the general public persist.

Despite their availability, there are reports that the technologies are not widely used among micro, small, and medium enterprises (MSMEs) and sectors like agriculture and fisheries. This can be attributed to the lack of awareness on the available technology outputs (technologies, processes, or services) derived from public R&D activities, and the various government incentives to support innovation and further spur its growth. Other reasons are weak links between technology generators and users, capacity constraints of users, and inadequate local government unit support.

Low government spending on STI. Investments in R&D are central to enhancing the country's innovation ecosystem. STI monitoring and evaluation of expenditures on R&D and innovation activities, as well as support for human resources development in the various fields of science and technology (S&T) indicates low government spending.

While nominal R&D expenditures increased by 80 percent to P15.92 billion in 2013, the proportion of R&D spending to Gross Domestic Product (GDP) stood at only 0.14 percent. This is substantially below the 1 percent benchmark recommended by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the global average of 2.04 percent. It is also low compared to other ASEAN countries, such as Vietnam (0.19 %), Thailand (0.36%), Malaysia (1.09%), and Singapore (2.0%)[3].

The country's relatively low ranking in the GII Report was pulled down by weaknesses in human capital and R&D, with a score of 22.7 out of 100, ranking 95th. This is due to the low public and private expenditure on education and R&D, as well as low tertiary inbound mobility[4].

The bulk of R&D spending (60%) comes from the public sector. This was used for agricultural and industrial production and technology, protection and improvement of human health, control and care of the environment. Most of the R&D activities in the country are concentrated in the National Capital Region (NCR), Region IV-A (CALABARZON), and Region III (Central Luzon).

Inadequate S&T human resources engaged in STI R&D. Another indicator measuring the capacity for technology generation is the number of S&T human resources engaged in R&D. As of 2013, the country has a total of 36,517 R&D personnel, of which 26,495 are key researchers (scientific, technological, and engineering personnel), and the rest are technicians and support personnel. This means that there are only 270 researchers for every one million Filipinos, which falls short of the UNESCO norm of 380 per million population and the 1,020 researchers per million population average across developing economies of East Asia and the Pacific.

Of the total researchers in the country from the government, higher educational institutions (HEIs) and private non-profit sectors, 14 percent have PhDs, 38 percent have Master's degrees, and 34 percent have Bachelor of Science (BS) degrees up to post-

[3] UNESCO Institute for Statistics. Retrieved from http://data.uis.unesco.org

[4] Tertiary inbound mobility refers to the number of students from abroad studying in a given country, as a percentage of the total tertiary enrolment in that country.

BS degrees. The low number of researchers in the country reflects the propensity of the educational system to produce graduates outside of Science, Technology, Engineering, and Mathematics (STEM) programs, which are the disciplines where R&D flourishes. Nevertheless, the latest GII Report indicates that in terms of graduates in science and engineering, the country garnered a score of 25.5 out of 100, ranking 26th.

Difficulty in increasing employment opportunities and retaining S&T human capital. An assessment of the country's innovation system conducted by the United States Agency for International Development-Science, Technology, Research and Innovation for Development (USAID-STRIDE) Program revealed that the supply of STEM graduates exceeds local demand. As a result, there is an out-migration and underemployment of many skilled, locally-trained scientists and engineers. The report also cited a shortage in training in fields that are critical to innovation, particularly in information technology. This situation makes it difficult for firms to find workers with the required skills.

Brain drain contributes to the problem as researchers, scientists, and engineers, who are the key actors for the innovation ecosystem to flourish, prefer to seek employment overseas where there are better economic opportunities and potential for advancement. Since knowledge and technology are mostly embodied in human resources, the problem stresses the urgency to accelerate the development of R&D human resource.

Absence of a vibrant intellectual property culture. The output of R&D is commonly measured in terms of patents applied and granted to Filipino residents. However, reports show that many universities do not have the expertise to market their patent portfolios for commercial use. Furthermore, technology generators face persisting issues in technology ownership, while researchers are constrained by the "publish or perish" phenomenon. This situation results in a weak technology transfer system in the country.

From 2005 to 2015, there was an annual average of 209 patents, 599 utility models and 598 industrial design applications. In the same period, an annual average of 54 patents, 446 utility models, and 502 industrial designs were granted. In 2016, the World Economic Forum (WEF) ranked the Philippines 86th out of 128 economies in the number of patents filed under Patent Cooperation Treaty per million population. Invention patents granted to local inventors represent the smallest share in the number of intellectual properties granted from 2001 to 2013. Industrial design and utility models consistently comprise the majority of the intellectual properties granted.

The country also needs to catch up in research publications since the number of scientific publications in peer-reviewed journals per million population stands at 55, substantially below that of ASEAN member states Singapore (10,368), Malaysia (1,484), Thailand (478), and Vietnam (105).

Weak linkages among players in the STI ecosystem. The 2009 Survey of Innovation Activities and the 2014 USAID-STRIDE Assessment of the Philippine Innovation Ecosystem show that innovation actors have weak cooperation, partnerships, and trust among them. Most HEIs perceive collaboration with companies as outside their core missions and as potential exploitation of their product or ideas. Firms report that convincing HEIs to collaborate with them is difficult because of resentment, suspicion, and distrust. Hence, firms end up with little technical assistance from the government and research institutions.

Restrictive regulations that hamper the implementation of R&D programs and projects. The tedious government procurement process hampers the immediate acquisition of equipment and other materials for research, which in turn delays the implementation of R&D programs and projects. This was confirmed by the USAID-STRIDE study, which shows that restrictive regulations make the procurement of equipment and consumables for research extremely slow and unnecessarily complex. They decrease research productivity, publication potential, and speed to market innovations. In addition, the report says that government research grants do not compensate universities for the salary of faculty members' research activities. This practice is rarely seen outside the Philippines.

Inadequate STI infrastructure. The country does not have enough STI infrastructure such as laboratory facilities, testing facilities, and R&D centers. Those that exist need upgrading. The situation contributes to the lack of absorptive capacity in research institutions. The USAID-STRIDE report notes that public institutions failed to provide young researchers, particularly those returning from PhD studies abroad with more advanced research agenda, with the necessary equipment. The Philippines' leading research institutions also remain concentrated in Luzon.

The government continuously engages in technology-intensive research and capacity building projects to improve the quality of its service to the people.

Some successful examples are the following:

Nationwide Operational Assessment of Hazards (NOAH)

- Project NOAH was initiated in June 2012 to help manage the risks associated with natural hazards and disasters. The project developed hydromet sensors and high-resolution geo-hazard maps, which were generated by light detection and ranging technology for flood modelling. It provides timely warning with a lead time of at least six hours during floods.

***Diwata*-1**

- In April 2016, the country launched into space its first micro-satellite called *Diwata*-1. It was designed, developed and assembled by Filipino researchers and engineers, with support from Japanese experts. *Diwata* provides real-time, high-resolution and multi-color infrared images. They are used in meteorological imaging, crop and ocean productivity measurements, and high-resolution imaging of natural and man-made features. It enables a more precise estimate of the country's agricultural production, provides images of watersheds and floodplains for a better view of water available for irrigation, power, and domestic consumption, as well as information on any disturbance and degradation of forest and upland areas.

Intelligent Operations Center Platform

- The Intelligent Operations Center Platform was established through a collaboration between the local government of Davao City and IBM Philippines. The Center resulted in the creation of a dashboard that allows authorized government agencies (i.e., police, fire, and anti-terrorism task force) to use analytics software for monitoring events and operations in real-time.

Establishment of state-of-the-art R&D and testing facilities

The DOST in cooperation with HEIs and research institutions established state-of-the-art facilities that seek to spur R&D activities and provide MSMEs access to testing services needed to increase their productivity and competitive advantage. These include the following:

- **Advanced Device and Materials Testing Laboratories –** equipped with advanced equipment for failure analysis and materials characterization to address advanced analytical needs for quality control, materials identification, and R&D

- **Electronics Products Development Center** – used to design, develop and test hardware and software for electronic products
- **High Performance Computing Facilities** – perform tests and run computation-intensive applications for numerical weather prediction, climate modelling, analytics and data modeling, and archiving
- **Philippine Genome Center** – a core facility that combines basic and applied research for the development of health diagnostics, therapeutics, DNA forensics and preventive products, and improved crop varieties
- **Drug Discovery Facilities** – address the requirements for producing high quality and globally acceptable drugs
- **Nanotechnology Centers** – provides technical services and enabling environment for interdisciplinary and collaborative R&D in various nanotechnology applications
- **Radiation Processing Facilities** – used to degrade, graft, or crosslink polymers, monomers, or chemical compounds for industrial, agricultural, environmental, and medical applications
- **Die and Mold Solutions Center** - enhances the competitiveness of the local tool and die sector through the localization of currently imported dies and molds

Strategic Framework

STI will contribute in the achievement of the overall PDP goal of establishing the foundation for inclusive growth, a high-trust and resilient society and a globally competitive knowledge economy by increasing the country's potential growth. This will be done by promoting and accelerating technology adoption and stimulating innovation. Increasing STI in the agriculture, industry, and services sectors as well as investments in technology-based start-ups, enterprises and spin-offs will result to the promotion and acceleration of technology adoption. On the other hand, enhancing the creative capacity for knowledge and technology generation, acquisition and adoption, and strengthening open collaboration among actors in the STI ecosystem will stimulate innovation *(see Figure 14.1)*.

Targets

Over the next six years, the government will aim to achieve the targets indicated in the following table.

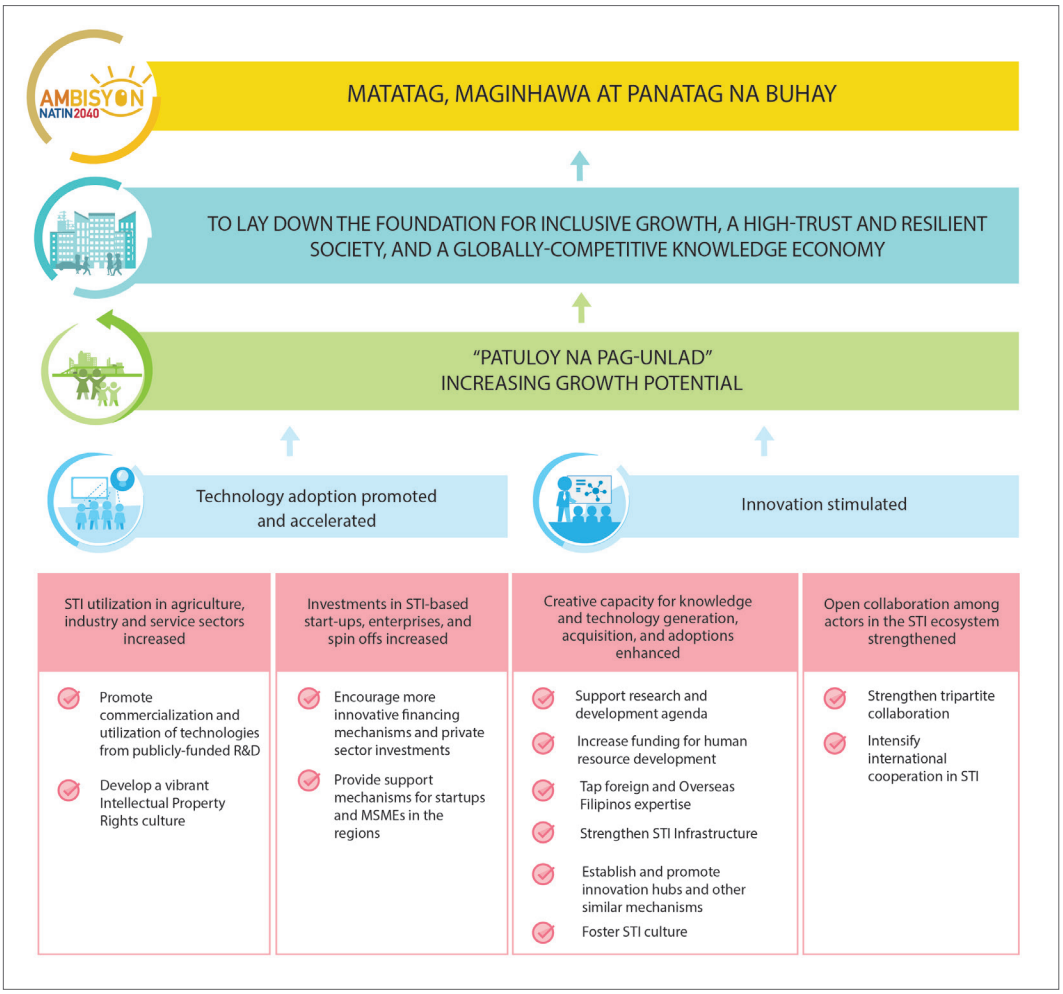
Table 14.1 Plan Targets to Leverage Science, Technology, and Innovation, 2017-2022

INDICATORS	BASELINE		END OF PLAN
	YEAR	VALUE	
Proportion of high-tech agriculture, industry and services value added in sectoral value added_/1		No data	tbd
Share of agriculture forestry and fisheries, and industry & services R&D to sectoral Gross Value Added		No data	tbd
Total number of Filipino patent registered	2016	31	42
Total number of Filipino utility model registered	2016	555	833
Total number of Filipino			
industrial design registered	2016	516	691
Percent of Technology Business Incubations locators that graduated	No data	tbd	tbd
R&D expenditure as a proportion of GDP_/2	2013	0.14	0.50
Researchers (in full time equivalent) per million population_/3	2013	270	300
WEF-Global Competitiveness Report (GCR) Innovation Ranking among ASEAN member countries	2016	5/7	Improved
WED-GCR Technological Readiness Ranking among ASEAN member countries	2016	4/7	Improved
WEF University-Industry Collaboration Index among ASEAN member countries	2016	5/7	Improved
Number of Technology Transfer Agreements	No data		tbd
Number of scientific articles published by Filipino authors	2013		tbd

Strategies

To achieve the sectoral outcomes, the strategies as indicated in *Figure 14.1* will be pursued.

Figure 14.1 Strategic Framework to Leverage Science, Technology, and Innovation 2017-2022



Subsector Outcome 1: STI utilization in the agriculture, industry, and services sectors increased

Promote commercialization and utilization of technologies from publicly-funded R&D. The government will promote and accelerate the dissemination, transfer, commercialization, and utilization of knowledge, technologies, information and processes derived from publicly-funded S&T activities without prejudice to intellectual property rights. Those technologies with high commercial potential shall be given priority assistance. The application of these knowledge, technology, information, and processes to the agriculture, industry, and services sectors will be given priority to improve productivity. This is expected to translate to an increase in incomes and jobs, especially in the countryside. The government will also foster the development of networks and markets, and undertake effective marketing strategies through the extensive use of quad-media and the organization of fora, fairs, and exhibits.

Develop a vibrant Intellectual Property Rights (IPR) culture. The initiative to improve patent applications performance through the Patent Incentive Package will be strengthened. Likewise, the provision of the Philippine Technology Transfer Act of 2009 particularly on ownership and revenue sharing will be institutionalized. Aggressive and sustained advocacy to increase the appreciation and understanding of IPR shall be undertaken in order to leverage intellectual property protection as an essential component of the innovation ecosystem. The government will also conduct information campaigns on the importance of intellectual property rights to strengthen public awareness and create an intellectual property culture among Filipinos.

Subsector Outcome 2: Investments in STI-based start-ups, enterprises and spin-offs increased

Encourage more innovative financing mechanisms and private sector investments. The government will create an investment environment that encourages more private sector participation, including angel investments, venture capital, and crowd fund-sourcing for STI-based startups, enterprises, and spin-offs. The investment provided may be a one-time investment to help the businesses launch or a continuing injection of support fund to help incubate startups during the early stages of their development *(see Chapters 8 and 9 on incentives for prospective investors)*. The government will strengthen programs that provide financing to commercially-viable innovation projects to bridge the gap between R&D and commercialization.

Provide support mechanisms for start-ups and MSMEs in the regions. The government will strengthen the policy and regulatory environment, and introduce new mechanisms to support technopreneurs, start-ups, spin-off companies, and MSMEs. It will provide platforms for technology commercialization such as the establishment of new technology business incubators in the regions in partnership with the private sector and HEIs; promote available technologies; and extend consultancy and other services for productivity improvement. These initiatives are intended to encourage uptake of innovation-based entrepreneurship.

The Small Enterprise Technology Upgrading Program will be expanded to enable more MSMEs to access government assistance for the provision of innovative and cost-effective facilities, provision of technical support for compliance with product and quality standards, packaging and labeling,

as well as training and consultancy services.

Additionally, the Startup Ecosystem Development Program will be pursued to usher in a new breed of businesses that will thrive in an innovation economy. Under the program, support for start-ups will be bolstered through government services, capital, and resources. In addition, a start-up economic zone will be established and assistance in connecting start-ups with industries, including multinational corporations and potential markets, will be provided.

Subsector Outcome 3: Creative capacity for knowledge and technology generation, acquisition and adoption enhanced

Support research and development agenda. The government will invest in building an efficient system of knowledge creation and technology generation. Among others, this will include basic research that needs revitalization, promotion and development through a more rational share in the STI ecosystem budget and infrastructure. As suggested in the Organisation for Economic Cooperation and Development Innovation Strategy 2015, long-term funding for curiosity-driven research must be preserved, as this has been the source of many significant innovations in the past and has high social returns.

Funding support will be provided for the implementation of the Harmonized National R&D Agenda (HNRDA), which defines the country's priorities and guides public investment in R&D. The agenda will consolidate and promote basic and applied research in agriculture, aquatic resources, natural resources, health and nutrition, drug discovery and development, industry, energy, defense and security, and emerging technologies.

STI initiatives for the creative industries, tourism, and other services industries will also be undertaken. Public investments will be channeled to cybersecurity and other technology-related ventures. Furthermore, investments will be made in support of the goal of Self-Reliant Defense Posture, which develops a local defense industry to sustain the material and non-material requirements of the defense forces. Innovation activities on the sectors covered by industry roadmaps will be supported. These roadmaps shall consider the utilization of results of researches and their R&D requirements, which will be made part of the HNRDA.

To keep up with the rapid global technological trends and developments, the Philippines will engage in more collaborative R&D activities and invest in infrastructure buildup to develop its capabilities and maximize the use of the following core and emerging technologies: (a) information and communications technology; (b) biotechnology for industry, agriculture, health, and environment; (c) nanotechnology; (d) genomics; (e) nuclear science for energy, health, agriculture, and industry; (f) artificial intelligence; (g) space technology; and (h) disaster risk reduction and climate change adaptation, and mitigation.

Increase funding for human resource development. Increasing the number and quality of researchers, scientists, and engineers is an essential strategy for the establishment of a vibrant STI ecosystem. The target is to achieve and even surpass the UNESCO norm of 380 researchers, scientists and engineers per million population by 2025 from its current level of 270. This can be achieved by providing continuous support and funding to ongoing S&T scholarships such as the following: (a) Expanded Specialized Science Secondary Education Scholarship; (b) Expanded Undergraduate S&T Scholarships for

Inclusive Development; and (c) Expanded S&T Graduate (Masters/PhD) Scholarships. Strengthening these S&T-based scholarship programs and providing specialized training and incentives will accelerate the development of the S&T human resources that will be tapped to contribute to nation-building. A competitive work environment will be created and research as a career will be promoted to help motivate competent human resources to stay in the country.

Tap the expertise of foreigners and overseas Filipinos (OFs). Mechanisms will be established to encourage overseas-based experts to share their knowledge and specializations with the academe and industry through information and communication technology (ICT), such as videoconferencing. The *Balik* Scientist Program and other related initiatives will be strengthened. The potential role of OFs in developing the country's STI capability will be recognized and pursued by providing opportunities for them. The hiring of foreign scientists and experts will be explored in areas where expertise is not available locally to leapfrog products and process development and build capacity in the field. Institutional linkages through OFs, especially in ASEAN, will also be fostered to encourage more R&D collaboration and capacity building activities.

Strengthen STI infrastructure. STI infrastructure development will be undertaken across the country in order to address region-specific concerns. Niche centers for R&D will be established to equip regional academic institutions and improve industry competitiveness. Moreover, modernization of existing R&D facilities and other STI infrastructures, both in the public and private HEIs, will be pursued to enable them to carry out higher-level R&D activities. The government will also invest in the establishment of product development centers, materials and product testing facilities, and climate and disaster risk reduction facilities.

Improvement of internet connectivity by putting in place a robust ICT infrastructure, particularly the national broadband infrastructure, will be given priority to boost productivity in research and other STI activities. The government is preparing for the rollout of its fiber optic cable network under the "Convergence Program" to link national government agencies in a fiber-optic network and shared resources.

Establish and promote innovation hubs and other similar mechanisms. Innovation hubs will be established in strategic locations in the country to include food innovation centers and shared service facilities. The country will position itself to become the global hub for Disaster Risk Reduction and Climate Change Adaptation and Mitigation. The hub will provide a platform for sharing technologies, lessons and best practices in responding and recovering from natural disasters such as typhoons, floods, and volcanic eruptions.

In addition, an innovation center will be established to promote not only innovation, but also design and creativity, and to provide support for the creation of incubation centers for MSMEs and start-ups. The Department of Trade and Industry will coordinate with the Department of Science and Technology (DOST) and other government agencies, the academe, the private sector, and people's organizations on the necessary investments in scientific and technological research, as well as government support for science and technology parks and local R&D and training.[5]

Moreover, existing services that will be continued and bolstered, such as the following: (a) One Lab (Harmonized Laboratory Testing Services); (b) One Expert; and (c) One Store.

Foster an STI culture. The culture of inventiveness and creativity (*see also Chapter 7 on advancing "pagkamalikhain" or creative excellence*) will be promoted in all

[5] Banatao, D. (2016). Creating an Innovative Mindset and Ecosystem. Manufacturing Summit 2016.

sectors and as early as possible. Programs to boost the interest of young students to pursue STEM courses and the creative arts as viable career options will be pursued. Communicating STI through various media and in partnership with different stakeholders will be carried out to increase public awareness and interest on the importance of STI in daily life.

An STI culture that fosters more effective decision making will be promoted among policy makers and government officials and employees. Being major users and consumers of products and services, government offices will also serve as showcase and promoter of innovative and STI-based solutions. The government will also support LGU-led innovation activities.

Sub-sector Outcome 4: Open collaboration among actors in the STI ecosystem strengthened

Strengthen tri-partite collaboration. Collaboration in R&D based on the triple helix model, which involves the coordination and cooperation of university, industry, and government, will be strengthened. It will be facilitated through the elimination of institutional bottlenecks for joint research activities, such as burdensome processes and administrative procedures, particularly in public higher education and research institutions. The government will also leverage public R&D grants, tax, and other incentives to increase productivity.

Intensify international cooperation in STI. International cooperation will be pursued more aggressively to enhance the flow and benefit of a wide range of existing knowledge and technologies from other countries. Existing fora such as the ASEAN, Asia-Pacific Economic Cooperation and other similar platforms for dialogue and collaboration will be utilized.

Public and private STI institutions will be encouraged to participate and collaborate with international partners in research platforms that seek solutions to common regional concerns such as food security, climate change, disaster risk reduction, resiliency and preparedness, and conservation of resources and biodiversity. These research platforms necessitate specific and strong support for policies that can: (a) facilitate the mobility of S&T experts, researchers, academics and students and other highly skilled human capital; and (b) advance cross-border education and inter-university collaboration in order to foster innovations in solving common regional concerns.

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed on the following:

Table 14.2 Legislative Agenda to Leverage Science, Technology, and Innovation, 2017-2022

LEGISLATIVE AGENDA	KEY REFORMS
Sector Outcome 1: Promoted and accelerated technology adoption	
An Act Establishing the Science for Change Program	Aims to achieve a higher standard of S&T, by prescribing the basic policy requirements for the promotion of S&T and comprehensively and systematically promoting policies for the progress of S&T.
An Act Strengthening the National Measurement Infrastructure System amending RA 9236, also known as the National Metrology Act of 2003 and for Other Purposes	Aims to establish a National Metrology Institute under the DOST; provide capacity building programs through competency training to strengthen the local metrology authorities at the local level; and set up a Metrology Training Program to undertake proficiency testing, advocacy education and training on metrology.
Subsector Outcome 2: Stimulated Innovation	
An Act Adopting Innovation as a Vital Component of the Country's Development Policies to Drive Inclusive Development, Promote the Growth and National Competitiveness of MSMEs, and for other Purposes	Intends to generate and scale up action in all levels and areas of education, training, research and development towards promoting innovation and internationalization activities of MSMEs as a driver of sustainable and inclusive growth.
An Act Strengthening the Balik Scientist Program and Appropriating Funds Thereof	Seeks to strengthen the scientific and technological human resources of the academe, public institutions, and domestic corporations, through the promotion of knowledge sharing and accelerate the flow of new technologies into the country.
An Act Creating the Philippine Space Agency	Seeks to legislate a Philippine Space Development and Utilization Policy and create a Philippine Space Agency that would be tasked with providing the country's space technology-related need from weather imaging to telecommunications.
An Act Providing for a Comprehensive Nuclear Regulation, Creating for the Purpose the Philippine Nuclear Regulatory Commission (PNRC), and Appropriating Funds Therefor	The bill seeks to legislate an independent regulatory framework that will decide on issues affecting public health and safety, protection of the environment and nuclear security and safeguards, beyond the reach of entities with self-motivated interests. The resolution of issues within an autonomous regulatory structure will generate a higher level of trust and confidence in the application of nuclear technologies. The PNRC shall exercise authority over all aspects of safety, security involving nuclear materials and other radioactive materials, facilities and radiation generating equipment.

PART V

ENABLING AND SUPPORTIVE ECONOMIC ENVIRONMENT

15 Ensuring Sound Macroeconomic Policy

Chapter 15

Ensuring Sound Macroeconomic Policy

A sound, stable, and supportive macroeconomic environment is essential for expanding economic opportunities and fostering sustained growth. A fiscal sector that is responsible, strategic, and supportive of inclusive growth can boost the economy and provide a stable environment that is conducive to investments. Monetary policy that ensures price stability with a stable and inclusive financial sector can support growth and improve access to economic opportunities. A strategic external trade policy regime enables Philippine enterprises to successfully compete in global markets and provide employment opportunities for Filipinos.

Assessment and Challenges

A slowdown in international trade will likely persist given the subdued global economic outlook. As discussed in *Chapter 2*, the global economy is seen to remain weak, with average growth rising only slightly from 3.2 percent in 2008-2015 to 3.6 percent in 2017-2021. Consequently, global export volume growth is expected to improve only slightly from 3.0 percent in 2008-2015 to an average of 3.9 percent in 2017-2021.

There is a growing trend toward inward-looking policies and protectionism. Such a trend may make it difficult to engage in preferential or multilateral trade agreements and to expand market access. It also poses a challenge to established international trade rules.

Intensification of competition in the global market heightens the difficulties faced by the sector. Given the above trends, Philippine firms are likely to face stiffer competition both in international and domestic markets. While targets for Philippine exports have been met, the country's competitiveness remains impeded by the high cost of doing business due to various factors including inadequate infrastructure and high electricity costs. Reforms are yet to be fully implemented, including streamlining of export and import procedures and other trade facilitation measures. Opportunities from existing bilateral and regional trade agreements were not fully utilized. The potential of services to drive growth and upgrade the economy remained limited due to various laws, rules, and regulations that govern the sector. Restrictions on foreign equity participation in certain sectors,[1] coupled with burdensome regulatory or licensing requirements and procedures, constrained trade and investments. Keeping up with technological developments and changing demand structures also presents a challenge.

Rising global uncertainties will have an implication on the borrowing costs of the country. The Philippines enjoyed declining borrowing costs over the last six years as its

[1] The banking sector is an exception, with provisions allowing up to 100 percent foreign ownership of domestic banks and locally incorporated subsidiaries following the enactment of Republic Act No. 10641 (An Act Allowing the Full Entry of Foreign Banks in the Philippines) in 2014.

credit rating improved to investment grade for the first time.[2] This was triggered by its improved fiscal position and strong external position. From 2010 to 2015, its revenue effort increased from 13.4 to 15.8 percent, tax effort improved from 12.2 to 13.6 percent, the ratio of debt to gross domestic product (GDP) declined from 52.4 to 44.8 percent, and the share of interest payments in disbursements fell from 19.3 to 13.9 percent. Over the same period, it sustained a current account surplus averaging at 3.3 percent of GDP, while gross international reserves rose from USD62.4 billion to USD80.7 billion, as receipts from trade-in-services increased and remittances from overseas Filipinos (OFs) remained robust.

However, over the medium term, the shift in expectations about the future path of interest rates in the US *(see also Chapter 2)* will likely result in volatility in capital flows and the exchange rate, as well as affect international and domestic borrowing costs.

Higher investments in infrastructure, social services, and innovation will require more fiscal space. Improvements in the fiscal position over the last six years allowed primary expenditures to increase from 13.6 percent of GDP in 2010 to 14.4 percent in 2015, although targets were still not met. Social and economic sector allocations increased annually by an average of 16.3 and 13.2 percent, respectively, for the period 2010-2015. In particular, government infrastructure outlays grew by 28.4 percent on average over the same period. The ratio of government infrastructure outlay to GDP grew from 1.8 percent in 2010 to 4.3 percent in 2015.[3]

Over the next six years, primary spending is seen to rise further to 18.8 percent of GDP by 2022. For instance, spending on infrastructure is expected to increase further to 7.4 percent of GDP by 2022 *(see also Chapter 19)*. Spending on R&D is also planned to increase from 0.14 of GDP in 2013 to 0.50 percent of GDP *(see also Chapter 14)*. Meanwhile, the total social expenditure gap is estimated to be equal to about 3.0 to 4.0 percent of GDP.[4]

The tax system is inequitable, complex, and inefficient. The current tax system has inherent deficiencies that lead to revenue erosion and large scale leakages. These include non-indexation, a large number of special treatment and exemptions, and barriers that hinder tax administration, such as bank secrecy laws.

The absorptive capacities of national government agencies need improvement. While improvements in the fiscal space allowed for significant increases in budgetary resources for priority sectors, government agencies struggled to fully utilize such resources. The ratio of actual disbursements to the programed disbursements fell from an average of 96.4 percent in 2004-2009 to 91.7 percent in 2010-2015. Among the factors that affected budget utilization were weaknesses in project design and preparation, procurement difficulties, and implementation bottlenecks arising from structural weaknesses and capacity constraints of line agencies.

Overall, local government units (LGUs) remain dependent on the internal revenue allotment (IRA). On average, LGUs depend on IRAs for 61.5 percent of their income as many LGUs have not fully maximized their own revenue-raising powers under the Local Government Code. In urban and high income class LGUs, local revenues already provide a sizeable share of the total income, and in metro cities, they account for 70 percent on average. However, in low income class LGUs, dependence on IRA reaches

[2] As of 2016, the country's long-term sovereign credit rating is "BBB Stable" from Standard & Poor's Financial Services, "BBB-Positive" from Fitch Ratings, and "Baa2 Stable" from Moody's Investor Service.
[3] Based on obligation, not actual spending
[4] NEDA estimate based on Philippine expenditures relative to other ASEAN counties

up to 99 percent, given the low economic development and limited local resource mobilization capacity.

Other sources of fiscal risks remain. These include contingent liabilities associated with public-private partnerships and government owned or controlled corporation (GOCC) guaranteed liabilities. They will have a bearing on the fiscal position of the national government once the contingent liabilities materialize.

Despite widening networks, there are persistent geographical, human, institutional, and infrastructure-related barriers on access to financial services. RA 10693 (Microfinance Nongovernment Organizations [NGOs] Act) and the Microfinance NGO Regulatory Council reinforced government support in providing microfinance products and services for the poor. Over the last six years, the number of access points has increased to 9.4 per 10,000 adults in 2015, banks' microfinance portfolio reached ₱11.3 billion, the cooperative sector deposits reached ₱86.2 billion, and insurance penetration[5] reached 1.8 percent of GDP. However, access remains limited, with only 30 percent of Filipinos having access to micro-insurance services for instance and insurance penetration below the average in ASEAN (3.3% in 2014), in emerging markets (2.7%), and in the world (6.2%).[6] An archipelagic landscape leads to spatial obstacles and market segmentation. Human barriers include limited knowledge and capability of households, while institutional constraints come in the form of cost to avail of banking services and distance of the bank, to name a few.[7] Incomplete financial infrastructure also hinders access to available financial products and services.

Growing complexity across financial transactions is a risk to financial stability. Recent global financial market developments showed that financial stability is closely linked to monetary policy. Over the last six years, the banking system remained strong and stable as indicated by the steady growth in assets, loans, deposits, and capital accounts of banks. The banking system also maintained sufficient liquidity and adequate capitalization, and it remained profitable. Parallel to this, the national savings ratio increased. However, Philippine financial markets remain relatively shallow compared with that of its regional peers. Moreover, the growing complexity of financial transactions can lead to instability. Mitigating this risk requires granular data and regular exchange of information among local regulators across jurisdictions.

[5] Ratio of insurance premiums to GDP

[6] EU-ASEAN Business Council. April 2016. *Partnering ASEAN to Close the Insurance Protection Gap*

[7] Results of the National Baseline Survey on Financial Inclusion (NBSFI) conducted by the Bangko Sentral ng Pilipinas (BSP) indicate, among others, that: (a) only 4 out of 10 Filipinos save. Of those who save, roughly 30 percent save in banks while nearly 70 percent keep their money at home; and (b) for those adults who save but are not saving in banks cited limited knowledge and capability to manage an account (16.8%), cost (11.2%), and distance of the bank (7.6%).

Strategic Framework

A strategic trade and fiscal policy along with macroeconomic stability will support the societal goals of reducing inequality and increasing potential growth. Three outcomes are expected: (a) a responsible, strategic and supportive fiscal sector; (b) a resilient and inclusive monetary and financial sector; and (c) a strategic external trade policy regime.

Targets

For 2017-2022, indicators have been identified and targets have been set to monitor the attainment of the sub-sector outcomes of responsible, strategic, and supportive fiscal sector, resilient and inclusive monetary and financial sectors, and strategic external trade policy, as outlined in *Table 15.1.*

Table 15.1 Plan Targets to Sustain a Sound, Stable, and Supportive Macroeconomic Environment, 2017-2022

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Subsector Outcome A: Responsible, strategic and supportive fiscal sector			
Government revenue-to-GDP ratio (in %)[1]/	Jan-Sep 2016	15.9	17.7
Tax revenue to GDP ratio (in %)[1]/	Jan-Sep 2016	14.2	17
Primary expenditure to GDP ratio (in %) [1]/	Jan-Sep 2016	15.5	18.8
Percentage share of interest payments in the total disbursements (in %)[1]/	Jan-Nov 2016	12.6	9.2
Ratio of discretionary spending to total budget (in %)[2]/	2016 GAA	42.7	50.1
NG fiscal deficit to GDP ratio (in %)[1]/	Jan-Sep 2016	2.1	3.0
Outstanding NG debt stock as a share of GDP (in %)[1]/	2016	42.1	35.4
Investment grade credit rating	as of Oct 2016 as of May 2016 as of Sep 2016	Moody's - Baa2/ Stable Fitch - BBB-/ Positive S&P - BBB/A-2/ Stable	sustain or improve IG credit rating
Local source of LGU income share in total current operating income (in %)	2015	33.8	37

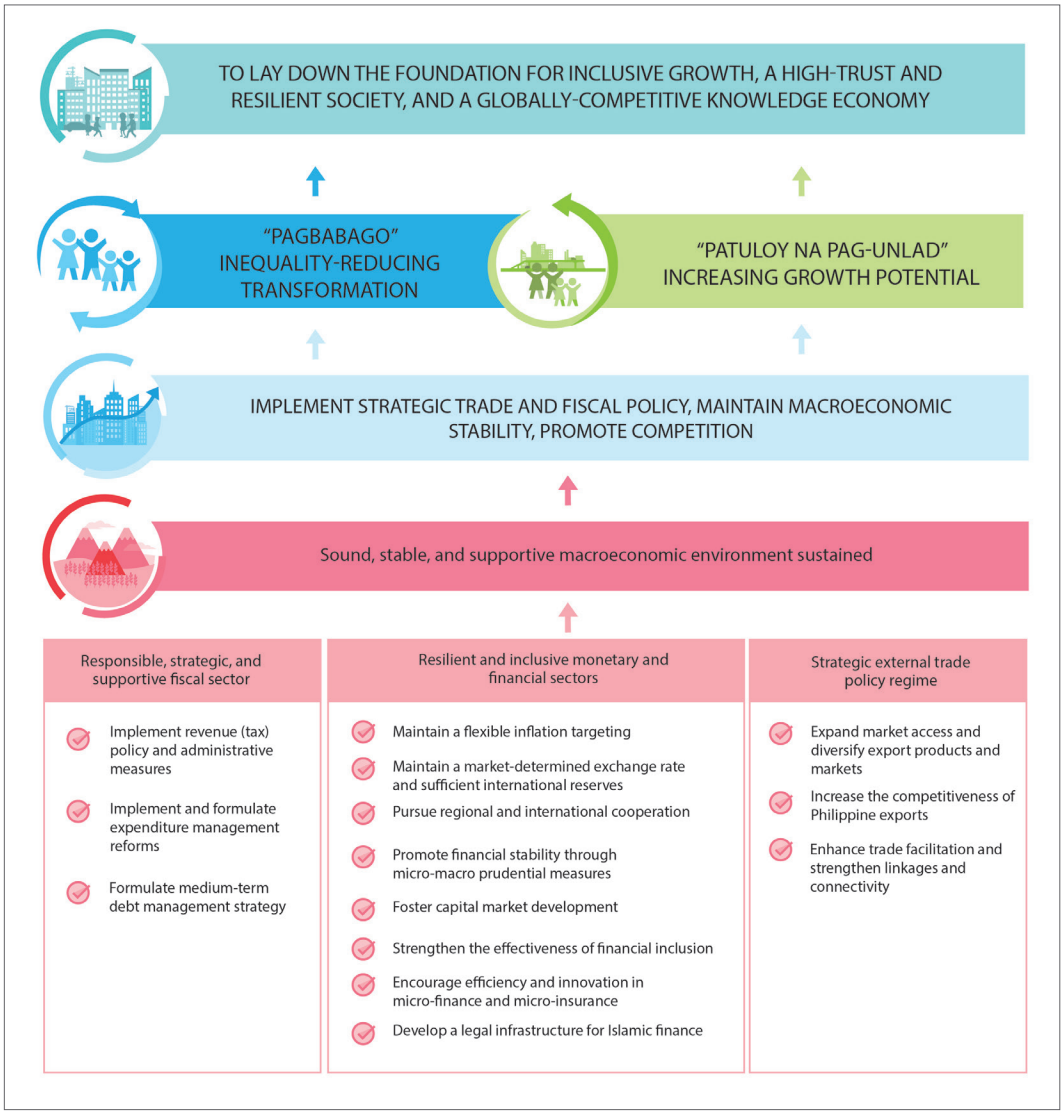
INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Subsector Outcome B: Resilient monetary & financial sector			
Inflation rate (in %)	2016	1.8	2.0-4.0*
Financial system's total assets (growth rate in %)	as of Nov 2016	9.5%	>10%
Gross National Saving to GDP ratio (in %)	as of Q3 2016	29.9%	>30%
Number of deposit accounts	as of Q2 2016	52.4 million	>50 million
Microfinance services delivery [3]/	as of Sept 2016	₱12.1 Bn	>₱10 billion
Number of access points per 10,000 adults [4]/	as of Sept 2016	9.2	>10
Percentage of adults with formal account (as a share to total adult population)	FY 2015	22%	>22%
Remittance costs as a proportion of the amount remitted [5]/	as of Q4 2016	4.7%	<3%
Microinsurance penetration (as % of total population)	2016	30%	35%
Subsector Outcome B: Strategic external trade policy regime			
Merchandise exports (in USD billion)[6]/	Jan-Sep 2016	32.8	61 to 62.2
Services exports (in USD billion)[6]/	Jan-Sep 2016	24.0	61 to 68.6
Current account balance to GDP ratio[7]/	Jan-Sep 2016	0.7	0.001

** Headline inflation targets are only until 2020. Figures for 2021 and 2022 are inflation assumptions.*
1/ 2017 Targets are based on the 2017 Budget of Expenditures and Sources of Financing while 2018-2022 are based on the 169th DBCC approved levels on December 20, 2016.
2/ Obligation basis
3/ This data refers to microfinance services delivery by the banking sector. Data from the cooperative and microfinance NGO sectors are not yet included. No numerical target but value should be increasing over time.
4/ This includes deposit accounts and e-money accounts. There is no numerical target but the percentage should be increasing over time. The BSP will monitor improvements based on results of a biennial demand-side survey.
5/ Proxy indicator: cost (in %) of sending USD200 from the United States to the Philippines.
6/ Baseline figures for goods and services exports are based on BOP (BPM6) data. Figures for 2017 – 2022 were estimated based on annualized 2016 BPM6 levels and latest DBCC assumptions on growth rates for exports of goods and services approved on 20 December 2016
7/ Medium term projections as approved by the Monetary Board on 23 December 2016

Strategies

To attain a responsible, strategic, and supportive fiscal sector; a resilient and inclusive monetary and financial sector; and a strategic external trade policy regime, the strategies as outlined in *Figure 15.1* will be implemented.

Figure 15.1 Strategic Framework to Sustain a Sound, Stable and Supportive Macroeconomic Environment, 2017-2022



Sector Outcome 1: Responsible, strategic, and supportive fiscal sector

Improve revenues through reforms in tax policy and administration. The proposed **tax policy reform** shifts to a simpler, fairer, and more efficient tax system characterized by lower rates and a broader base. This is expected to correct both horizontal and vertical inequities in the system. Based on international experience, tax policy reform will be successful only if it is accompanied by **tax administration reforms**. Beyond revenue generation, tax reform should also help promote investments, create jobs, and lift people out of poverty.

Key reforms in the BIR include process and forms simplification for small taxpayers, electronic data sharing to improve compliance, taxpayer bill of rights, and relaxation of bank secrecy for fraud cases. These reforms are expected to improve taxpayer satisfaction, reduce cost of compliance in paying taxes, and result in public trust.

Meanwhile, the BOC will implement an aggressive anti-smuggling campaign in order to expand revenues. The campaign will be supported by tighter enforcement in free trade zones, fuel marking, and reconciliation of trade data with partner countries.

To increase local sources of LGU revenue, institute legislated and non-legislated measures. LGUs need to maximize the revenue-raising powers granted to them by the Local Government Code. Among the potential measures are: (a) professionalization of local treasurers through the Standardized Examination and Assessment for Local Treasury Service Program; (b) updating key local finance manuals to take into account developments in local finance; (c) intensifying LGU fiscal monitoring and performance evaluation through standardized reporting tools and metrics; (d) establishing the idle land inventory and imposing the idle land tax in all LGUs; and (e) enjoining LGUs to comply with LGC requirements concerning local revenue base.

Encourage the private sector to engage in public-private partnership schemes. This will free up the fiscal space so that government resources can be used for other public goods and services.

Increase budget share of social and infrastructure sectors. From an average share of 33 percent in the national budget in the past six-years from 2010 to 2015, developmental expenditures are targeted to reach 50.1 percent by 2022 to fund programs and projects crucial to sustaining inclusive growth. This will be made possible through (a) more prudent expenditure; (b) sustainable debt liability management strategies; and (c) government bureaucracy rightsizing to ensure more efficient and effective operations.

Formulate and implement expenditure management reforms. Several measures will be put in place to improve agency budget utilization and address underspending. These include: (a) strengthening the linkage between planning and budgeting[8]; (b) capacity building for line agencies and other stakeholders; (c) streamlining the release of funds and development of integrated and user-friendly financial management system; (d) strengthening project monitoring through modern technology such as integrated systems, geotagging and mapping; and (e) developing a codex for the consistent and efficient application of the Commission on Audit Rules.

[8] To be achieved by: (a) translating the PDP into medium-term plans of agencies; (b) developing and rolling out Medium-Term Expenditure Program among line agencies; (c) improving coordination and feedback mechanisms among NGAs, regional development councils, LGUs and other stakeholders; (d) improving the evaluation process to ensure alignment with the PDP; and (e) regular updating of agency plans and multi-year infrastructure plans based on the latest Socioeconomic Report

Enhance debt management through the Medium-Term Debt Strategy. This entails a proactive stance in the management of the debt portfolio and adoption of a borrowing mix program. It likewise requires reforms that: (a) boost liquidity and trading activity through debt consolidation, reissuance and reduction of outstanding securities; (b) reduce friction cost of investing in domestic government securities; (c) formulate an annual issuance program to maintain benchmark securities that will represent the domestic yield curve; (d) establish a Repo (Repurchase Agreement) Program for domestic securities to support the secondary market; and (e) establish a Primary Dealer Program that will set the rights, privileges and role of government securities dealers in market making.

Furthermore, government will push for amendments to the BOT Law, with the objective of improving the process of project appraisal, contract management, and management of contingent liabilities. Policies concerning re-financing, public consultation and trust liability accounts will be studied. The government will also streamline the data reporting process and provide comprehensive data through the Government Debt Recording and Monitoring System, which will help in the analysis of GOCC debt, better manage government financial exposure, and inform strategy formulation.

Sector Outcome 2: Resilient and inclusive monetary and financial sectors

Monetary Policy

Maintain a flexible inflation targeting framework through the interest rate corridor (IRC) system. As part of the initiatives to strengthen the framework for monetary policy implementation, the IRC system was launched in June 2016.[9] To sustain the reform momentum, current policies and programs will be continued. The government will be vigilant to ensure that the inflation environment remains suitable and consistent with the evolving domestic price dynamics and sustained economic growth objectives.

Maintain a market-determined exchange rate and sufficient international reserves to better insulate the economy from external shocks that could disrupt the pace of economic growth. Measures to reduce the volatility of capital flows will be studied.

Pursue regional and international cooperation to prevent and manage future financial crisis. This will also boost the capability of the BSP to undertake quality economic surveillance that will contribute to informed formulation of monetary policies.

Financial Policy

Promote financial stability through micro-macro prudential measures. Pre-emptive prudential measures seek to moderate credit and asset price booms. Such measures complement traditional monetary and financial policies. Since financial stability is a mutual concern among regulators, the creation of the Financial Stability Coordination Council allows different agencies to take a more comprehensive view of the financial system. Simultaneously, the government will continue to establish an enabling policy and regulatory environment that supports financial stability objectives.

Foster capital market development through the promotion of efficiency in trading, settlement and delivery of securities. The domestic capital market will be broadened and deepened to serve as an alternative stable funding source for financing infrastructure

[9] Prior to implementing the IRC reforms, the BSP held consultations with market players and counterparties to ensure the smooth implementation of the IRC and allow the market sufficient time to prepare for the transition.

and other long-term needs. Securing the reliability, quality, and integrity of pricing and valuation of financial instruments will be pursued in collaboration with the private sector. Complementing these initiatives is the establishment of an integrated financial market infrastructure, which is considered as a key component of the financial system.

Strengthen the effectiveness of financial inclusion initiatives by focusing on the efficient delivery of microfinance and micro-insurance products and services for Filipinos including those who live abroad. These initiatives will include various economic and financial literacy activities that will encourage Filipinos to participate in economic governance and harness the investment potential of OF remittances toward innovative financial instruments such as personal equity and retirement funds or insurance products. These will be complemented by the creation of mechanisms that will cater to the Filipinos' financial needs.

Encourage efficiency and innovation in microfinance and micro-insurance for the domestic market.[10] Microfinance services such as credit access of micro, small, and medium enterprises (MSMEs) will be broadened. For microcredit to reach its full potential, credit bureaus and movable collateral registries will be developed and strengthened. On micro-insurance, innovative products will likewise be explored outside the existing micro-health and pre-need services. Private insurance providers will be encouraged to engage in the delivery of micro-insurance for agriculture.

Develop the legal infrastructure for Islamic finance. The legal infrastructure will provide an enabling environment that accommodates and facilitates the development of Islamic finance products such as '*sukuk*' or Islamic bonds; a clear and efficient system that preserves the enforceability of Islamic financial contracts; and a credible and reliable forum for the settlement of legal disputes arising from Islamic finance transactions.[11]

Sector Outcome 3: Strategic external trade policy regime

The government will focus on providing support and promoting products where the country has comparative advantage and has the potential for competitive advantage. External trade policy will support backward and forward linkages to both the domestic and international markets, spur the production of higher value-added goods and services, diversify products and markets, as well as provide opportunities for the growth of enterprises.

Expand market access and diversify export products and markets

Pursue strategic trade partnerships and maximize opportunities in bilateral, regional and global integration. These will also be used as platforms to expand market access and diversify products and markets. Advocacy and capacity-building programs to encourage businesses, especially MSMEs, to maximize export opportunities and increase the utilization of preferential trading agreements will be continued. Support programs to enable MSME exporters to graduate to higher levels will also be put in place. Comprehensive support packages will also be provided to priority sectors with comparative advantage.

Intensify marketing and promotion of Philippine goods and services and increase market intelligence. The

[10] Focus on the 14 basic sectors identified in RA 8425 (Social Reform and Poverty Alleviation Act). These sectors are more vulnerable relative to other groups as they grapple with poverty.
[11] Islamic Financial Services Board. *Islamic Finance Global Legal Issues and Challenges*, p. 18

Philippines will be promoted as a producer of high-quality goods and services to increase its presence in the international market. Promotion and marketing activities will include sustained brand awareness campaign programs, partnerships to promote Philippine-made products, and social media campaigns,among others.

Intensify market intelligence. This will entail strengthening the coordination among government and other relevant entities to help identify the opportunities, threats, and changes in demand structure that that may affect export performance. In addition, an integrated database between the Philippine Statistics Authority and the Bureau of Customs (BOC) will be established for real-time assessment of trade flows. Exporters will be allowed to access information so that they can readily respond to market changes. Linkage between other government and private agencies with access to trade transactions as recognized by the BOC and investment promotion agencies will also be strengthened.

Explore new markets for Philippine exports. Maximize opportunities in Asia and link with emerging markets, which are expected to grow over the long-term.

Increase the competitiveness of Philippine exports

Minimize the cost of production and delivery of goods and services through reforms. Continue efforts to ease the cost of doing business in the local and national government. Likewise, implement programs and projects designed to cushion the impact of sharp foreign exchange adjustments on exporters. These may include the BSP's Rediscounting Facility, hedging products, and market-based foreign exchange regulations, among others.

Improve the quality of goods and services by adopting best practices and successful business models in production processes. These will improve efficiency and raise the value of products and services. Enforcement activities should be strengthened to prevent the proliferation of substandard products. Laws, rules, and regulations will be reviewed with a view to adopting international standards.

Encourage and support innovation in the country's export-oriented industries through investments. Innovation enhances the capacity of exporters to catch up with higher levels of technology, meet international quality standards and product specifications, boost productivity, and facilitate the production of higher-value added products. Focus areas include: (a) research and development for agricultural products and services with high demand in the world market; (b) miniaturization, robotics, and digitalization of new products and services; (c) state-of-the-art disaster and climate-resilient technologies; and (d) quality packaging that uses locally-sourced materials.

Develop human resources and improve institutional structures. Prioritize continued training for the skills needed for higher value services to be able to diversify exports. Build the capacity of Philippine negotiators to assess and formulate Philippine positions and explore the possibility of establishing a body similar to trade representative offices in other countries. This body will coordinate Philippine positions and negotiate bilateral, regional and multilateral arrangements.

Enhance resiliency to disaster and climate change impact. This will be done by developing policies that ensure business continuity and mitigate risks to businesses or enterprises during disasters.

Enhance trade facilitation and strengthen linkages and connectivity

Review and implement laws, rules and regulations to reduce the cost to exporters and importers as well as facilitate and streamline procedures for engaging in trade. The full and effective implementation of RA 10668 (Foreign Ships Co-Loading Act) and RA 10863 (Customs Modernization and Tariff Act) will be pursued. Programs and initiatives under the WTO, Asia-Pacific Economic Cooperation, and the Association of Southeast Asian Nations (ASEAN), including its growth areas such as BIMP-EAGA, that aim to improve customs procedures and facilitate trade will be supported. Initiatives to reduce the time to undertake trade transactions, such as the Business Process Inter-operability, will be implemented to provide full exchange of information. The government will continue moving toward a trade facilitative Rules of Origin regime, such as the use of self-certification in ASEAN.

Foster forward and backward linkages across sectors through the value chain approach. Exporters will be connected with multinational corporations and suppliers through business matching, trade fairs, and networking initiatives, among others. MSMEs will be promoted either as a supplier or service provider to foreign investors during investment and trade promotion events and as possible technology partners through technology license agreements.

Provide adequate infrastructure and logistical support to achieve connectivity, ensure efficient flow of goods and services domestically and internationally, and lower the cost of production and delivery. Formulate both the transport and logistics network plan and information and communication technology plan. These will complement the efforts to link the sectors with more markets and improve their competitiveness.[12]

[12] Refer to the Infrastructure chapter

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed in the following.

Table 15.2 Legislative Agenda to Sustain a Sound, Stable and Supportive Macroeconomic Environment, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Fiscal Sector	
Tax Reform Program	Amend certain sections of the National Internal Revenue Code of 1997 to achieve a simpler, fairer, and efficient tax system.
Institutionalize the Extractive Industry Transparency Initiative	Improve the transparency in revenue payments and sharing in the mining, oil and gas industries.
Unified Pension Reform Bill	Arrest the large and unsustainable fiscal impact of the ballooning pension requirements of the military and uniformed personnel.
Government Rightsizing Bill	Promote effectiveness and efficiency in government operations to ensure the quality of public service that is responsive to the changing needs of the population.
Budget Reform Bill	Institutionalize good PFM practices which include: a) shift to cash-based budgeting from the current obligation basis; b) reducing the validity of appropriations to one year from the current two years, etc.
Real Property Valuation and Assessment Reform Act	Institute reforms in real property valuation and assessment in the Philippines.
LGU Income Classification Bill	Institutes the income classification of provinces, cities and municipalities, and for other Purposes.
LGU Property Insurance Bill	Amends RA 656 (Property Insurance Law) to make it mandatory for all LGUs to insure its properties (e.g., buildings, roads, bridges, plants, machineries and equipment)
Amendments of the Local Government Code of 1991	Amend (a) expenditure assignment, (b) revenue assignment and LGU taxing powers, (c) inter-governmental fiscal transfer, (d) credit financing for LGUs, (e) inter-LGU cooperation through alliances, (f) creation of new LGUs, and (g) local fiscal administration
Financial and Monetary Sector	
Proposed amendments to the BSP Charter[13]	Expand and improve the operations of Bangko Sentral ng Pilipinas.
Enactment of the Payment Systems Act	Promote the digitization and interoperability among payment systems Including the supervisory oversight of the BSP
Amendments to the Anti-Money Laundering Act	Expand its organizations and transactions coverage, including granting additional powers.
Enactment of Islamic Banking	Strengthen the Al-Amanah Bank, while promoting both the establishment of other Islamic banks and engagement in Islamic banking arrangements under the supervision and regulation of the BSP.
Amendment to the provisions of RA 1405 (Law on Secrecy of Bank Deposits) and RA 6426 (Foreign Currency Deposit Act)	Exempt government officials and employees, whether elected or appointed, from the coverage of the Bank Secrecy Law.
Filipino Identification System Act	Pursue a national identification system for effective delivery of government services.
Secured Transactions Bill	Establish a comprehensive legal framework on lending transactions involving personal property as collateral.
Enactment of the Collective Investment Schemes Law	Anticipate participation of middle- to low-income individuals in CIS opportunities.
External Trade Sector	
Key legislative measures that will promote and support the sector will be supported including those proposing the streamlining of export and import procedures and reduction of import and licensing fees, as well as related legislation listed in Chapter 9.	

16 Leveling the Playing Field through a National Competition Policy

Chapter 16

Leveling the Playing Field through a National Competition Policy

Competition makes markets perform better and promotes inclusive economic growth. It induces producers to reduce costs, innovate, and widen the range of goods and services available to consumers. It allows a level playing field where small entrepreneurs and firms, besides larger players, may operate and grow. In the process, competition raises productivity, expands economic opportunities, increases people's real incomes, and improves overall welfare. Competition especially benefits the poor through job creation made possible by the entry, growth, and expansion of efficient firms; and through lower prices that result from greater variety and higher quality of goods and services.

Market competition does not operate in a vacuum. Its beneficial results depend on the prevailing environment. Experience has shown that competition may also lead to sub-optimal results, especially in cases where private and social interests diverge.[1] When competition intensifies, in the short term, less efficient firms are forced out of the industry, or firms may resort to anti-competitive or deceitful conduct.[2] Socially beneficial competition is also hindered when sellers can exploit consumers' imperfect information and human frailties.[3]

On the other hand, socially beneficial competition ensues when the right incentives are generated "for firms to improve their economic performance vis-à-vis their actual and potential rivals and in so doing deliver the best outcomes for their consumers and society as a whole."[4] Such is the basic rationale for a competition policy.

The Philippine Development Plan (PDP) 2017-2022 seeks to enhance market competition by fostering an environment that penalizes anti-competitive practices, facilitates entry of players, and supports regulatory reforms to stimulate investments and innovation.

The enactment of Republic Act (RA) No. 10667 or the Philippine Competition Act (PCA) on July 21, 2015 reinforces the efforts of the government to sustain inclusive economic growth. The PCA provides for the formulation of a National Competition

[1] Stucke, Maurice E. 2013. Is Competition Always Good? *Journal of Antitrust Enforcement*, 1(1): 162-197. doi: 10.1093/jaenfo/jns 008

[2] In competing for market share, ratings agencies in the US intentionally inflated their ratings of mortgage-related securities. Another study found that the pass rates for cars undergoing emission testing increased as the number of competitors in the emissions testing market increased (Stucke, 2013).

[3] Consumers have behavioral biases and limited cognitive skills. For example, firms may offer sets of more expensive bundled products that are difficult to assess, or credit card companies could exploit consumers' overestimation of their financial discipline (Stucke, 2013).

[4] World Bank Group and OECD. 2016. *A Step Ahead: Competition Policy for Shared Prosperity and Inclusive Growth.* (Conference Edition). Washington, D.C.: World Bank Group

Policy (NCP) that aims to steer regulations and administrative procedures of government agencies toward promoting competition, as well as to strengthen the enforcement of anti-trust laws and effectively ensure competitive neutrality. The PCA specifically provides for the creation of the Philippine Competition Commission (PCC) which will conduct inquiries, investigate, hear, and decide on cases involving anti-competitive agreements, abuse of dominant position, and anti-competitive mergers and acquisitions (M&As).

Competition law and the corresponding mechanism to enforce it is an essential component of a national competition policy. In formulating the NCP, the other equally essential components, such as policies relating to competitive neutrality, consumer protection, government regulations that do not impede competition, and removal of structural barriers are established, and that an effective institutional mechanism to coordinate and oversee the implementation these inter-related components is put in place.

Assessment and Challenges

This section provides a general assessment of the Philippines' standing relative to other countries and identifies the challenges that need to be addressed.

Despite the passage of the PCA, there are other laws and issuances that hinder competition. There are a number of government agencies with legislative charters that have dual regulatory and proprietary functions. An example is the Philippine Ports Authority. The lack of separation between the dual functions of these agencies may result in conflicts of interest and may have unintended negative impact on market outcomes.

Fragmented government regulatory functions also pose threats to competition. Often, regulatory agencies with related or similar functions over certain commodities operate in silos. This situation is aggravated by the decentralization of many regulatory functions to local government units by virtue of RA 7160, also known as the Local Government Code of 1991.

The country's competition environment remains weak. The country has started laying the groundwork for promoting competition and achieved the following accomplishments under the Philippine Development Plan 2011-2016: (a) creation of the Office for Competition (OFC) in 2011 under the Department of Justice (DOJ); (b) enactment of the PCA in 2015; (c) modernization of the Tariff and Customs Administration in 2016; (d) allowing the full entry of foreign banks in the Philippines in 2014; (e) amendment of the Cabotage Law in 2015;, and (f) ongoing conduct of Project Repeal.

As these are relatively recent reforms, findings from the Global Competitiveness Index (GCI) for 2016 to 2017 show the need to further improve business dynamism, product market efficiency, and market size.

Product Market Regulation (PMR) by the

Table 16.1 GCI Rankings of Nine ASEAN Member States

BUSINESS DYNAMISM		PRODUCT MARKET EFFICIENCY		MARKET SIZE	
Singapore	12	Singapore	1	Indonesia	10
Malaysia	21	Malaysia	12	Thailand	18
Brunei Darussalam	56	Thailand	37	Malaysia	24
Viet Nam	76	Indonesia	58	Philippines	31
Philippines	86	Brunei Darussalam	68	Viet Nam	32
Thailand	93	Lao PDR	72	Singapore	37
Indonesia	98	Cambodia	76	Cambodia	86
Lao PDR	129	Viet Nam	81	Lao PDR	108
Cambodia	131	Philippines	99	Brunei Darussalam	116

World Bank Group and the Organisation for Economic Co-operation and Development (OECD) puts the country at the bottom 40 percent.[5] The country's PMR score indicates a restrictive regulatory environment for competition largely due to high barriers to trade and investment, barriers to entrepreneurship, and state control. The Philippines appears to be worse than income comparators such as Colombia and South Africa.

The full enforcement of the PCA helps ensure a level playing field among firms, but there are challenges. Among these are: (a) achieving the right balance between efficiency of firms and market competition; and (b) ensuring government-owned and controlled corporations (GOCCs) and private firms compete on equal terms in the provision of goods and services.

For instance, in the banking sector, merger or consolidation of banks improves the stability of the financial system. It results in fewer but larger players. The case of a firm that buys out its only rival allows it to achieve a greater scale in production at a lower per unit cost. However, this situation benefits consumers only if the cost-savings lead to lower prices, better quality of products, or increased innovation. The merged or consolidated firm may not have ample incentives to do these unless properly regulated.

Preferential treatment by the government of GOCCs likewise poses risks because the practice is not compatible with the promotion of market competition. There is a need to ensure that GOCCs and private firms compete on equal terms. Currently, GOCCs enjoy tax exemptions and other incentives. As such, measures must be made to ensure that they are not given undue advantage when they directly or indirectly compete with firms in the provision of goods and services.

Government actions, while addressing important social objectives, potentially create market distortions by limiting the entry and expansion of current players and by protecting vested interests. These actions include: (a) government-owned monopolies; (b) government-authorized private monopolies; (c) government control of entry and expansion of market players;

[5] The Philippines PMR indicators is an output of a partnership between the WBG and the OECD to extend the initial OECD PMR data set to a number of developing economies and emerging markets, including the Philippines. PMR indicators are based on a qualitative analysis of the regulatory framework collected through a questionnaire that assesses regulations both economy-wide and in key sectors of the economy. Separate sectoral indicators are built for network industries. This statement is based on preliminary data only. Final PMR values for the Philippines will be available in 2017.

and (d) government provision of goods and services similar to those provided by private entities.

The existence of government-owned monopolies may be justified by the absence of private firms that could provide the necessary goods and services. However, if potential private providers are willing to enter the market, government action that precludes entry may be difficult to justify.

As for government-authorized private monopolies, the government could either create a GOCC to supply the good (a government-owned monopoly) or offer tax and market incentives to a private player (a government-authorized monopoly) to enter the undeveloped market and propel the capacity building stage. In the latter case, government grants a firm the legal authority to operate as a monopoly through either a legislative franchise, or an administrative franchise. These are common in electricity transmission, water distribution systems, and build-and-operate arrangements for transport facilities, including road services, railway, air and sea transport.

In some cases, government also controls the entry and expansion of market players, hence causing prospective players to face non-economic and regulatory barriers to entry. There are constitutional and statutory provisions that limit foreign equity (e.g., mass media) and the practice of professions by foreigners. While other societal goals underpin these restrictions, they preclude the Philippines from fully taking advantage of global and regional capital and labor mobility such as those promoted under the ASEAN Economic Community Blueprint.

Other government regulatory barriers that either distort incentives or limit the full participation of local players in the market include regulation of retail rates charged by distribution utilities for the supply of electricity. This affects the incentives faced by generators, electricity distributors, and retailers. The Philippines still has one of the highest electricity rates in Asia *(see Chapter 19)*.[6]

The importation of rice and sugar is also controlled through licensing powers held by the National Food Authority (NFA) and the Sugar Regulatory Administration (SRA).

The participation of government in providing goods and services similar to private entities also limits competition. Normally, government participation can be justified only if the private sector cannot provide the goods and services. For example, the government renders health services also supplied by private hospitals, and government educational institutions offer services similar to those provided by private schools. Likewise, government-owned banks, such as the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP) provide financial services similar to commercial banks.

There are laws and regulations that potentially render undue disadvantage to some firms within the same sector. These undue disadvantages include incentives to enterprises located in special zones in order to attract foreign investment, differential tax treatments between renewable and non-renewable sources of energy, and a wedge in taxation between domestic and foreign shipping vessels. Also, a few government regulations could inadvertently facilitate collusion among competing firms.

Geographic fragmentation can create natural barriers to competition, limiting the entry of players or allowing the creation of artificial markets. In the

[6] Energy Policy and Development Program. August 2016. (EPDP) Working Paper 2016-01R. Retrieved from http://www.upecon.org.ph/epdp/wp-content/uploads/2016/03/DP2016-01-Filipino-2040-Energy_Power-Security-and-Competitiveness.pdf

cement industry, for instance, transport cost represents a significant share of delivered cost from producer to market. Likewise, the absence of interconnection in the power grids of Luzon, Visayas, and Mindanao precludes the shifting of supply to high demand areas and potentially lowering the cost of power.

Strategic Framework

The NCP needs to be formulated and implemented in order to improve consumer welfare and market efficiency. This addresses two societal goals: reducing inequality and increasing potential growth. Competition will create a level playing field for MSMEs by removing barriers to entry and reducing costs so that they can actively participate in the market. It will likewise facilitate innovation and promote efficiency, thereby expanding economic opportunities and promoting economic growth. This will be done through: (a) diminishing anti-competitive practices; (b) reducing barriers to entry; and (c) reducing limits to entrepreneurship to allow micro, small and medium enterprises to thrive.

Targets

In leveling the playing field, the NCP aims to improve market efficiency and consumer welfare. The target will rely on the GCI ranking of the Philippines. From the country's ranking in 2016 at the top 40 among the 138 economies assessed, the midterm (2019) target is to be in the top-third (33%), and an end of plan target to be within the top 25 percent of all economies. Table 16.2 presents the targets, including those relating to intermediate outcomes.

Table 16.2 Plan Targets to Level the Playing Field through a National Competition Policy, 2017-2022

OBJECTIVES/ RESULTS	INDICATOR	BASELINE		END OF PLAN TARGET
		YEAR	VALUE	
Outcome 1: Consumer welfare improved **Outcome 2:** Market efficiency improved	Global Competitiveness Index (GCI)[7] ranking improved	2016	Top 40%	Top 25%
Intermediate Outcome 1: Anti-competitive practices diminished	Business dynamism improved [8]	2016	Top 60%	Top 40%
	Product market efficiency improved [9]	2016	Top 70%	Top 50%
Intermediate Outcome 2: Barriers to entry reduced	Market size expanded [10]	2016	Top 22%	Top 20%
	Product Market Regulation (PMR) improved [11]	2016	To be determined	To be determined
Intermediate Outcome 3: Limits to entrepreneurship reduced	Regulatory compliance costs incurred by firms reduced	2017 [12]	To be determined	To be determined

Strategies

The following are the strategies to achieve the outcomes and the corresponding targets. Given limited resources, a system of prioritizing strategies will be laid out based on spillover effects to other markets, contribution to a regulatory environment that is conducive to competition, and the feasibility of reform.

[7] The GCI assesses the competitiveness of 138 economies based on: (a) enabling environment; (b) human capital; (c) markets; and (d) innovation ecosystem.

[8] GCI business dynamism captures the entrepreneurial spirit and the ways businesses respond to opportunities. It measures the following: (a) cost required to start a business; (b) time required to start a business; (c) cost of bankruptcy proceedings; (d) strength of insolvency framework; (e) attitudes toward entrepreneurial risk; (f) growth of innovative companies; and (g) willingness to delegate authority.

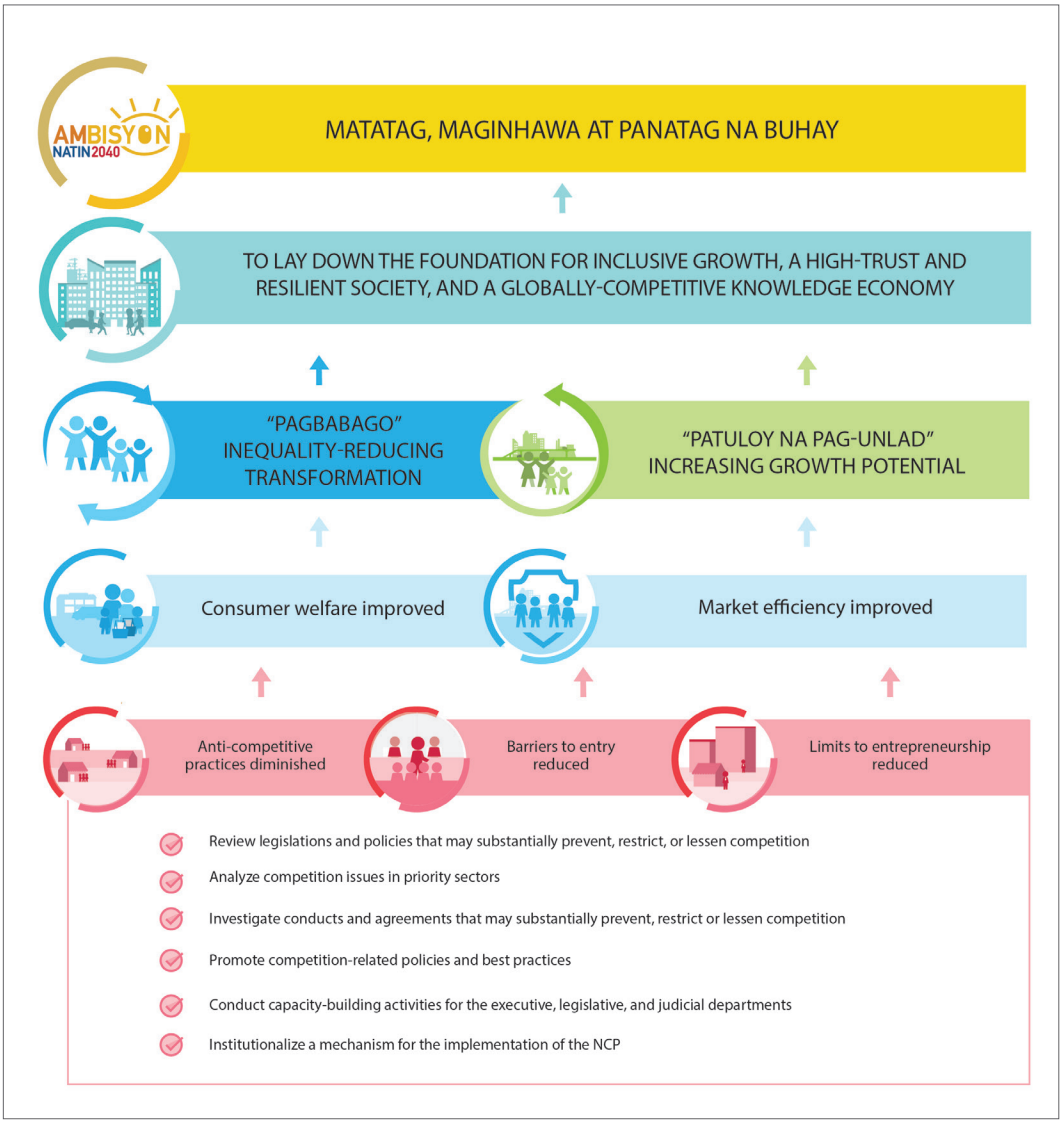
[9] GCI product market efficiency measures the following: (a) extent of market dominance; (b) effectiveness of antitrust policy; (c) competition in professional services; (d) competition in retail services; (e) competition in network services; (f) prevalence of non-tariff barriers; (g) trade tariffs; (e) complexity of tariffs; (f) burden of customs procedures; (g) service trade restrictiveness; (h) total non-labor tax rate; and (i) distortive effect on competition of taxes and subsidies.

[10] In the GCI, market size captures the following: (a) real market potential; (b) cost required to start a business; (c) time required to start a business; (d) cost of bankruptcy proceedings; (e) strength of insolvency framework; (f) attitudes toward entrepreneurial risk; (g) growth of innovative companies; and (h) willingness to delegate authority.

[11] The Philippines' PMR indicators is an output of a partnership between the World Bank Group and the OECD to extend the initial OECD PMR data set to a number of developing economies and emerging markets. PMR indicators are based on a qualitative analysis of the regulatory framework collected through a questionnaire that assesses regulations both economy-wide and in key sectors of the economy. Final PMR values for the Philippines will be available in 2017.

[12] The DTI-NCC is developing a model for computing the regulatory compliance cost incurred by firms.

Figure 16.1 Strategic Framework to Level the Playing Field through a National Competition Policy, 2017-2022



Review potentially anti-competitive legislations and policies that may substantially prevent, restrict, or lessen competition. It is important to examine government policy actions and determine whether they fulfill their intended objectives. Policy options available are to *retain* the existing government market intervention if there is sufficient public benefit that outweighs its negative effects, notwithstanding its impact on market competition; *recalibrate* the intensity or form of the government market intervention, if such form has limited effectiveness or public benefit; *replace* or modify the intervention if there are better, more effective alternatives available that address the same social ends without the uncompetitive by-product; *remove* the government intervention if the market structure is sufficient to ensure market competition; or conduct further *review* when additional data needs to be obtained, additional research needs to be undertaken, or additional discussions need to be made among stakeholders in order to reach a consensus.

The OFC will be reorganized and restructured in view of the enactment of the PCA and the establishment of the PCC.

The scope of Project Repeal will also be expanded. Repealing unnecessary regulations will reduce barriers to entry and stimulate more competition. Restrictions on competition will be kept only if they are consistent with public interest.

A review of the mandate, quality of services, and specific markets of GOCCs will also be continued to ensure that their proprietary activities do not conflict with their regulatory functions, and that procedures are streamlined.

Analyze competition issues in priority sectors. In addressing market competition issues, government will prioritize sectors where the largest impact on consumer welfare and market efficiency is expected. Specific sectors will be identified after a comprehensive market scoping is completed. In selecting priority sectors, the government will consider improvement in the variety and quality of goods and services that are essential to poverty reduction, generation of new livelihood and employment opportunities, spillover effects on other sectors in the economy, and indications of lack of competition.

In agriculture, market competition in key inputs to production (e.g., fertilizer, seeds) will be reviewed. If enhanced, market competition effectively widens the range of options available to producers and lowers the cost of inputs, and even small farmers have much to gain.

There is also a need to review government programs that distort market competition for land and that potentially affect small farmers' access to credit and preclude their ability to benefit from economies of scale.

In the industry sector, lack of competition may be due to limited market, limited access to raw materials, high cost of research and development, monopolies created by patent protection, and the tendency to perceive price as a sign of quality. The market studies to be conducted will identify important competition issues in different industry subsectors and recommend measures to encourage market competition. *See also Chapter 9.*

Since the Philippine economy is to a great extent open, the industry sector, particularly manufacturing, is already subject to global market discipline through imports of goods. This means that abuse of market power through high prices is curbed directly by the importation of raw materials, and intermediate or final goods. However, this may not happen if importation is heavily controlled through quantitative restrictions or import permits.

In the services sector, the tradable goods sector's performance (including manufacturing and agriculture) relies heavily on the competition environment in services that feed into it. These ancillary services include power generation, electricity distribution, transportation (air, land, and water), telecommunications, and human capital. If the services sector is inefficient, the tradable goods sector (especially manufacturing) will suffer. Hence, enhancing competition in services, especially telecommunications and power, will be prioritized. *See also Chapter 9.*

Research outputs will inform legislation and policymaking, and support advocacy initiatives to make consumers, firms, and government agencies better understand the importance of market competition.

Investigate conduct and agreements that may substantially prevent, restrict, or lessen competition. The enforcement of the PCA requires the investigation of potentially anti-competitive behavior while maintaining an

environment where businesses can compete on a level playing field.

The impact of the actions of firms on market efficiency, competition, and consumer welfare will be quantified. This information will be useful to the public as well as policymakers in understanding the seriousness of the competition problems in certain sectors and of the benefits that could be derived from inhibiting anti-competitive practices.

Promote competition-related policies and best practices. The promotion of market competition is a cross-cutting concern that affects all consumers and producers regardless of size. Fostering a culture of strong competition in the country requires concerted efforts among relevant government agencies and other sector regulators, with support from the executive, legislative and judiciary branches. Government will also collaborate with development partners and competition authorities from other jurisdictions. Activities will be conducted to help consumers better comprehend the terms of services offered by firms.

Conduct capacity-building activities for government agencies and other institutions. The government recognizes the importance of strengthening both institutional as well as individual capacities and creating a knowledge base for the effective implementation of the PCA. Considering that competition policy is a relatively new concept in the Philippines, the government will ensure that capacity-building efforts within its ranks are enhanced and that any gaps and needs are addressed immediately. There will be sustained support to improve the institutional and technical capacity of PCC as well as the other government units under the executive, legislative, and judicial departments that are mandated to promote market competition. Government will collaborate with academic and research institutions in strengthening programs on competition law and economics.

Institutionalize a mechanism for implementing the NCP. The government will uphold the principle of *competitive neutrality* and adopt policies that establish a level playing field where GOCCs and firms compete. The NCP will also provide guidelines for government agencies that issue rules and regulations that hamper competition.

A subsidiarity analysis on GOCCs, spearheaded by the Governance Commission for Government Owned and Controlled Corporations (GCG), will be done to determine actions that must be undertaken. The GCG is set to continue reviewing the mandate and performance of the other entities it oversees.

Meanwhile, a responsive regulatory management system will be institutionalized to monitor impact, ensure cohesiveness, and improve the quality and flexibility of government regulatory frameworks. A whole-of-government approach to regulatory reform will be implemented in reducing the burdens imposed by regulations, ensuring that no new anti-competitive laws and regulations are passed, and institutionalizing transparency in the regulatory management processes.

As the NCP will be comprehensive and will require a whole-of-government approach, an inter-agency mechanism to formulate and coordinate the implementation of the national policy will be instituted. Among others, the NEDA, DTI, PCC, DOJ, and GCG will be part of this oversight and coordinative mechanism.

Legislative Agenda

Regulatory reforms will be pursued to complement the national competition policy. The government will work toward the enactment of the following legislation within the PDP 2017-2022 period.

Additional items in the legislative agenda will be drawn following the review of potentially anti-competitive laws and policies that substantially prevent, restrict, or lessen competition.

Table 16.3 Legislative Agenda to Level the Playing Field through a National Competition Policy, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Amended Public Service Act	Ease or lift restrictions on foreign investments in certain industries by amending or repealing provisions that limit foreign participation in certain economic activities. Subsequently, this will amend the FINL to encourage foreign direct investments (FDI). Higher FDI boosts economic growth, fosters more competition, facilitates technology transfer, generates more jobs, and provides wider choices for consumers. See also Chapter 9.
Regulatory Management System Act	The government will push for the passage of a law on regulatory management system to establish a more competitive and coherent regulatory environment. A central body will be created to ensure that there is an evidence-based approach to formulating laws, rules, and regulations.

PART VI

FOUNDATIONS FOR SUSTAINABLE DEVELOPMENT

17 Attaining Just and Lasting Peace

Chapter 17

Attaining Just and Lasting Peace

Economic growth cannot be sufficiently buoyant, sustained, nor inclusive without durable and enduring peace. Communities that experience armed conflict are frequently among the poorest in the country. Families that belong to these communities always need to be prepared for evacuation at a moment's notice whenever fighting erupts. As a result, families are unable to build up assets, particularly immovable ones. Moreover, very few put up businesses not only because they fear for their safety but also because they cannot secure property rights. At the same time, schoolchildren in these areas are either forced to suspend or quit schooling, which leaves their learning stunted and options for the future limited.

In response, the government has been relentless in its pursuit of peace, through intensified development and other peace-building initiatives in conflict-affected[1] and -vulnerable[2] communities. While much has been achieved, so much more remains to be done.

Assessment and Challenges

There was a breakthrough in the peace talks with the Moro Islamic Liberation Front (MILF) but there was no enabling law to implement the peace agreement. In 2012, a year after the exploratory talks resumed, a breakthrough in the peace process was achieved with the signing of the Framework Agreement on the Bangsamoro (FAB) between the government of the Philippines (GPH) and MILF. This was subsequently followed by the signing of the Comprehensive Agreement on the Bangsamoro (CAB) in 2014, which proposed a comprehensive political settlement with two main thrusts: the passage of the Bangsamoro Basic Law (BBL) that will create the new Bangsamoro entity and replace the current Autonomous Region in Muslim Mindanao (ARMM), and the normalization[3] process in the Bangsamoro.

The proposed BBL went through deliberations in Congress and several public hearings. Unfortunately, the 16th Congress adjourned without enacting the bill. The setbacks encountered in the legislation of

[1] Conflict-affected areas (CAA) are communities where (a) there are actual armed encounters between the government forces and political armed groups; (b) where political armed groups dominate the state of affairs of the community; or, (c) where other forms of violent conflicts exist.

[2] Conflict-vulnerable areas are communities that are proximate to CAAs, where possible "side-stepping" of armed group(s) are imminent. It can also include GIDAs (geographically isolated and disadvantaged areas) whose resources (actual or symbolic) are deemed valuable by the political armed group.

[3] Normalization is defined in the agreements as a process whereby conflict-affected communities can "return to conditions where they can achieve their desired quality of life, which includes the pursuit of sustainable livelihoods and political participation within a peaceful deliberative society. It aims to ensure human security in the Bangsamoro and build a society that is committed to basic human rights, where individuals are free from fear of violence or crime, and where long-held traditions and values continue to be honored.

the proposed BBL remains a stumbling block in the implementation of the signed peace agreement with the MILF and in the achievement of lasting peace in Mindanao.

Nevertheless, as part of confidence-building measures, the government launched the Sajahatra Bangsamoro Program in 2013 to uplift the health, education, and livelihood of priority Bangsamoro communities and targeted individual beneficiaries through quick-gestation, high-impact, and social protection-type programs. Other commitments under the normalization process that were fulfilled include the submission and public release of the Transitional Justice and Reconciliation Commission's comprehensive report to both negotiating panels. The report provided situationers and recommendations on correcting historical injustices, and addressing legitimate grievances, human rights violations and marginalization resulting from land dispossession in the Bangsamoro. In addition, the ceremonial turnover of 75 high-powered and crew-served weapons and decommissioning of 145 combatants, as part of the phase I of the decommissioning in the normalization process, and the provision of reintegration interventions were implemented.

Several issues on the implementation of the peace agreement with the Moro National Liberation Front (MNLF) remain pending. A fast-tracked review of the phase II of the 1996 Final Peace Agreement (FPA) was undertaken, which produced 42 consensus points that were translated into a draft amendatory bill. However, the draft bill was not submitted to Congress due to two outstanding issues on the establishment of the provisional government and the conduct of a plebiscite for the expansion of territory. The 42 consensus points and two remaining issues were then incorporated in the drafting of the BBL, which Congress was unable to enact. Nevertheless, both parties finally agreed to complete the Tripartite Review Process (TRP). The government will then focus on the implementation of its remaining commitments under the 1996 FPA.

A Bangsamoro convergence framework is needed. Intra-Bangsamoro convergence is a crucial pre-requisite to the passage of the new enabling law that will be brought before Congress. There must be a neutral, inclusive and independent space where an all-Bangsamoro conversation can take place, as well as a credible and impartial facilitator for the process. This will require the meaningful convergence of key non-state actors in the peace process, some of which were challenged by divisions and intra-group conflicts. If effectively managed, the Bangsamoro conversations may also address concerns on the participation of communities and their traditional leaders in the peace process.

Other threat groups pose security risks. The socio-political environment on the ground is marred by security threats posed by private armed groups, including those who have aligned with terrorist cells. Controlling radicalism and violent extremism fueled by a growing discontentment among disgruntled elements or former allies and members of the MILF and the MNLF is another security preoccupation. These further complicate the peace process in Mindanao.

Peace negotiations with the Communist Party of the Philippines-New People's Army-National Democratic Front (CPP-NPA-NDF) collapsed. The resumption of formal talks between the GPH and the CPP-NPA-NDF in 2011, after seven years of impasse, was hampered by the unilateral postponement of peace talks by the NDF when the government refused to release the alleged NDF consultants who are high-ranking CPP/NPA officers. However, several efforts to facilitate the revival of peace talks failed due to the demands of NDF, which were unacceptable to the government.

A Closure Agreement with the *Rebolusyonaryong Partidong Manggagawang Pilipinas* - Revolutionary Proletarian Army-Alex Boncayao Brigade (RPMP-RPA-ABB) is pending. Pending the signing of the draft Closure Agreement, the inter-agency preparatory work at the national and regional levels has proceeded to ensure that the implementing agencies, local government units (LGUs), the Tabara-Paduano Group (TPG) of the RPMP-RPA-ABB, and the various stakeholders on the ground will be ready to operate once the agreement is signed. Various programs for socioeconomic integration, social protection, and institutional transformation were implemented. In particular, the TPG transformed itself from an armed group to a lawful and legitimate legal personality registered with the Securities and Exchange Commission (SEC) that recently won a seat in the House of Representatives through the *Abang Lingkod* party-list.

Signed Closure Agreement with the Cordillera Bodong Administration-Cordillera People's Liberation Army (CBA-CPLA) needs to be completed. In 2011, the GPH and the CBA-CPLA signed a Memorandum of Agreement (MOA) "Towards the CPLA's Final Disposition of Arms and Forces and its Transformation into a Potent Socio-economic Unarmed Force." This resulted in the turnover of about 76 percent of the total inventoried firearms and detonation of all inventoried explosives. Registered under the SEC, the CPLA transformed into the Cordillera Forum for Peace and Development, Inc. and became a member of the Cordillera Regional Peace and Order Council. However, remaining activities particularly in the implementation of livelihood projects and the sustainability of interventions leading to socioeconomic transformation still need to be completed.

Implementation of the *Payapa at Masaganang Pamayanan* (PAMANA) Program[4] needs to be enhanced and strengthened. The government's peace and development convergence program extended development interventions to communities in isolated and hard-to-reach conflict-affected and conflict-vulnerable areas. PAMANA has improved socioeconomic conditions by providing PhilHealth insurance, scholarship grants and livelihood opportunities. Road infrastructure enhanced the access of communities to facilities and improved security conditions.

As of 2016, PAMANA has covered 16 regions, 50 provinces, 6 highly-urbanized cities, and 523 municipalities--all with communities affected by conflict due to the CPP-NPA-NDF and MNLF. Total funding for the program from 2011-2016 amounted to ₱36 billion. The program enabled community members to access basic social services, such as health and education. Improved accessibility and socioeconomic and security conditions resulted in lower transaction costs, which have significantly brought down prices, made profit margins bigger and spurred economic activities in the communities. Responding to emergencies and other security incidents also became easier for security forces.

PAMANA enhanced the capacity of national government agencies, communities and local government units on good governance to adopt and implement the peace-building agenda. There is now an increasing number of communities and LGUs that demonstrate

[4] PAMANA partner implementing agencies include: Department of Agriculture (DA), DA-Bureau of Fisheries and Aquatic Resources (BFAR), Department of Agrarian Reform (DAR), Department of the Interior and Local Government, Department of Energy (DOE), Department of Environment and Natural Resources (DENR), Department of Public Works and Highways (DPWH), Department of Social Welfare and Development, National Electrification Administration (NEA), National Irrigation Administration (NIA), and the Autonomous Region in Muslim Mindanao (ARMM).

higher levels of social cohesion[5] manifested in a heightened sense of belonging and respect for diversity among otherwise polarized individuals, groups, and sectors within and among communities; cooperation and volunteerism; and, increased participation of marginalized and vulnerable groups in peace-building and development activities.

However, the challenge is to further enhance and strengthen PAMANA because improving human security conditions through the delivery of basic socioeconomic services in a timely, conflict-sensitive and peace-promoting manner is the only way for peace dividends to be felt early by the long-time conflict-affected communities.

Implementation of the United Nations Security Council Resolution (UNSCR) 1325 and National Action Plan on Women, Peace, and Security (NAP-WPS) needs to be continued to ensure that women are further enabled and empowered to expand their role in conflict situations. The NAP-WPS was mainstreamed at the national level through its inclusion into Gender and Development (GAD) annual plans and budgets[6] and inclusion of women, peace, and security in the programs, projects, and activities of NGAs and local government units (LGUs)[7]. Women Peace Centers were also established in the ARMM. Integration and mainstreaming of gender and development perspective in all peace efforts was done through the active roles women played in key positions in the Office of the Presidential Adviser on the Peace Process (OPAPP) and in other bodies and mechanisms related to peace process under the previous administration.[8] Particularly for the Bangsamoro peace process, the significant participation of women in peace negotiations paved the way for expressed provisions on the promotion of women's rights and their meaningful participation in governance in the texts of the various negotiated agreements.

[5] 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.

[6] Joint Memorandum Circular (JMC) 2014-01 directed NGAs to integrate the NAP-WPS in their Annual GAD Plans and Budgets and in their Annual GAD Accomplishment Reports (AR).

[7] PCW-NEDA-DBM JMC 2012-01-Guidelines on the Preparation of the Annual GAD Plan and Budget and Accomplishment Reports and PCW-DILG-DBM-NEDA JMC 2013-01- Guidelines on the Localization of Magna Carta of Women

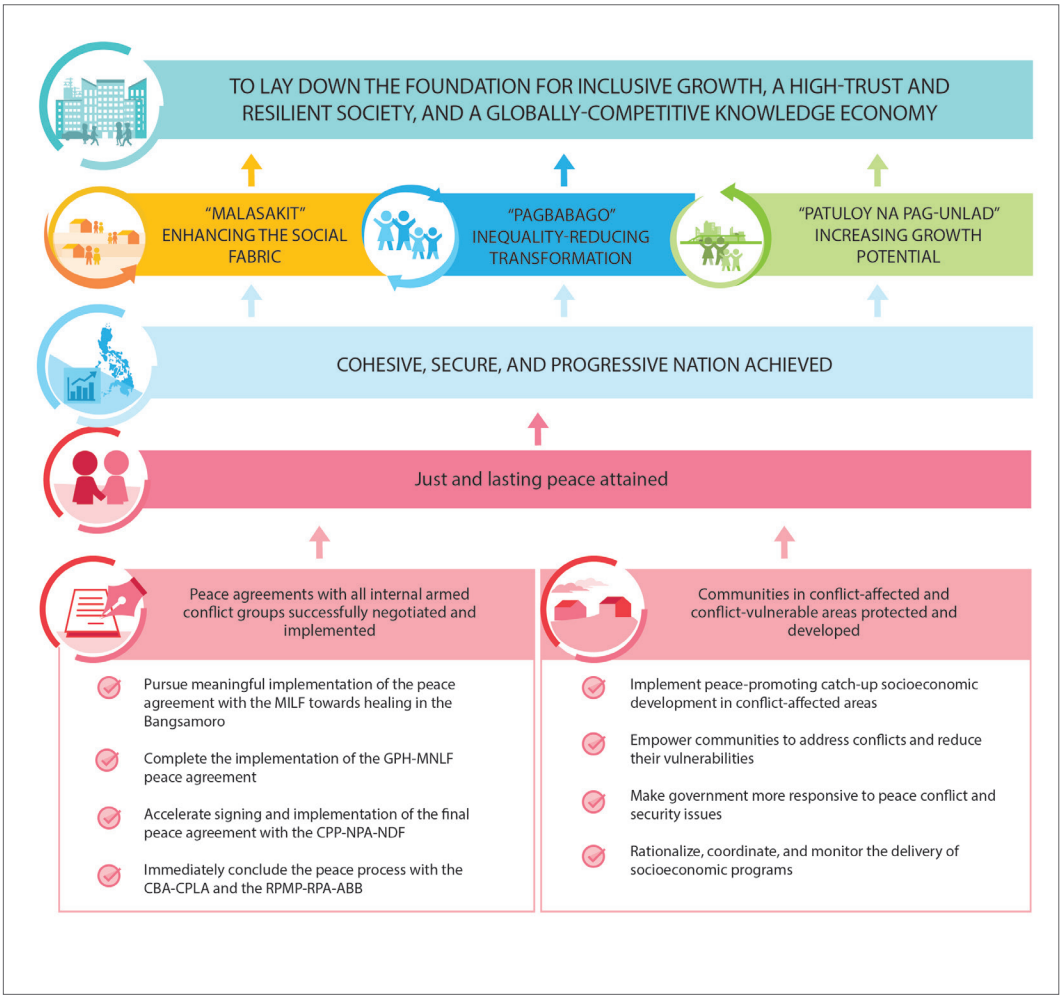
[8] A woman served as the Secretary of OPAPP; 2 women with one acting as chair are members of the GPH peace panel; 3 Moro women head the GPH Panel Legal Team for the GPH-MILF peace process ; 1 woman heads the GPH Panel Secretariat of the GPH-MILF negotiating table; 4 women are members of the 15-member Bangsamoro Transition Commission; 3 women head the various Technical Working Groups (TWG) of the GPH for the FAB; 1 woman co-chairs the Joint Normalization Committee (JNC)– GPH; JNC-GPH Secretariat Head; 1 woman is a member of the Transitional Justice and Reconciliation Commission (TJRC); 1 woman heads the GPH Secretariat for talks with CPP-NPA-NDF; 2 women supervise the implementation of Closure Agreements with the CPA-CPLA and the RPMP-RPA-ABB; and 48 of the 107 secretariat and technical staff supporting the work of the government panels are women

Strategic Framework

Ensuring peace and security is one of the crucial foundations that support the three pillars: *Malasakit, Pagbabago,* and *Patuloy na Pag-unlad*. The government aims to achieve a cohesive, secure, and progressive nation by attaining just and lasting peace, and by ensuring durable security, public order, and safety.

To attain this, the government aims to negotiate and implement peace agreements with all internal armed conflict groups. While engaging in peace talks, it will also ensure that communities in conflict-affected and vulnerable areas are protected and developed.

Figure 17.1 Strategic Framework to Attain Just and Lasting Peace



To support these outcomes, the following strategies, as guided by the Six-Point Peace and Development Agenda of the administration, will be implemented:

- Meaningful implementation of the peace agreement with the MILF toward healing in the Bangsamoro
- Completion of the implementation of remaining commitments under the GPH-MNLF peace agreement
- Accelerated signing and implementation of the final peace agreement with the CPP-NPA-NDF
- Immediate conclusion of the peace process with the CBA-CPLA and the RPMP-RPA-ABB
- Implementation of peace-promoting and catch-up socioeconomic development in conflict-affected areas
- Empowering communities by increasing their capacity to address conflict and reduce their vulnerabilities
- Strengthening government peace and development institutions and mechanisms to increase their responsiveness to peace, conflict, and security issues
- Ensuring government rationalization, coordination, and monitoring of the delivery of socioeconomic programs, and other interventions by donor institutions and government agencies in conflict-affected areas, especially in Mindanao.

Subsector Outcome 1: Peace agreements with all internal armed conflict groups successfully negotiated and implemented

Pursue the meaningful implementation of the agreement with MILF toward healing in the Bangsamoro. An enhanced approach and roadmap for the implementation of the CAB and its annexes in close partnership with the MILF will be pursued. This will include the passage and ratification of an enabling law that is owned and advocated by various stakeholders and a national constituency. Inclusivity will be ensured by providing platforms for participation of different sectors and groups.

Parallel to the passage of the enabling law will be the implementation of the four components of the annex on normalization: security, socioeconomic development, confidence-building measures, and transitional justice and reconciliation. Along with these efforts, the GPH and MILF will commit to the maintenance of the ceasefire agreement in conflict-affected areas in Mindanao.

Complete the implementation of the remaining commitments under the GPH-MNLF Peace Agreements. The GPH will pursue the completion of its remaining commitments under the GPH-MNLF 1996 FPA based on the result of the TRP within an agreed timeframe. These deliverables include: (a) establishment and operationalization of the Bangsamoro Development Assistance Fund; (b) creation and operationalization of the Tripartite Implementation Monitoring Committee; and (c) resolution of issues on co-management of strategic mineral resources.

Moreover, convergence between the 1996 FPA and the CAB will be ensured in the Bangsamoro enabling law, which will incorporate the consensus points agreed upon by the GPH and the MNLF legal panels during the TRP. The participation of the MNLF in mechanisms created under the CAB, including the Bangsamoro Transition Commission, will also be ensured.

Accelerate the signing and implementation of the final peace agreement with the CPP-NPA-NDF. The GPH and CPP-NPA-NDF have agreed to resume the formal talks and accelerate the negotiations for a final peace agreement. It is imperative that the high-level of confidence between the two parties

as well as public interest and support are maintained.

The strategy will entail engaging the CPP-NPA-NDF in accelerated negotiations and related support processes to complete the three remaining substantive agenda of the talks: socioeconomic reforms, political and constitutional reforms (PCR); and end of hostilities and disposition of forces (EHDF). The final peace agreement with the CPP-NPA-NDF will be composed of the comprehensive agreements on these three reform areas and the Comprehensive Agreement on Respect for Human Rights and International Humanitarian Law.

As agreed by the parties, the negotiations will be done through accelerated and simultaneous discussions of the substantive agenda so that the agreement can be implemented within the term of the current President. Towards this end, Working Groups on PCR, ceasefire and EHDF will be created by the negotiating panels to begin discussions and immediately complete the draft comprehensive agreements, which will be approved by the two negotiating panels. The government will also sustain its engagement with the Royal Norwegian Government as third-party facilitator for the talks.

In addition, related support processes will be initiated in creating a favorable environment to keep the negotiations on track toward achieving the FPA. Parallel processes, such as internal advocacy on critical reform issues, strategic communication, and peace constituency building, will be intensified to ensure inclusivity and transparency in the peace process.

Immediately conclude the peace process with the CBA-CPLA and the RPMP-RPA-ABB. The government hopes to complete the peace process with the CBA-CPLA and the RPMP-RPA-ABB. By the end of 2022, the peace process should facilitate the return of former CBA-CPLA and RPMP-RPA-ABB members, their families and communities to productive and normal lives.

The strategy for the conclusion of the peace process with the CBA-CPLA will be three-pronged: (a) completion of implementation of the 2011 Closure Agreement; (b) continuing peace and development interventions; and (c) provision of support to regional development advocacies.

On the other hand, the closure of the RPMP-RPA-ABB track will employ the following strategies: (a) signing an agreement toward the group's disposition of arms and forces; (b) multi-stakeholder convergence and support toward the full implementation of socioeconomic interventions; (c) release of alleged political offenders for humanitarian reasons; and (d) sustained local development support.

Subsector Outcome 2: Communities in conflict-affected and conflict-vulnerable areas protected and developed

Implement peace-promoting and catch-up socioeconomic development in conflict areas. The PAMANA Program will be strengthened based on an enhanced peace and development framework to support the Six-Point Peace and Development Agenda. This will focus on the implementation of peace-promoting and catch-up socioeconomic development in conflict-affected and conflict-vulnerable areas, as well as on building a culture of peace and conflict-sensitivity. Likewise, it will address the issues of injustice and improve community access to socioeconomic interventions; improve governance by building the capacity of NGAs and LGUs to undertake a development approach that promotes peace and is sensitive to conflict, culture, and gender; and empower communities and strengthen their capacity to address issues of conflict and peace.

Empower communities by increasing their capacity to address conflicts and reduce their vulnerabilities. The negative impact of violent conflicts to communities will be mitigated, if not prevented, by supporting structures and mechanisms that will help them avert the emergence of conflict and prevent the escalation of existing ones. These will strengthen local or traditional conflict resolution and management mechanisms, as well as establish formal and informal avenues for continuing dialogue and broad-based participation of peace stakeholders in the peace and order councils, local development councils, and *Katarungang Pambarangay*. Appropriate systems and tools for conflict monitoring will also be established.

Mainstreaming of peace education programs and the promotion of a culture of peace and non-violence will also be pursued in formal and non-formal settings. In formal education institutions, the Total-School Approach to peace education will be mainstreamed to promote peace and conflict sensitivity, introduce its principles in the school curriculum, and apply the principles within the various aspects of academic community life.

Moreover, the integration of former combatants will be addressed by focusing not only on their reconnection to mainstream society, but also their total healing and reconciliation with their communities.

Make government more responsive to peace, conflict, and security issues. Conflict sensitivity and peace promotion in the work of NGAs, LGUs, and other government mechanisms such as the peace and order councils, local development councils and disaster risk reduction and management (DRRM) councils will be mainstreamed.

Likewise, the continued implementation of the UNSCR 1325 and NAP-WPS will ensure the protection of women's rights in conflict situations and expand their role in the peace process.

Programs and initiatives of government on various peace concerns resulting from internal armed conflict will be harmonized. These include protection of rights and promotion of interests of vulnerable groups (i.e., women, indigenous peoples (IPs), children, elderly, internally displaced persons (IDPs), persons with disabilities (PWDs), former combatants) in situations of armed conflict, observance of human rights and international humanitarian law, and conduct of interfaith and intercultural dialogue. Efforts will also be undertaken in addressing humanitarian concerns resulting from internal armed conflict, through the integration of DRRM into the peace process in line with RA 10121 or the National Disaster Risk Reduction and Management Act.

Rationalize, coordinate and monitor the delivery of socioeconomic programs and other interventions by donor institutions and government agencies in conflict affected areas, especially in Mindanao. A government-led coordination, collaboration and complementation mechanism among stakeholders in the implementation of all peace agreements, peacebuilding, and development initiatives will be established. The Mindanao Comprehensive Peacebuilding Program will be established, while the Mindanao Working Group will be reactivated to guide and harmonize the work of government and international partners. This will be anchored on the Mindanao Peace and Development Framework that will be formulated.

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed on the following:

Table 17.1 Legislative Agenda to Attain Just and Lasting Peace, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Subsector Outcome A: Peace agreements with all internal armed conflict groups successfully negotiated and implemented	
Enabling law that will pave the way for the establishment of the Bangsamoro political entity	The enabling law for the Bangsamoro political entity will have two main thrusts: (a) political-legislative track, which includes the passage of the enabling law; and (b) normalization track, which runs alongside and complementarily to the political-legislative work on the enabling law. This enabling law will replace the draft BBL, which was not passed during the 16th Congress due to perceived unconstitutional provisions.
Amnesty proclamation for the release of alleged political offenders	Amnesty and pardon are part of the confidence-building measures that will be undertaken in the peace tables with the armed rebel groups.

18

Ensuring Security, Public Order, and Safety

Chapter 18

Ensuring Security, Public Order, and Safety

National security and public order are essential elements in building the foundation for inclusive growth, a high trust and resilient society, and a globally competitive knowledge economy. People feel safe wherever they are in the country and are able to go about their business, economic or social pursuits as long as they do not violate other people's economic, social, and cultural rights. Such a condition enables the free flow of goods and services. Therefore, along with peace, security, public order, and safety constitute the bedrock of the 0+10 point Socioeconomic Agenda of the administration.

Assessment and Challenges

The previous Philippine Development Plan emphasized the need to safeguard the country's territorial integrity, sovereignty, and sovereign right. While targets have been met, efforts now need to be intensified to eradicate crime, illegal drugs, and corruption. Further, the government must upgrade the capability of law enforcers to drastically reduce criminality and terrorism, and to ensure the safety and security of all people in the country.

The country needs to enhance its diplomatic and defense capability to protect its sovereignty and territorial integrity. The passage of the Revised Armed Forces of the Philippines (AFP) Modernization Act or Republic Act 10349 ensured the allocation of funds for the build-up of aircraft, vessels, and materiel to enable the country to attain a more credible defense posture.

In terms of external security and sovereignty, the country asserted its claims and sovereignty with the favorable ruling of the Permanent Court of Arbitration (PCA) on the South China Sea Arbitration Case. The case involved disputes on maritime jurisdictions and entitlements in the West Philippine Sea, and arbitration proceeded despite China's refusal to participate.

In addition, the Philippines achieved a landmark agreement in 2014 to delimit the exclusive economic zone boundary with Indonesia. Bills on maritime zones and archipelagic sea lanes were introduced in Congress in 2015 to strengthen adherence to the provisions of the United Nations Convention on the Law of the Sea (UNCLOS).

Despite the decision of the PCA on the case filed by the Philippines pertaining to conflicting claims of maritime jurisdiction and entitlements under UNCLOS, the dispute in the West Philippine Sea will continue to be the main challenge to external security during this Plan period, and even in the longer term given the magnitude and complexity of the problem. Other territorial or jurisdictional problems such as maritime boundary delimitations with other neighboring countries will also need to be addressed.

The country forged strategic partnerships and bilateral agreements with other countries, which focused on political, security, and defense cooperation and other matters related to sovereignty and territorial integrity. Along with these agreements, defense and security assets and assistance were provided and committed by partner countries through diplomatic channels. These include humanitarian and disaster response, infrastructure and materiel upgrade, communication systems, capacity building for maritime security, search and rescue, and counter-terrorism.

Targets in crime volume and solution efficiency were met, but efforts need to be strengthened given the magnitude of the problem. The government exerted efforts to prevent and suppress security risks to citizens, guests, tourists, and vital infrastructure (e.g., power facilities, telecommunication towers, mining areas, etc.).

Crime volume was reduced by almost 20 percent from 2013 to 2015 due to intensified police interventions such as the creation of Patrol Operations Sections, conduct of Operation Lambat-Sibat and various anti-criminality and law enforcement campaigns. Operation Lambat-Sibat is a deliberate, programmatic, and sustained police operation supported by scientific crime reporting with a wide dragnet[1] and intel-targeted operations to catch small-time criminals and repeat offenders. These initiatives were complemented by the establishment of intelligence networks down to the barangay level that contributed to the success of police operations.

Although its volume has been reduced, crime remains a significant concern especially in urban areas. In 2015, the highest crime incidence was posted in the National Capital Region followed by the Central Luzon and Central Visayas regions. According to the Philippine National Police (PNP), the most common crimes reported in 2015 were theft, physical injury, and robbery. There were less incidents of pickpocketing, carjacking, and kidnapping reported.

Solving crimes is a challenge in law enforcement as it is affected by several factors beyond the control of the law enforcement agencies. These include people's willingness to testify as witness and the efficiency of the pillars of the criminal justice system. Nevertheless, crime solution efficiency (CSE) has improved from 38.49 percent in 2013 to 51.36 percent in 2015. Although it surpassed the end of plan target of 38.26 percent, the number remains relatively low compared to CSE a decade ago, which averaged to around 90 percent in 2004 and 89 percent in 2005 (PSA, 2015).

The problem on illegal drugs needs a holistic approach. The use of illegal drugs is prevalent in the country with around four million drug users and 47 percent of barangays throughout the country being drug-affected (PDEA, 2016). Three illegal transnational drug groups of African, Chinese, and Mexican Sinaloa origin operating in the country have greatly aggravated the drug problem.

The government has therefore adopted a holistic approach in addressing criminality and illegal drugs. Nonetheless, the capability of military and law enforcement agencies must be intensified to address new threats to national security such as cybercrime and violent extremism. As these initiatives are expected to result in high incidence of apprehensions, the government must also upgrade its jail facilities and substantially increase the drug rehabilitation centers.

In all activities to address criminality, respect for human rights should be upheld

[1] A police operation purposely to seal off the probable exit points of fleeing suspects from the crime scene to prevent their escape *(Source: PNP Revised Criminal Investigation Manual, 2011)*

and observed at all times. Mechanisms for reporting and addressing human rights violations should also be strengthened to ensure that violators are prosecuted.

Victims of human trafficking were effectively assisted, but preventive measures need to be strengthened. According to the Department of Justice, the government's commitment to protect its people against trafficking led to the conviction of 248 traffickers and secured justice for 645 survivors from 2011 to 2016. There are already 24 task forces operating in different parts of the country, with a total of 7,185 trafficking victims rescued or repatriated and evacuated by foreign service posts abroad. Most victims were provided protection and assistance to enable them to recover from trauma and gain employment or start a business. The government continues to train and increase the capacities of law enforcers, service providers and front liners.

Government needs to give greater attention to public safety. Fire incidence increased from 12,301 in 2013 to 17,138 in 2015. NCR, Western Visayas, and CALABARZON recorded the most incidents in this period. A big factor is the lack of firemen, with the current ratio below the standard of one fireman for every 2,000 population.

Beyond fire safety measures, there are public safety issues that need to be addressed. These include emergency response, road safety, humanitarian assistance, and disaster response.

Safeguard migrants. Ensuring the safety and welfare of overseas Filipinos (OFs) is of paramount concern of the government given different sociocultural practices in host countries, geopolitical tensions, and natural and economic shocks. For surveillance and detection, the Bureau of Immigration has commenced the Alien Registration Program that mandates all foreign nationals to obtain a Special Security Registration Number. The government has also extended legal, financial and counselling assistance to many OFs through its embassies and consulates. Rapid Response Teams are also in place to respond to the needs and facilitate the immediate repatriation of OFs in countries in crisis.-

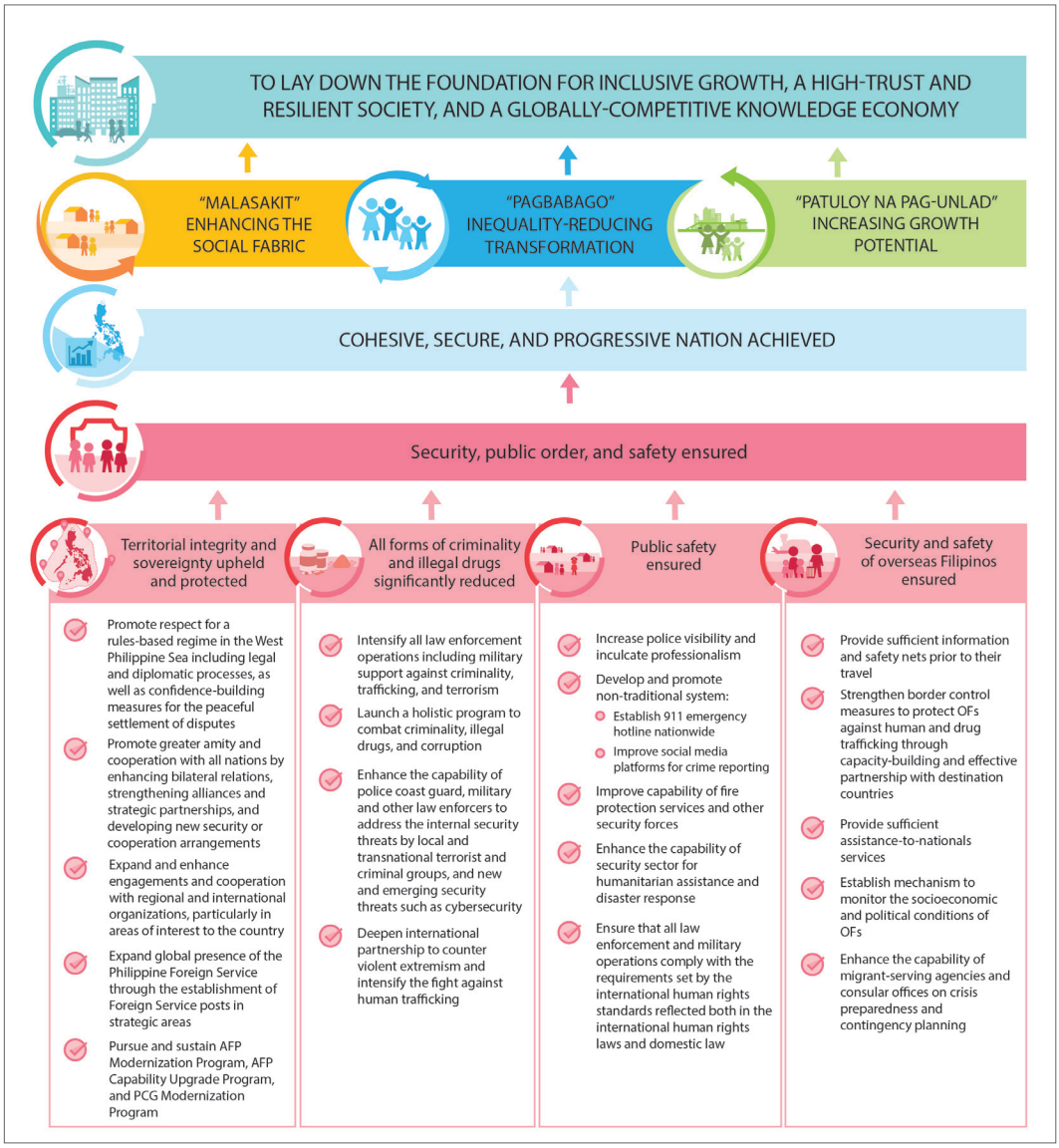
Strategic Framework

Ensuring security, safety, and public order is the foundation of the strategies in the PDP 2017-2022; hence, it is accorded high priority by the administration. The accomplishment of this strategy is broken down into: (a) territorial integrity and sovereignty upheld and protected, (b) all forms of criminality and illegal drugs significantly reduced, (c) public safety ensured, and (d) security and safety of OFs ensured.

Strategies

The strategies to achieve the targets involve several agencies in government, local government units, the local community, and the international community.

Figure 18.1 Strategic Framework to Ensure Security, Public Order, and Safety, 2017 – 2022



Subsector Outcome 1: Territorial integrity and sovereignty upheld and protected

Safeguarding the country's territorial integrity, sovereignty, and sovereign rights is a core national interest. This is most pressing in addressing issues on the West Philippine Sea where a complex, multi-faceted, and multi-party maritime dispute is the main challenge in achieving a stable and secure external environment. To uphold and protect territorial integrity and sovereignty, the following strategies will be implemented:

Promote respect for a rules-based regime in the West Philippine Sea. In diplomatic relations, the country will promote respect for a rules-based regime in the West Philippine Sea to reduce tensions and to forestall conflicts that could destabilize the region. This includes promoting respect for legal and diplomatic processes to clarify issues and resolve disputes on maritime jurisdictions in accordance with international law, particularly the 1982 UNCLOS. This also involves confidence-building measures to create a favorable environment for the peaceful settlement of disputes between and among parties that are directly involved, as well as other interested parties with a stake in the disputed area.

Promote greater amity and cooperation with all nations. The country will take steps to promote greater amity and cooperation with all nations especially with countries in the region by enhancing bilateral relations, strengthening alliances and strategic partnerships, and developing new security and cooperation arrangements.

Expand and enhance diplomatic engagements and cooperation in regional and international fora, particularly in areas of interest to the country.

Expand the global presence of the Philippine Foreign Service and key attached agencies through the establishment of foreign service posts in strategic areas. This will give greater voice to Philippine diplomacy and enhance diplomatic capability across a wider spectrum of international relations.

Pursue and sustain programs for the modernization and capability upgrade of AFP and PCG. Parallel to diplomatic efforts, a credible defense posture is critical to the protection and preservation of the country's territorial integrity, sovereignty, and sovereign rights. The AFP Modernization Program, AFP Capability Upgrade Program, and Philippine Coast Guard (PCG) Modernization Program are essential to safeguarding the core interests of the country and must be pursued and sustained. The facilities, equipment, and skills of maritime law enforcers and local government units (LGUs) will be enhanced to protect our strategic maritime interests and territorial waters, and to implement maritime laws and policies.

Subsector Outcome 2: All forms of criminality and illegal drugs significantly reduced

The government will prioritize the reduction of all forms of criminality and illegal drugs through a holistic program that involves combatting not only crimes but also the corruption that leads to the perpetuation of such acts. The following strategies will be pursued:

Intensify law enforcement operations, including military support to fight criminality, trafficking, and terrorism. The PNP will strengthen its efforts to reduce all forms of criminality through police presence, law enforcement and anti-criminality, intelligence, case recording and tracking, detection and investigation

services, case filing and arrest, capacity building, operational readiness, and disaster and emergency response. Police-community partnerships will be forged, complemented by information and education campaigns and community organization and mobilization to prevent and suppress crimes and lawlessness. The government will also pursue programs on counter-radicalization of the youth, to prevent and deter recruitment of the youth in sowing violence and terrorism.

Enhance the capability of police, coastguard, military, and other law enforcers to address the internal security threats posed by local and transnational terrorists and criminal groups, and new and emerging security threats such as cybersecurity.

Launch a holistic program to combat criminality, illegal drugs, and corruption. The national anti-illegal drug strategy includes suppressing the flow of illegal drugs supply through sustained law enforcement operations and reducing consumer demand for drugs and other substances through drug rehabilitation and massive preventive education and awareness programs (*see also Chapter 10*). Critical to this strategy is the arrest and prosecution of police personnel involved in the use and trade of illegal drugs through counter-intelligence operations. This will employ an effective investigation, prosecution, and monitoring of drug cases from investigation through prosecution (*see also Chapter 6*). To do this, government will coordinate closely with local and foreign counterparts and other international anti-drug organizations.

The Philippine Drug Enforcement Agency's campaign plan *Bandila* defines the strategies and mechanisms to address the drug problem in the next six years. The implementation of Barangay Drug Clearing Program, a multi-stakeholder strategy to clear the barangay of illegal drug activities and personalities, will be done through partnerships between local enforcement officers and the barangays. Together, they will determine the presence of illegal drug activities and provide the illegal drug users with treatment, rehabilitation, skills training, and support for their reintegration to the society. Family members of surrenderers and the community will likewise be provided with counseling and support services.

Complementary to the above strategy is the Department of the Interior and Local Government's *Mamamayan Ayaw Sa Anomalya-Mamamayan Ayaw Sa Illegal na Droga* (MASA-MASID) is the government's platform for stronger collaboration between the LGU, community, and national government to fight criminality, corruption, and illegal drugs. It institutionalizes volunteerism in the community, intensifies advocacy and education, and creates an enabling environment that encourages collaboration among community partners to effectively implement a community-based rehabilitation program. Mechanisms to validate information will be put in place to ensure the integrity of the campaign.

With respect to human trafficking, the Inter-Agency Council Against Trafficking (IACAT) and its member agencies will sustain and further strengthen enforcement, including detection, rescues, investigations, prosecutions and asset forfeitures, as well as support services for victim-survivors. For this purpose, the government at all levels will institute policies and provide the necessary resources, capacity building, and public information services.

Deepen international partnership to counter violent extremism and intensify the fight against human trafficking. The government will continue and further deepen partnerships with the international community through multilateral and bilateral mechanisms such as mutual legal assistance agreements, global cooperation, and international law enforcement

arrangements (e.g. International Criminal Police Investigation or INTERPOL and joint law enforcement operations). These initiatives can be bolstered with the amendment of the Philippine Immigration Act, which seeks to strengthen our legal and institutional framework; capability in border control at ports of entry; and regulation and registration of foreign nationals within the country. Such can help prevent the entry and stay of foreign terrorists, as well as transnational human traffickers.

For monitoring and evaluation, conduct of periodic nationwide Victimization Survey covering crimes and human rights violations will be pursued to augment administrative-based data.

Subsector Outcome 3: Public safety ensured

The government will develop responsive, highly professional, and competent public safety organizations that will ensure the safety of its citizenry. Local governments play a crucial role in maintaining public order, especially in addressing issues related to traffic, illegal settlers, sidewalk dwellers, and sidewalk vendors.

The following strategies will be implemented to raise standards for public safety:

Increase police visibility. The PNP will enhance its police presence and professionalism to maintain peace and order. Patrolling will continue to be the backbone of policing and the avenue for establishing and maintaining police presence in barangays. These interventions, which are all done in partnership with the community, include strategically-placed checkpoints, foot and mobile patrols, and focused and intelligence-driven operations against most wanted persons and members of criminal gangs.

Develop and promote non-traditional systems for responding to crime and emergencies. Non-traditional systems to enable our law enforcers to effectively respond to crimes and emergencies will be pursued through the establishment of an emergency hotline nationwide and promotion of social media platforms for crime and emergency reporting.

Improve capability of the fire protection services and other security forces. The capability of fire protection services and other security forces will be enhanced to ensure the protection of people's lives and properties as well as the country's vital and critical infrastructure. The capability of the security sector in humanitarian assistance and disaster response will also be enhanced.

Ensure that all law enforcement and military operations comply with the requirements set by the international human rights standards prescribed in international human rights laws and domestic laws, including the Constitution, which provides safeguards against human rights violations. Integration of human rights in police and military training will be institutionalized. The human rights offices, desks or units in all police and military headquarters will likewise be strengthened and expanded as an institutional mechanism for the protection and promotion of human rights. The Commission on Human Rights will intensify its monitoring of the compliance of the security sector to human rights standards in the sector's policies and operational manuals and their operations. Law enforcement operations will likewise ensure that the rights of women and children are promoted, protected, and fulfilled.

Enhance the capability of the security sector for humanitarian assistance and disaster response. The capacity of security sector agencies will be enhanced to respond to

gender and development issues, especially during natural and human-induced disasters.

Subsector Outcome 4: Security and safety of overseas Filipinos ensured

Armed conflicts, economic instabilities, and social tensions in other countries put the welfare of all Filipinos overseas at risk. To ensure the safety of OFs, the following strategies will be implemented:

Provide sufficient information and safety nets to OFs prior to their travel on business, leisure, temporary employment or in search of permanent residency abroad.

Strengthen border control measures to protect OFs against human and drug trafficking, through capacity building and effective partnership with destination countries.

Provide sufficient assistance-to-nationals services such as legal assistance and consular services in the home office and at all foreign service posts under the One Country Team approach. Technology will be improved for online and mobile application platform for legal aid, guidance, and counselling for migrants, 24/7 action line service for nationals in distress, and monitoring of victims of illegal recruitment and trafficking.

Establish mechanism to monitor the socioeconomic and political conditions of OFs. Persistent and emerging risks to the safety of OFs, especially the rise of global terrorism, call for measures that are more proactive. There needs to be a mechanism to actively and continually monitor the socioeconomic and political conditions of OFs.

Enhance the capability of migrant-serving agencies and consular officers on crisis preparedness and contingency planning. Aside from being prepared for socioeconomic shocks, the government must also be ready for natural shocks such as health emergencies. Capacity building for migrant-serving agencies and consular officers on crisis preparedness and contingency planning will therefore be enhanced. The Crisis Contingency Plan also needs to be reviewed, taking into account the recent experiences in some countries where a significant number of overseas workers were affected by geopolitical and socioeconomic downturns. (*See also Chapter 11)*.

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed on the following:

Table 18.1 Strategic Framework to Ensure Security, Public Order, and Safety, 2017 – 2022

LEGISLATIVE AGENDA	RATIONALE
Subsector Outcome A: Territorial integrity and sovereignty upheld and protected	
Pursue enactment of laws and policies to comply with commitments and obligations under treaties and international conventions to which the country is a state party, particularly UNCLOS	
Defense Procurement Act	To introduce amendments to Republic Act 9184, also known as the Government Procurement Reform Act, for a specialized procurement process for defense capabilities considering the classified nature of the assets to be acquired.
National Defense Act	To amend the National Defense Act of 1935 in order to: a) update national defense policies, principles, and concepts; and, b) codify various laws on national defense, the Armed Forces of the Philippines and the civilian bureaus in the defense establishment in order to streamline and professionalize the defense bureaucracy.
National Security Act	To provide for a national security policy and planning framework and institutionalize its planning process within national development planning. This will enable every administration to lay down a blueprint of its national security priorities, policies, and strategies.
Subsector Outcome B: All forms of criminality and illegal drugs significantly reduced	
Passage of PNP Reorganization and Modernization Act	To further improve its system capability in providing better police services for crime prevention, suppression, and investigation.
Amendment of the Comprehensive Dangerous Act of 2002	To enhance certain provisions to address the present drug situation in the country, particularly in the enforcement of the law, the functions of concerned government agencies, and the organization of PDEA. The amendments will support and complement the active and holistic approach being implemented in addressing the drug problem in the country.
Amendment of the Philippine Immigration Act	Aims to strengthen, among others, legal and institutional framework, capability on border control at ports of entry; and regulation and registration of foreign nationals within the country.
Subsector Outcome C: Public safety ensured	
Mandatory Reserve Officers' Training Corps (ROTC)	Based on the Constitutional provisions empowering the Government to call upon its citizens to defend the state and render personal military service and recognizing the vital role of the youth in nation-building, this will inculcate patriotism and nationalism, and encourage youth involvement in public and civic affairs. The DND envisions to create a pool of trained reservists by making the ROTC mandatory again in order to generate the needed human resources in times of war, calamities and disasters, and in support of the government's enhanced anti-crime strategy.
Amendments of Disaster Risk Reduction Management Act	To establish an independent Disaster Risk Reduction Authority with sufficiently high level of authority to lead the coordination, monitoring, oversight and implementation of disaster risk reduction and management. The authority will be equipped with the necessary competency and resources to engage new actors, particularly in the field of risk transfer and insurance, and built with the necessary structure to manage broader governance arrangements.

19 Accelerating Infrastructure Development

Chapter 19

Accelerating Infrastructure Development

Infrastructure, by definition, undergirds a country's socioeconomic development. The more strategically distributed it is – both sectorally and spatially – the better it is for inclusive growth and sustainable development.

With a growing economy, the Philippines requires more and better selected infrastructure investments, given its archipelagic landscape, expanding population and rapid urbanization. To support a higher growth trajectory and improve the quality of life in both urban and rural communities, infrastructure development will remain among the top priorities of the government over the medium term. Spending on infrastructure has to be intensified while addressing persistent issues and challenges hampering implementation, so that the so-called "Golden Age of Infrastructure" will form part of a solid foundation for reaching the country's Long-Term Vision 2040.

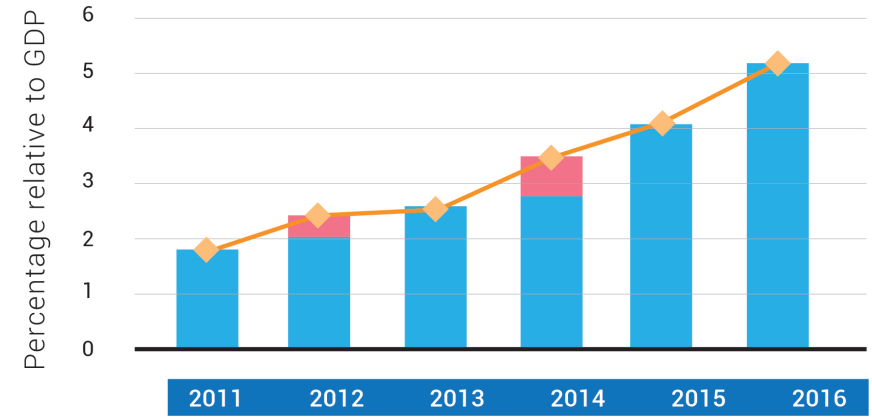
Assessment and Challenges

The significant achievements and critical reforms in infrastructure were not enough to keep up with the rates of population growth and urbanization. Overcoming the bottlenecks facing the sector will require addressing areas where the issues persist.

In terms of global performance and ranking of overall infrastructure quality, the Philippines lagged behind the five pioneer members of the Association of Southeast Asian Nations (ASEAN)[1]. The previous administration targeted to improve quality of the country's infrastructure by increasing the government's budget for infrastructure. However, the actual government spending for infrastructure, particularly in 2012 and 2014, fell short of the target.

[1] The Philippines is the worst among the ASEAN-5, or the original member countries: Indonesia, Malaysia, Philippines, Singapore, and Thailand.

Figure 19.1 Public Spending on Infrastructure[2]



	2011	2012	2013	2014	2015	2016
Gap	0.0%	0.14%	0.0%	0.76%	0.0%	0.0%
Actual	1.81%	2.06%	2.66%	2.74%	4.33%	5.12%
Target	1.60%	2.20%	2.50%	3.50%	4.00%	5.10%

Delays in implementation hampered the government's aggressive Public-Private Partnership (PPP) program. Considering the size of the country's PPP portfolio, further delays in implementation could eventually translate into huge fiscal impacts.

Transport

Despite the improvement and expansion of the transport systems, it is still inadequate vis-à-vis the growing demand. Additional roads and bridges, including drainage, were constructed and upgraded, and new alternative routes were opened in support of major economic sectors. Moreover, initial steps were taken towards developing new railway and other mass transit systems in and outside Metro Manila. Upgrading of the country's gateways were undertaken to ensure the continued viability of inter-island transport and to prepare for the upcoming integration with the rest of the ASEAN Community and Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA). However, transport facilities are either operated beyond capacities or are underutilized as envisioned ex-ante.

Road-based transport infrastructure remained a key point of convergence with other productive sectors but the quality remains inadequate. As of 2015, 97.19 percent (31,242 km) of national roads, 61.80 percent (15,377 km) of city roads, and 28.65 percent (31,075 km) of provincial roads were paved and 347,160 lineal meter (lm) bridges along national roads were made permanent along with the opening of new alternative routes. Still, the World Economic Forum-Global Competitiveness Report (WEF-GCR) 2015-2016 ranked the Philippines 97th out of 140 countries in terms of quality of road infrastructure.

[2] DBM and NEDA 2010-2015 data are based on actual outturns; 2016 data are based on the enacted Budget/General Appropriations Act (GAA); excludes infrastructure outlays funded from internally generated funds of LGUs, government-owned and controlled corporations, and private sector counterpart of PPP projects.

The following are the main problems: (a) low-quality public transport; (b) traffic congestion; (c) poor road network quality; and (d) inadequate road safety features. The lack of reliable and convenient public transport, coupled with poor infrastructure provision for non-motorized transport, is a major cause of congestion, especially in urban areas. Commuters continue to shift to private vehicle use, as evidenced by the faster growth in the number of registered motor vehicles, which further strained the already limited road space. Road congestion contributed to inefficiencies in utilization of public transport, airports, and seaports. Traffic management efforts were undertaken but failed to yield significant improvements. Economic losses due to traffic congestion were estimated to be at least ₱2.4 billion per day in Metro Manila alone (as of 2014). Outside urban centers, roads connecting production to commercial centers are typically constrained in terms of safety. Moreover, these remain vulnerable to the adverse impact of natural calamities.

Nevertheless, road-based transport continued to provide support to productive sectors. A total of ₱60.5 billion was invested from 2011 to 2015 for 463 tourism road infrastructure projects, which is more than quadruple of the ₱13.79 billion allocated from 2006 to 2010. On the other hand, connection of farm-to-market roads to the main logistics network was also prioritized to support the agriculture sector. To enhance the agribusiness competitiveness in Mindanao, an intermodal logistics system was put in place to address major constraints, such as high cost of transport and inadequate logistics infrastructure. Under the program for Mindanao Logistics Infrastructure Network, 477 km of the total 2,206 km of national and local roads, including bridges that need to be constructed, widened, and improved have been funded until 2016.

Upgrading and expansion of the country's mass transport network have not kept up with demand, and have not effected the desired shift from private car usage to high-capacity public transport solutions. According to the WEF-GCR 2015-2016, the quality of the Philippine rail infrastructure network ranks 84th out of 140 countries, with only three urban lines spanning 76.9 km in Metro Manila and two commuter lines of the Philippine National Railways (PNR) in Southern Luzon in operation. The development of mass transit systems connecting mainland Luzon and in emerging cities in the Visayas and Mindanao, is still at an early stage. The lack of high-capacity mass transportation options results in more trips using lower-capacity, road-congesting, and environmentally-polluting forms of transport and limited accessibility of business districts, commercial areas, industrial zones, educational institutions, and government centers.

The existing railway systems face problems of inter-operability (due to different gauge and signaling systems), congestion, and poor asset preservation/maintenance. Operation and maintenance of existing assets proved to be difficult, particularly since equipment and facilities require highly specialized parts and components, thus, entailing longer lead times between procurement and delivery. Existing Commission on Audit (COA) regulation, however, only allows a three-month inventory of spare parts.

The country's civil aviation sector met its overall target, but with regional integration, it will need to meet a significantly higher demand. In 2015, the air transport sector exceeded by 25.8 percent its overall target increase of 52.51 million annual international and domestic passenger volume. This may be attributed to, among others, the opening of secondary airports to more international flights, implementation of various airport improvement and operations and maintenance (O&M) projects, upgrading of the Clark International Airport (CRK), and

implementation of the ASEAN Multilateral Agreement in Air Services (which opened air traffic for national and local carriers to fly to and from the capital cities of ASEAN countries).

Nonetheless, air traffic congestion remains an issue among the major airports[3] especially in the urban centers. The lack of night-time flying capabilities in other airports adds to the day-time airport congestion. Majority of passengers, even those from the natural catchment area of CRK preferred to use the NAIA because of the availability of more flights in that airport.

Existing capacities of most of the airports in the country will be unable to meet the expected demand unless new facilities are developed and existing ones are upgraded. A network perspective must be adopted to address congestion, to include not only the airside and landside facilities but also the access roads. For the greater capital region, what is needed is a clear policy direction as to the site for the future international airport in the vicinity of Metro Manila and an optimal operational arrangement with CRK, in accordance with international practices and standards and the regional economic strategies of the country.

The country's port system benefitted from a number of projects but infrastructure quality and operational efficiency still need to be improved. Inter-island water transportation passengers increased from 52.7 million in 2010 to 62.76 million in 2015. Cargo transported through the country's port system also increased from 166.40 million metric tons in 2010 to 223 million metric tons in 2015. A number of improvement projects for the port system including the oad-Roll-on-Roll-off (RoRo) network and conduct of feasibility, masterplan, and engineering studies were undertaken to ensure efficient operations and prepare the country's port system for regional integration with the rest of the ASEAN.

Table 19.1 Traffic in Major Container Ports: 2015[4]

PORT	OPERATOR	CONTAINER TRAFFIC IN TWENTY-FOOT EQUIVALENT UNIT	
		ACTUAL	CAPACITY
Manila International Container terminal	International Container Terminal Services Inc.	1,960,699	2,500,000
Manila North Harbor (domestic)	Manila North Harbor Port Inc.	1,137,455	2,000,000
Manila South Harbor	Asian Terminals Inc.	877,593	1,200,000
Batangas Port	Asian Terminals Inc.	188,077	+350,000
Subic Port	International Container Terminal Services Inc.	123,558	600,000
Cebu International Port	Oriental Port and Allied Services Corporation	312,000	580,000
Davao International	Davao International Container Terminal, Inc.	267,283	705,000
Container Port	Davao International Container Terminal, Inc.	267,283	705,000

[3] For example, the Ninoy Aquino International Airport was preferred by majority of passengers, even those from the natural catchment area of CRK, because of the availability of more flights.
[4] Philippine Ports Authority. Retrieved from http://www.ppa.com.ph/?q=content/statistics-1

Inefficiencies in port operations resulted in congested access roads. For instance, the increasing cargo volumes in the ports of Manila and Cebu caused higher volumes of truck container traffic in access roads. To help decongest the major thoroughfares of Metro Manila, the Pasig River ferry system was rehabilitated but sustaining its operations remains problematic. A major solution was to encourage utilization of the Batangas and Subic ports. But users still preferred the major ports over these alternative ports because of the latter's inadequacy of ancillary services, such as proximity to consolidators; warehouses and availability of carriers, service providers, forwarders and shipping companies; reliability of the shipping schedules; efficient cargo acceptance and release; and affordable rates. Again, this points to the need to adopt a systems approach in infrastructure provision.

The provision of adequate transport security has been constrained by the limited assets and institutional capacities of concerned agencies. To ensure that standards and protocols are up-to-date, the Office of Transportation Security (OTS) conducted a series of training programs to inform security officers with the latest threats, aviation security incidents, security measures (new technology) and procedures. The OTS, with assistance from the Armed Forces of the Philippines (AFP), Philippine National Police-Aviation Security Group and Maritime Group (PNP-AVSEGROUP), and the Philippine Coast Guard (PCG),) was able to intercept and confiscate various prohibited items in different airports and ports. However, it was not able to vet all the needed security plans and programs in the absence of the Civil Aviation Authority of the Philippines' airport security programs.

Meanwhile, the PCG was only able to respond to 95.98 percent of all the maritime distress calls in 2015. PCG has limited patrol and response, as well as, search and rescue capabilities, especially considering the vast coastline to be manned and guarded. Moreover, majority of its assets are non-operational or poorly-maintained.

Water Resources

Despite the abundance of water resources and the many efforts to utilize and manage these, service remain inadequate. The country has a total of 421 principal and 18 major river basins and renewable water totaling 479 billion cubic meters (bcm)[5] from which water can be drawn for beneficial use[6]. The total volume of water rights granted for consumptive use is 87,000 million cubic meters (mcm), which is 60 percent of the 146,000 mcm potential volume for use. Despite the abundance of the resource and programs and projects, gaps in water services remain. Part of the problem can be traced to the fragmented governance structure of the sector. There is no apex body that would oversee overall planning, programming, and policy formulation based on sound data. This resulted in uncoordinated initiatives leading to inefficient provision of services.

Universal access to water supply, sewerage, and sanitation (WSSS) is yet to be achieved. Of the country's 22.7 million families, 14.5 percent still have no access

[5] Food and Agricultural Organization of the United Nations. 2014. *AquaStat*
[6] Of this, renewable surface water and groundwater totaled 444 bcm and 180 bcm, respectively. Both figures still total 479 bcm when the overlap between the surface water and groundwater (145 bcm) is subtracted.

to safe water supply[7], whereas the target is to reduce this to 13.1 percent by 2015. In fact, in ten regions, the proportion of households with no access to safe water supply is even higher than the national average. In addition, 337 municipalities are still considered waterless, which fell short of the 2015 target of lowering it to 274. These are mostly located in the nation's 10 poorest provinces[8].

As of 2015, 5.9 percent of households did not have access to a basic sanitary toilet facility, although the target was met. Only 4.4 percent of households nationwide are served by sewerage systems[9]. Furthermore, despite the 40 percent subsidy of the national government (NG), under the National Sewerage and Septage Management Program (NSSMP)[10] for service providers to establish sewerage services in the 17 highly urbanized cities outside Metro Manila, no sewerage projects have been implemented. Untreated wastewater exacerbates the non-availability of raw water sources for new development.

Many small water districts (WDs)[11] and utilities operated by local government units (LGUs) have difficulty sustaining operations and generating capital for expansion due to low tariffs and consumers' low willingness to pay.

The improved and equitable delivery of basic WSSS infrastructure is hindered by: inadequate financing; low technical capacities of small service providers; difficulty in acquisition of right-of-way for sewer lines; lack of available land for water supply and wastewater treatment facilities; and institutional challenges such as, among others, lengthy processing of water permit applications and absence of a single, independent and predictable regulatory regime. For water critical areas and the National Capital Region (NCR), there is a need to find alternative water sources to ensure water security.

Irrigation systems and appurtenant drainage facilities expanded marginally in recent years, and performance of irrigation systems was low due to deterioration and climate-related factors, among others. Irrigation service to support agricultural production increased slightly from 56.57 percent of the total potential irrigable area of 3,019,609 hectares (ha)[12] in 2014 to 57.33 percent in 2015, which is below the target of 70.91 percent. However, a total of 360,912 ha[13] of irrigated land have dysfunctional and aging canals. The performance of some national and community irrigation systems remained below par due to typhoons and inefficient water management practices. Irrigation systems performed poorly due to inadequate resources and the lack of capacity of the National Irrigation Administration and irrigators' associations.

Delayed fund releases, peace and order problems, and right-of-way issues hampered the implementation of programs and projects. Degradation of watersheds also reduced the quantity and quality of water for irrigation, and caused flooding during the rainy season and scarcity during the dry season. It resulted in rapid soil erosion that affected the conveyance of irrigation and drainage canals.

While more flood-prone areas have been protected, flood management has become more challenging due to climate change

[7] Safe water supply refers to water accessed through a pipe system into dwellings, yards or plots; through public tap; and through protected wells. (Philippine Statistics Authority. 2014. *Annual Poverty Indicator Survey (APIS)*)
[8] National Anti-Poverty Commission (NAPC), 2015
[9] PSA National Demographic and Health Survey (NDHS), 2013
[10] This program is spearheaded by the Department of Public Works and Highways (DPWH) as mandated by the Clean Water Act of 2004
[11] WDs with less than 3,000 connections.
[12] Source: National Irrigation Administration website
[13] The figure corresponds to 21% of the total Firmed-Up Service Area

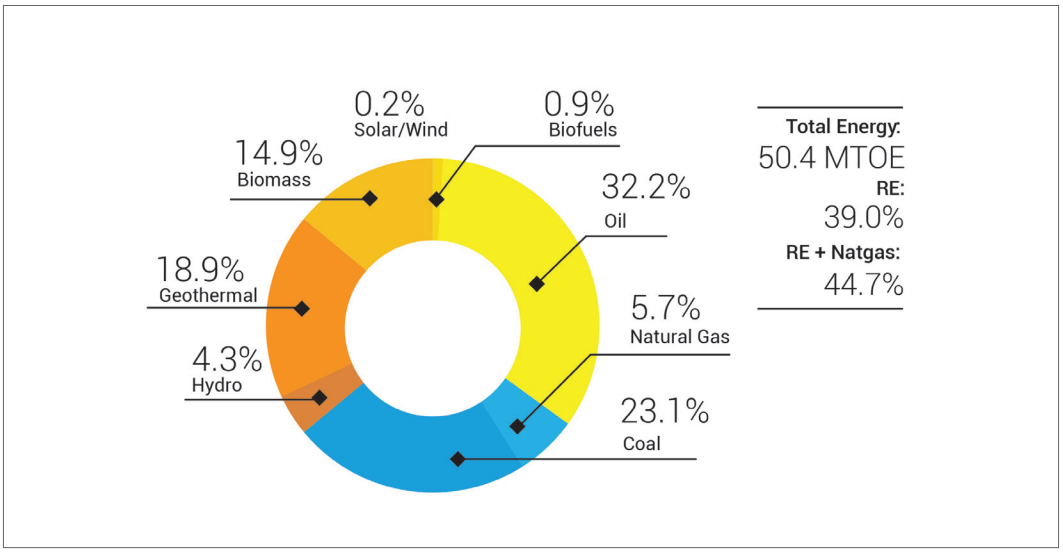
impact and institutional issues. Protected flood-prone area increased from 12.8 percent in 2011 to 18.33 percent or 131,522 ha in 2015[14]. In 2015, it was observed that flood waters in NCR subsided 25 minutes to 1.5 hours after heavy rains.

The major challenge in the sector is the increasing frequency and intensity of flood occurrences due to climate change. Another concern is the unclear delineation of responsibilities of LGUs and NG on the implementation and O&M of flood management and drainage structures. Flood-prone areas in Regions I, II, III, VI, XII, XIII, and ARMM are particularly huge. Specifically, the provinces of Zamboanga Del Sur, Zamboanga Sibugay, Camarines Sur, and Compostela Valley, among others, are also considered highly susceptible to flooding.[15]

Energy

The country's energy self-sufficiency level of 53.5 percent fell short of the 60 percent target in 2015. The country's total primary energy supply was placed at 50.4 metric tons of oil equivalent (MTOE) with local energy comprising 26.9 MTOE of the total. Oil remained the country's major energy source accounting for 32.2 percent of the energy mix. *(See Figure 19.2)*

Figure 19.2 Philippine Energy Supply as of June 2015[16]



[14] Source: DPWH Accomplishments as of 2015 and Completed major flood control studies for 37 major flood control projects and the JICA-assisted Nationwide Flood Risk Assessment Study for 46 priority river basins (covering 416,327 has) completed in 2008; Flood prone areas in the country total 717,524 ha.
[15] Based on the map of flood susceptibility in the Philippines from the Mines and Geosciences Bureau.
[16] Department of Energy (DOE)

The country's total final energy consumption reached 29.8 MTOE with the transportation sector accounting for 10.6 MTOE, and the residential sector for 8.7 MTOE.

Power generation has increased but is still insufficient to meet the growing demand, and the situation is further exacerbated by feedstock security concerns. Policies have been initiated to increase competition in power generation and support development in renewable energy. However, power supply is still insufficient to meet the ever-increasing demand for electricity which, in turn, contributes to the high cost of electricity.

The Philippines' total installed capacity grew by 4.6 percent from 17,944 megawatts (MW) in 2014 to 18,765 MW in 2015. Power generation grew by 6.7 percent with the addition of 5,152 gigawatt-hour (GWh) from 2014 to 2015.

The Luzon grid had thin reserves up until September 2016 while the electricity supply in the Visayas was critical in the second semester of 2016. On the other hand, Mindanao has sufficient reserves until February 2017, with reserve capacity of more than 50 percent. While fiscal and non-fiscal incentives were provided to encourage investments in the sector, the timely entry of the private sector in power generation has been impeded by protracted red tape in the processing of necessary permits.

Despite the passage of the Renewable Energy Law in 2008 and the adoption of the National Renewable Energy Program for 2012-2030, only 7,013.9 MW of renewable energy has been installed out of the potential 14,499.8 MW.

Hydropower plants comprised 19.2 percent of the country's total installed capacity, but extremely hot or dry weather conditions, like the El Niño phenomenon, affected the adequacy and reliability of energy supply.

Natural gas from Malampaya powers 23 percent of the Luzon dependable capacity. But the depletion of the Malampaya Natural Gas Field, as well as the expiry of the Gas Supply Purchase Agreement between Shell Philippines Exploration and its off-takers, threatens energy security. Continued exploration works in existing petroleum service contracts failed to produce new indigenous natural gas of commercial quantity. Disputes in the West Philippine Sea also contribute to uncertainties in petroleum exploration. The lack of policies and backbone infrastructure hampers the growth of the natural gas industry in the country.

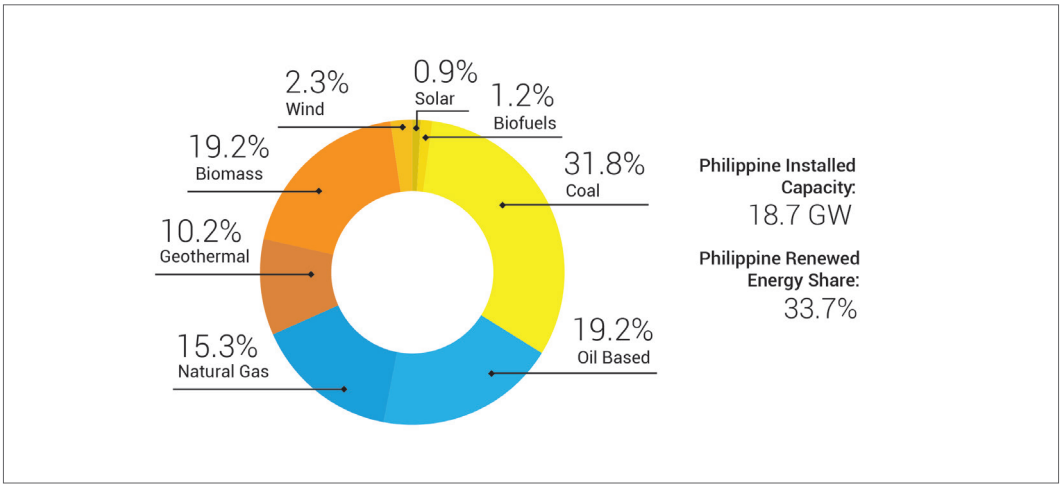
Meanwhile, the private sector continued to invest in coal-fired power plants in view of shorter gestation period and in response to the country's baseload capacity requirement. Indonesia supplies 70 percent of the Philippines' coal import needs, but their moratorium on coal shipments following the risk of kidnappings and piracy in the West Philippine Sea threatened the country's coal supply.

Table 19.2 Installed Capacity (in MW), as of 2015[17]

GRID	INSTALLED	DEPENDABLE	AVAILABLE	NEWLY INSTALLED (1st HALF 2016)
Luzon	13,668	12,179	9,624	662
Visayas	2,683	2,228	2,001	281
Mindanao	2,414	2,025	1,563	328
Total	18,765	16,432	13,188	1,271

[17] DOE

Figure 19.3 Renewable Energy Share in Philippine Installed Capacity: 2015[18]



Development of the transmission network and distribution facilities was hampered by issues on right-of-way, security and resiliency to natural calamities. The lack of interconnection between Mindanao and the Luzon-Visayas grid meant that surplus in the former could not be utilized in the latter, and vice-versa. Likewise, there is still no established structured market in Mindanao similar to the existing wholesale electricity spot market (WESM) in Luzon and Visayas. Aggravating the issue of reliable supply is the concern on resiliency against natural calamities and the safety of energy facilities against such issues as the sabotage of electricity transmission and distribution facilities, especially in Mindanao.

In addition, the difficulty of acquiring right-of-way necessary for the National Grid Corporation of the Philippines to implement transmission line projects is a constant obstacle to grid expansion. This is especially true in urban areas and even in the rural areas with indigenous peoples. Limited island-to-island interconnection is also seen as a hindrance to extending secure and reliable electricity service.

Part of the Philippine commitments to the ASEAN are the ASEAN Power Grid (APG) and the expansion of the Trans-ASEAN Gas Pipeline (TAGP). The Philippines has yet to develop its domestic pipelines prior to connection with other ASEAN countries due to the absence of an enabling legal and regulatory framework that will oversee and regulate the natural gas industry, including incentives to prospective investors[19].

While there has been considerable effort in recent years to pursue nationwide distribution of electricity, gaps in access especially in the rural and off-grid areas remain. The household electrification level has reached 89.61 percent (20.36 million out of 22.72 million households) in July 2016 through the provision of technical and financial support to electric cooperatives and the implementation of missionary electrification programs, including the New Power Provider and Qualified Third Party[20] programs. However, much is still needed to achieve the 7th sustainable development goal of universal energy access by 2030, particularly in Mindanao where household electrification level stands only at 72.38 percent *(see Table 19.3)*.

[18] Source: DOE

[19] *2012-2030 Philippine Energy Plan: Overview and Executive Summary*. Retrieved from https://www.doe.gov.ph/sites/default/files/pdf/pep/2012-2030-pep-executive-summary_revised.pdf

[20] The Qualified Third Party program is designed to attract alternative service providers and private investments in rural electrification. It is also responsible for the generation of power and its effective distribution to the area/community.

Table 19.3 Household (HH) Electrification as of December 2015[21]

ISLAND	TOTAL HH	SERVED HH	UNSERVED HH	ELECTRIFICATION LEVEL (%)
Luzon	13,803,814	13,088,991	714,823	94.82
Visayas	4,076,310	3,767,391	308,919	92.42
Mindanao	4,841,306	3,503,952	1,337,354	72.38
Philippines	22,721,430	20,360,334	2,361,096	89.61

As of June 2016, the total rated capacity of the 285 National Power Corporation-Small Power and Utilities Group power plants used in missionary electrification is 193.72 MW, with a total dependable capacity of 136.75 MW. Most of the power plants operate for limited hours only (i.e., 4, 8, or 12 hours).

Generally, the distribution and provision of electricity has been hampered by the following:

a. High costs of fuel and logistical support for diesel plants and the low capacity to pay and low willingness to pay for the service of households especially in rural areas
b. Low technical and absorptive capacities of some electric cooperatives
c. Increasing number of households and service demands (e.g., request from 8 hours per day to 12 hours per day service)
d. More funds needed for missionary electrification to benefit more marginalized communities in off-grid areas
e. Few private sector participants
f. Various institutional bottlenecks such as compliance requirements of LGUs, right-of-way, and peace and order

Gains in energy efficiency and conservation have been achieved but more work is needed to optimize the benefits of demand-side management. In 2015, the country was able to save energy amounting to 5,199.6 kiloton of oil equivalent through the various programs under the National Energy Efficiency and Conservation Program. Moreover, as of March 2016, DOE has accredited 15 energy service companies (ESCOs)[21] to accelerate the implementation of the government's energy efficiency and conservation (EEC) initiatives[22]. The initiatives will need to be expanded to include the development and promotion of new technologies and programs. This is to encourage the practice of sensible energy habits in government and private establishments, households and transportation to achieve greater energy savings.

Even at full capacity, indigenous supply is still way below the local demand to meet the increasing blending requirements of the local fuel industry. Due to the implementation of Republic Act 9367 (Biofuels Act) in 2009, 249 million liters (ML) and 179 ML of fuel have been displaced in 2015 through the mandated blending for bioethanol and biodiesel, respectively.

[21] DOE. March 2016. *List of DOE Accredited ESCOS as of March 2016*. Retrieved from https://www.doe.gov.ph/list-doe-accredited-energy-service-companies-escos-march-2016

[22] To provide the appropriate policy support for energy efficiency and conservation programs, the DOE has put forth the Energy Efficiency and Conservation Roadmap, which specifies the direction toward an energy-efficient Philippines by 2030. To implement the roadmap, the National Energy Efficiency and Conservation Action Plan for 2016 to 2020 was developed across energy-using sectors.

However, total bioethanol and biodiesel plant capacities in the country stand at 198 ML and 584.9 ML annually, respectively.

The Philippines' electricity rates remain amongst the highest in Asia.[23] Electricity rates in the Philippines are high mainly because there is no state subsidy for the rates of privately-generated, transmitted, and distributed power supply. Users are charged with the feed-in-tariff (FiT)-All, universal charges, value-added taxes (VAT), and system losses in transmission and generation. There were other problems like minimal competition in the energy market, the alleged market manipulation, and other unforeseen disruptions in power supply .

While reducing the cost of electricity is vital to improving the competitiveness of industries and encouraging private sector investments, there should be a balance between the rates, service reliability, and the environmental implications of the different technologies utilized. Too much intermittent renewable energy affects grid reliability, but reliance on cheaper fuels, such as coal, increases greenhouse gas emissions. An optimal energy mix is needed to provide maximum benefits at the most reasonable costs to consumers while safeguarding the sector from external shocks.

Information and Communications Technology Infrastructure

Although the country's information and communications technology (ICT) infrastructure has increased, it has not advanced enough to be at par with other ASEAN countries. Despite the increase in service coverage (i.e., cellular mobile at 99.38 percent and broadband internet at 76.44 percent of cities and municipalities), the Philippine ICT infrastructure is still inadequate and pales in comparison with competing economies in Asia in terms of quality and affordability. The country's broadband download speed is among the slowest at 4.3megabits per second (Mbps) vis-à-vis ASEAN-5 average of 9.6Mbps in 2016[24], while the cost of fixed broadband as a percentage of Gross National Income (GNI) is at 7.53 percent, way above the 5.0 percent affordability threshold.[25]

With the adoption of the Integrated Services Digital Broadcasting-Terrestrial Standard in 2013, the digital terrestrial television broadcasting (DTTB) migration is underway. Through this, the country is expected to benefit from the freeing up of spectrum frequencies that may be reallocated to other wireless ICT applications and services.

Through the e-Government Master Plan 2013-2016, the Integrated Government Philippines Project provided infrastructure, data centers, and other support systems to improve the country's e-government system. The creation of the Department of Information and Communications Technology (DICT), through the enactment of Republic Act 10844 in 2016, is an important milestone to advance the country's national ICT development agenda. This will address the inadequate ICT infrastructure and institute reforms to foster real market competition.

Social Infrastructure

Social infrastructure (i.e., housing, education, health and solid waste management facilities) has increased during the past years but remains inadequate to meet the growing demand for basic social services.

[23] Ibid
[24] Akamai's State of the Internet Report Q3 2014 to Q2 2016 Connectivity Reports.
[25] International Telecommunication Union (ITU). 2016. *Measuring the Information Society Report 2016.*

Through various school building programs and projects, the provision of educational facilities has improved, however, classroom-to-pupil ratios remain low. Infrastructure provision for education reduced classroom-to-pupil ratio from 1:39 in 2010 to 1:34 in 2014 for the primary level, and from 1:54 to 1:48 for the secondary level in in the same period. However, these fell short of the targets at 1:32 and 1:47, for the primary and secondary levels, respectively.

From 2010 to 2016, the total number of classrooms constructed was 118,686[26], which already covered the classroom deficit of 66,800[27] in 2010. Another 66,463 classrooms are under procurement. The implementation of the K to 12 Program added another 34,057 classrooms to the need[28]. Furthermore, 3,819 schools still lack water supply and sanitation facilities.

The Department of Education also failed to utilize more than half its budget for capital outlay during the period 2012 to 2015[29].

While the overall number of hospitals and health facilities constructed or upgraded increased, several LGUs were unable to provide the necessary resources to keep such infrastructures functional. As of 2016, the total number of hospitals and healthcare facilities constructed or upgraded has reached 29,018 units, composed of 26,048 barangay health stations (BHSs), 2,626 rural health units (RHUs)/urban health centers, 234 district hospitals/LGU infirmaries, 27 provincial hospitals, 13 city hospitals, and 70 Department of Health (DOH) hospitals. DOH has cited the lack of affordable land as a challenge for the timely construction and expansion of primary healthcare facilities.

A bigger problem is that LGUS are unable to provide adequate financial support, human resources and equipment necessary for the operation and maintenance of local health infrastructure facilities. Thus, these facilities are rendered non-functional or underutilized.

As of 2016, there are 14 DOH treatment and rehabilitation centers in the country with programs to reintegrate recovering drug dependents back into society. With the intensified government effort in curbing the drug problem, there is a need to provide additional infrastructure, i.e., at least one rehabilitation center in each province as mandated under the Dangerous Drugs Act of 2002.

The housing sector continues to provide decent shelter to the underprivileged while striving to keep up with growing housing needs and limited resources allotted to the sector. From 2011 to 2016, the National Housing Authority, Socialized Housing Finance Corporation, and Home Development Mutual Fund provided 730,181 socialized and low-cost housing units. Under Oplan Likas[30], 8,456 informal sector families (ISFs) were resettled in-city and 73,135 off-city, as of September 2016.

However, despite the efforts of key shelter agencies (KSAs), housing needs remains huge. For 2011 to 2016, an estimated 5.55 million households were in need of housing facilities[31]. About 16 percent lived in unacceptable housing[32] while another 8.83 percent were doubled-up households in acceptable housing. This is further expected to increase to 6.8 million during the period 2017 to 2022, which includes increase in inventory losses due to households affected

[26] Secretary of Education Leonor Magtolis Briones. November 2016. Quality, Accessible, Relevant, and Liberating Basic Education for All. *Education Summit 2016*, Pasay City, 03 November 2016. Retrieved from http://www.deped.gov.ph/sites/default/files/page/2016/2016-11-03%20Education%20Summit.pdf

[27] Educational Facilities. Retrieved from http://www.gov.ph/report/educational-facilities/

[28] Department of Education. 2015. *Physical Report of Operation as of 30 September 2015*. Retrieved from http://www.deped.gov.ph/sites/default/files/page/2015/2015%20DEPED%20Physical%20Plan%20BAR%201Part%20 B_2015Q3%20%28as%20of%20September%202015%29.pdf

[29] Statement of Allotment, Obligation and Balances (SAOB) FYs 2012-2015. Retrieved from http://www.dbm.gov.ph/?page_id=1824

[30] A 5-year program for the resettlement of ISFs living in danger areas within Metro Manila

[31] Philippine Statistical Research and Training Institute (PSRTI)

[32] Includes those living in rent-free without the consent of owners, marginal housing, homeless, and those living in dilapidated or condemned housing.

by natural calamities and project-affected families due to expected accelerated infrastructure spending.

The major challenges faced by the housing sector include:

a. Lack of affordable land, which forced government to relocate communities off-city where opportunities are scarce or resort to in-city high-density mass housing. LGUs are also reluctant to accept more ISFs.
b. Limited appropriations for the sector
c. Cumbersome bureaucratic processes
d. Delayed or inadequate provision of basic and other services
e. Institutional limitations of national and local government entities to fulfil their respective roles in providing decent shelter.

LGU compliance with the Ecological Solid Waste Management Act (ESWMA) has been low and majority of local areas are still unserved by solid waste management (SWM) facilities or material recovery facilities (MRF). Increasing population and consumption also increased the generation of wastes, exacerbating the problems of inefficient collection and inadequate solid waste management (SWM) facilities. The country's total solid waste generation is estimated at 40,000 tons per day or 14.6 million tons per year. Despite policy reforms, various financing windows, and legal action against non-complying LGUs, only 37 percent of all LGUs[33] have complied with all aspects of the Republic Act 9003 (Ecological Solid Waste Management Act of 2000). Only 1,350 SWM plans were submitted for approval and review to the National Solid Waste Management Commission and the Department of Environment and Natural Resources (DENR) Environmental Management Bureau. Only 31.28 percent of barangays are covered by SWM facilities and 30.92 percent by materials recovery facilities. These are below the 2016 targets of 67.39 percent and 77.10 percent, respectively.

Nonetheless, the number of illegal disposal sites operating nationwide has decreased from 1,172 in 2010 to 546 in mid-2016. The remaining sites, which should have been phased out in 2006, are composed of 337 open dumpsites and 209 controlled disposal facilities.

The high capital investments associated with the establishment and operation of SWM facilities, the perceived low willingness of LGU constituents to pay for SWM services, and the LGUs' lack of financial and technical capacity continue to hamper the full implementation of RA 9003. In addition, the sector continues to be challenged by:

a. Political factors that render the clustering sanitary landfills infeasible and unsustainable
b. Availability, suitability, and social acceptability problems in site selection for sanitary landfills
c. Technological constraints arising from existing legal issuances
d. Lack of or unconsolidated data on markets for recyclable materials
e. Limited awareness of communities and the general public on waste segregation and on recycling, recovery, and composting technologies

Facilities for managing health care and hazardous wastes remain inadequate and continues to be challenged by the absence of data needed to develop plans, policies, programs and projects to ensure that waste generators properly handle their wastes. Currently, only the waste management of DOH-registered facilities are monitored. Although the Philippine Inventory of Chemicals and Chemical Substances lists 44,600 chemicals for monitoring, as of latest data, only seven poison control centers, 108 DENR-recognized privately-owned hazardous waste treatment facilities, and 265 DENR-accredited hazardous waste transporters exist to cater to about 11,162 hazardous waste generators[34].

The prohibitive cost of available technologies continues to impede the health care waste management sector. For hazardous waste,

[33] Includes municipal, city, and provincial LGUs.
[34] *Philippine National Environmental Health Action Plan 2010-2013 Final Draft.* July 7, 2010

insufficient capacity (technical experts on toxicology, infrastructure support for laboratory and disposal facilities, technical resources to detect hazardous waste, and trans-boundary smuggling) and lack of proper labelling for household chemicals (except for pesticides) inhibit proper management.

Prison facilities are extremely overcrowded and the number of inmates continues to rise. As of 2015, the population in 464 jails of the Bureau of Jail Management and Penology (BJMP) and 474 jails of the Philippine National Police (PNP) has reached a total of 94,320 detainees and prisoners. Meanwhile, as of November 2016, the seven prison facilities under the Bureau of Corrections (BuCor) held 41,400 prisoners. BJMP jails are 398 percent congested (based on the ideal capacity of 4.7 m^2 per inmate). Congestion is worse in Regions IV-A (720 percent), III (676 percent), IX (565 percent), I (549 percent) and XI (531 percent). Examples of overpopulated city and municipal jails include those of Malolos City; San Pedro, Laguna; and Gen. Trias, Cavite. Their congestion rates exceed 2,000 percent. Prison facilities under the BuCor, on the other hand, have an average congestion rate of 159 percent. Prison facilities with the worst rates are the Leyte Regional Prison (333 percent), Davao Prison and Penal Farm (250 percent), and the New Bilibid Prison (182 percent).

Strategic Framework

As shown in the Strategic Framework *(Figure 19.5)*, infrastructure development supports all three pillars and intermediate goals of the plan, as it is vital to enhancing the social fabric, reducing inequality, and increasing the country's growth potential. To this end, the overarching objective for the infrastructure sector in the medium-term is to accelerate infrastructure development and ensure that operations of infrastructure systems and facilities will be sustained.

Targets

Table 19.4 shows the indicators and corresponding targets for the infrastructure sector.

Table 19.4 PDP Targets to Accelerate Infrastructure Development

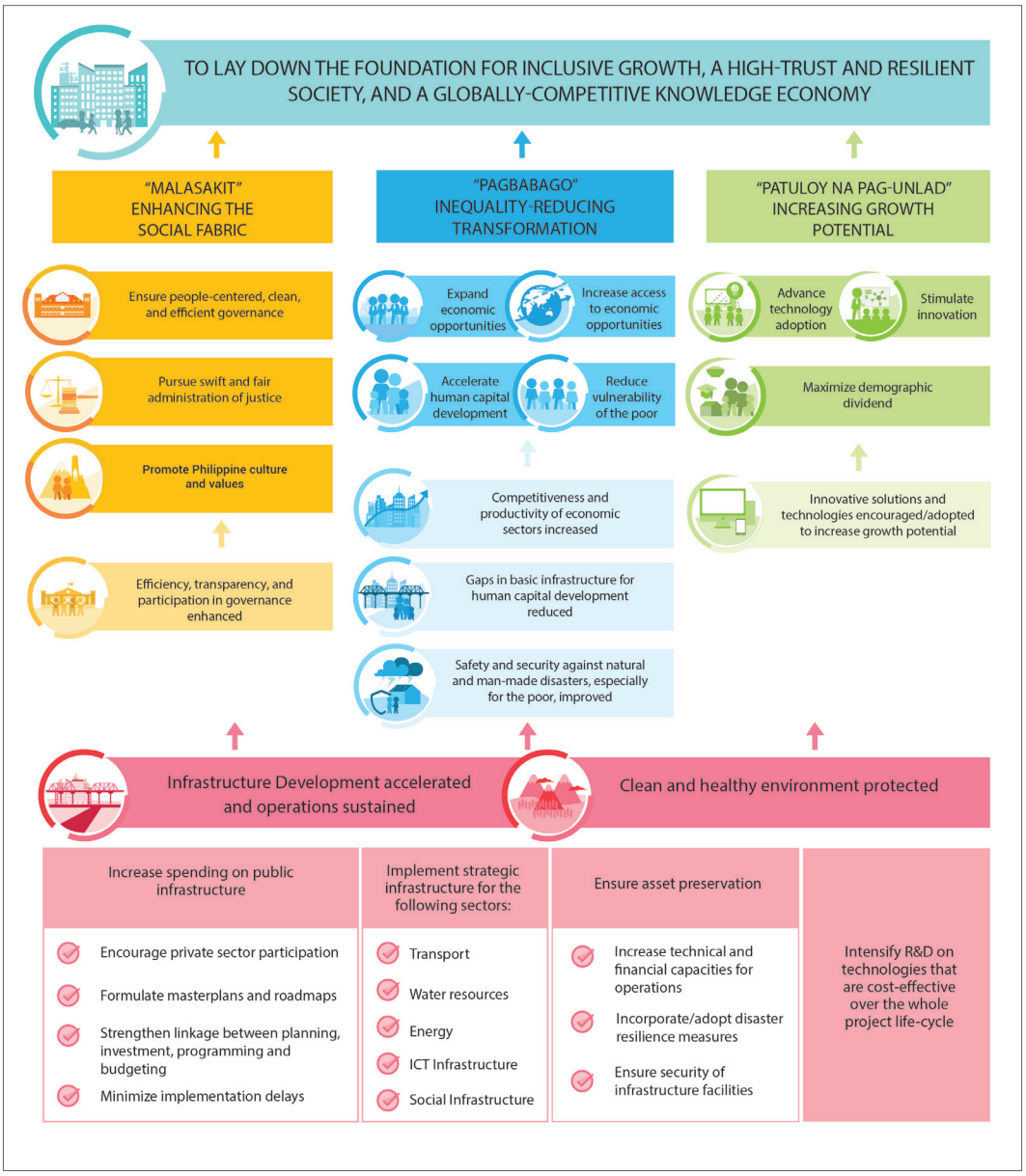
INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Societal goal: Foundation for inclusive growth, a high-trust society and a globally competitive knowledge economy created	2015	223,672,070	312,887,025
Public infrastructure spending increased, in % GDP	2016	5.1	7.4
TRANSPORT INFRASTRUCTURE			
Road Transport			
International Road Roughness Index in national primary roads achieved	2015	4.62	3.0
Rail Transport			
Optimal capacity in train systems achieved, in passengers per square meter (sq.m.)	2015	5-8	4-8
Philippine National Railways			
(optimal capacity = 6 passengers per sq. m.)	2015	6	6
Light Rail Transit Line 2			
(optimal capacity = 4 - 5 passengers per sq. m.)	2015	5	4-5
Air Transport			
Air passenger traffic increased, (international and domestic), in number of passengers	2015	57,487,886	73,976,695
Air cargo traffic increased, (international and domestic), in MT	2015	805,977,094	989,820,159
Number of round-trip international flights increased	2015	210,813	278,690
Number of round-trip domestic flights increased	2015	508,661	596,476
Water Transport			
No. of shipcalls increased	2015	395,095	408,848
No. of passengers transported via sea increased	2015	62,762,732	84,564,305
Cargo shipped increased (international and domestic), in MT	2015	223,672,070	312,887,025
Container traffic increased, in twenty-foot equivalent unit (TEU)	2015	5,861,830.00	9,006,318
No. of vehicles carried by RORO vessels increased	2015	4,693,276.00	8,491,763
WATER RESOURCES			
Water and Sanitation			
Percentage of HHs with access to safe water supply increased	2014	85.50	95.16
Percentage of HHs with access to basic sanitation increased	2014	94.10	97.46
Irrigation			
Ratio of actual irrigated area and area required for agricultural development increased	2015	57.33	65.07
Cropping intensity increased, in percent	2015	National Irrigation Systems (162)	
Communal Irrigation Systems (121)	156.16		

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
POWER/ENERGY			
Power requirements met, maintained above 100 percent = available capacity/(total peak demand + required reserve)	June 2016	107.2	113.0
Luzon	June 2016	107.6	120.0
Visayas	June 2016	109.3	96.0
Mindanao	June 2016	102.0	121.0
Available capacity supply increased, in megawatt (MW)	June 2016	16,791	24,248
Luzon	June 2016	12,394	17,272
Visayas	June 2016	2,383	3,105
Mindanao	June 2016	2,014	3,871
HHs with electricity increased, in percent	July 2016	89.61	100.00
Energy intensity (primary energy) reduced, in tons of oil equivalent per ₱ million	2016	6.32	5.36
Amount of displaced gasoline increased, in ML (for bioethanol)	2016	524	713
Amount of displaced diesel increased, in ML (for biodiesel)	2016	182	572
Conserved annual amount of electricity and fuel increased, in kilotons oil equivalent	2016	302.64	372.36
SOCIAL INFRASTRUCTURE			
Classroom to pupil ratio improved			
Kindergarten	-	-	1:25
Primary			
Total Number of Primary Schools (2015) = 38,657			
Grades 1-3	-	-	1:30
Grades 4-6	-	-	1:40
Junior High School			
Total Number of Secondary Schools (2015) = 8,082	-	-	1:40
Senior High School	-	-	1:40
Access to health services improved			
Number of Barangay Health Stations established	2016	26,048	42,036
Rural Health Unit/Urban Health Center established	2016	2,626	5,050
Number of socialized housing units provided	2016	332,987	1,522,721
National Housing Authority	2016	326,211	982,441
Socialized Housing Finance Corporation	2016	453	385,977
Home Development Mutual Fund	2016	6,323	154,303
Percentage of barangays with access to Sanitary Land Fills	2016	21.83	29.26
Number of barangays with access to Sanitary Land Fills	2016	9,178	12,299

Strategies

Based on the strategic framework, there are four major strategies for the infrastructure sector: (a) increase spending on public infrastructure; (b) implement strategic infrastructure for the various infrastructure subsectors; (c) ensure asset preservation; and (d) intensify R&D on technologies that are cost-effective over the whole project life-cycle. These strategies are vital towards achieving the overall sectoral objective for the infrastructure sector and the corresponding targets set over the medium-term.

Figure 19.4 Strategic Framework to Accelerate Infrastructure Development



Subsector Outcome 1: Spending on public infrastructure increased

Undertake strategic measures to ensure that the annual public spending on infrastructure will be further increased to at least 5.3 percent of GDP in 2017 and possibly to 7.4 percent of GDP in 2022. To achieve this, strategic measures will be undertaken:

Enhance the linkage of the planning, programming, and budgeting processes of the government. Agencies and other instrumentalities of government will identify priority infrastructure programs/activities/projects (PAPs) that are responsive to the objectives of the Philippine Development Plan (PDP). Appropriate policies will be introduced, including among others, integrated provincial level plans and regulatory reforms.

An investment program based on an optimal mix of government financing, official development assistance, and private capital will be undertaken. The investment program will carefully consider the application of new construction methodologies.

The Three-Year Rolling Infrastructure Program (TRIP) will be adopted to optimize utilization of agency budget allocations for the implementation of priority PAPs. Given a forward-looking infrastructure program, agencies can then undertake preparatory activities, including ensuring the availability of right-of-way, ahead of the project start. This will address the problems of underspending, expenditure realignments and cost overruns.

Encourage private sector participation. Cognizant of the private sector's efficiency and innovativeness, the government will improve its PPP Program as a vehicle for private sector participation in financing where appropriate, the construction, operation and maintenance of infrastructure projects. Government will address the bottlenecks in PPP planning and implementation, and pursue reforms to enhance the business environment that can further encourage private sector participation anchored on promoting transparency and competition.

Formulate and update master plans and roadmaps. Master plans are necessary to ensure that the implementation of programs and projects are harmonized and well-coordinated. This entails providing assistance in financing potential infrastructure investment initiatives under established master plans and roadmaps. Relatedly, infrastructure development plans must be compatible with local land use and development plans to promote synergy and maximize strategic impact among efforts across all levels of government. Appropriate policies, including integrated provincial level plans and regulatory reforms will also be developed and implemented.

Improve government administrative systems and procedures on project implementation. With the intended increase in spending for infrastructure, the capacities of implementing agencies will also be increased with respect to project development and preparation. This will ensure quality-at-entry of proposals at appraisal and approval stage. Government administrative systems and procedures will also be improved, in addition to ensure the timely release of sufficient funds to implement projects.

To ensure the quality of contractors, the guidelines on contractors' performance and compliance with the Contractor's License Law will be strictly enforced. For major infrastructure projects, a round-the-clock work schedule will be implemented.

Subsector Outcome 2: Strategic infrastructure implemented

Transport

The efficiency of the transport sector will be enhanced to sustain economic growth and increase competitiveness by providing adequate, accessible, reliable, and safe access for people and goods across the country, neighboring regions, and the world.

There is a need to enact a National Transport Policy and to create independent regulatory bodies for the railways, airports and seaports, among others, to establish a more streamlined transport sector that is able to efficiently and effectively carry out the identified development strategies.

Roadmaps and evidenced-based studies should guide the rational development of an intermodal transport infrastructure network, taking into consideration compatibility, economic feasibility, comparative advantages, and linkages of desired transportation modes. The consolidation of baseline data and information relative to the national transport network is deemed critical in this plan of action.

With emphasis on improved connectivity and enhanced mobility, multi-modal transport terminals will be established, complete with ancillary facilities to provide smooth transition for passengers and freight from one mode to another. The fare collection systems will be integrated and stored value cards or similar electronic media will be used to ensure maximum convenience for passengers and enable easy transfer between modes.

To ensure that the transport sector is able to support economic development, the physical state of existing infrastructure will be maintained at a level that generates the optimal economic outcomes while the transport network is being expanded to reach the rest of the country and the world. Projects that are implemented, especially those identified as flagship projects, will be closely monitored to ensure the quality and timely delivery of output.

New economic centers as identified in the NSS will be supported with transport infrastructure and services in accordance with land use and urban planning methodologies (e.g., transit-oriented development, township approach, high density residential development) and other sustainable construction technologies that have been proven effective in livable cities. Department of Public Works and Highways (DPWH) Design Guidelines, Criteria and Standards 2015, which incorporates resilient design, will be maximized to address the impact of climate change on all transport infrastructure. Also, the Green Building Code, which will help protect the environment, will be strictly followed by promoting resource use efficiency and environmentally friendly designs/ technologies.

Transport agencies will continue to forge convergence programs with concerned agencies to ensure that economic sectors are provided with adequate transport infrastructure support and services. A convergence program with the industry and trade sector in underdeveloped rural areas will be rolled out. Agricultural areas will continue to be supported through the provision of farm-to-market and farm-to-mill roads, according to the standards set for both design and construction.

To support development in Mindanao, road projects under the Mindanao Logistics Infrastructure Network will be pursued along with the implementation of the Improving National Roads for Inclusive Growth in Mindanao Projects in Western Mindanao. The capacity of the BIMP-EAGA road network will also be increased.

It is important to secure broad-based support for the infrastructure program. There should be general recognition that infrastructure support is a crucial input to achieving the PDP targets, but that there is bound to be some public inconvenience while the project is being implemented. Efficient coordination mechanisms among the different transport agencies and those representing the interests of other economic sectors, as well as stakeholders and the general public, will be put in place. For instance, concerning road projects, there will be greater coordination among DPWH, telecommunications companies, WDs, electric cooperatives or distribution companies on projects, particularly on road widening that requires the transfer of affected utility lines. Such coordination will extend to all LGUs to ensure that local plans and programs are aligned with the national agenda. LGUs and metropolitan agencies will also need to take on more responsibility and accountability for traffic and public transport outcomes.

Access and other support facilities for marginalized sectors (senior citizens, persons with disabilities, women, etc.) will be integrated in the design of transport infrastructure projects.

In the short term, road-based transport will be improved by addressing traffic congestion through "engineering, enforcement, and education"; while in the long-run, the road network will be upgraded and expanded to the highest quality standards.

Appropriate traffic management measures will be enforced and updated to remain responsive to prevailing situations. Traffic engineering solutions, such as the use of intelligent transport systems (e.g., signalized intersections, advanced detection systems, incident detection), will be installed, particularly in urban areas.

The coverage of the high-standard highway operations will extend from 200 km to 300 km radius from the National Capital Region and eventually stretch across Visayas and Mindanao. Inter-island bridges and bridges across smaller bodies of water will form part of the road network when deemed viable. Where necessary and appropriate, bypasses, diversion roads, flyovers, interchanges and underpasses will be constructed (e.g., using tunnel technologies) and existing roads will be improved and widened. Anti-overloading measures including penalties and putting up additional weighbridges and portable weighing devices should be strictly enforced and strengthened to prevent the rapid deterioration of roads. To ensure compliance with international standards on vehicle safety and environmental impact, the Motor Vehicle Type Approval System and Motor Vehicle Inspection System will be implemented.

For a more efficient use of road infrastructure, the movement of people and goods will be prioritized over private vehicles. High quality public transport modes will be pursued so that commuters will prefer public over private vehicles. Non-motorized transport (e.g., bicycle and pedestrian infrastructure) will be improved and expanded to increase mobility, accessibility and safety and to encourage more walking and cycling trips.

Road-based transport initiatives, such as travel demand management, public transport reform and fleet modernization, route rationalization, environmentally sustainable urban transport systems, and bus rapid transit will be implemented, ensuring interconnectivity among different modes and landuses.

To highlight that mobility is a basic need requiring service and quality standards, a commuters' charter or bill of rights will be developed.

The desired shift from private to public transport, with emphasis on mass transport, will be encouraged by ensuring the accessibility, availability, affordability, adequacy, convenience, and reliability of rail transport and bus rapid transit (BRT) systems. The rail network will be expanded by developing new lines in the major island regions. Development planning for the rail sector will take into consideration the plans for road-based transport infrastructure, especially in cases where projects will utilize the same right-of-way. Consistent with the objective of moving more people and cargo rather than vehicles, priority on the right-of-way will be accorded to rail-based transport over road-based transport.

To address the concern and to avoid future problems of connectivity and interoperability of railway systems, common rail standards, such as the policy of using standard gauge (1,435 mm) for projects in the pipeline and for all rail projects, will be implemented.

The policies and guidelines on the procurement activities in the railway sector will be customized to ensure the availability of highly-specialized spare parts and supplies.

The government will exhaust all possible means to improve the operational efficiency of airports and to address constraints to optimal capacity utilization. In particular, strategies will focus on decongesting air traffic serving the greater capital region, such as building a new international airport, guided by an optimal airport strategy. . In the interim, movements in both the land and air facilities at the Ninoy Aquino International Airport will be optimized (e.g., by transferring general aviation to other airports and constructing a rapid exit taxiway). Development plans for CRK will be fast tracked including the establishment of a fast and direct access to Manila (e.g., rail system providing non-stop and commuter services).

To serve the increasing passenger demand, the ongoing and planned improvements of regional airports will be fast tracked. Regional airports will be installed with night landing capabilities to help diffuse air traffic over a longer period of the day.

To improve the efficiency of airports, procedural measures which involve airspace management and adopting collaborative decision making among the air traffic control, airlines, and ground handlers will be implemented. Runway capacity will be optimized by cutting aircrafts' occupancy times. Available airspace will be maximized by reducing restrictions and making procedural improvements to tighten intervals between aircraft movements. Unimpeded traffic flow of passengers and freight will be ensured through adequate and conducive access to all airports. All these will be undertaken through the procurement of the state-of-the-art technology and services such as ground radar movement and collaborative decision making software.

Port facilities will be improved to ensure that inter-island shipping, including a stronger RORO network, will remain a viable option for transporting people and cargo. Breakwater facilities will be developed for wave protection and to prevent ports from deteriorating. International standards will be followed in the expansion of port facilities. In addition, navigation channels to accommodate larger vessels will be developed to ensure the sustainability and efficiency of ports. These approaches will yield economic gains through lower transport cost, increased lifespan of products, and more profits and job opportunities, especially for fishing communities.

The government commits to optimize the utilization of existing ports. A more direct connection between Manila and Batangas ports will be explored and co-loading (modified cabotage) will be implemented to encourage shipment between domestic ports. Existing dry ports will be improved and new ones will be built to provide support to manufacturers, importers, and exporters. These will be done by reducing vehicle turnaround time, thus, accelerating trade movement. Logistics hubs will be developed where applicable to connect industrial and manufacturing zones as well as agro-industrial areas, to the major port areas.

Further, the BIMP-EAGA Transit Transport Route in Mindanao will be improved in terms of capacity to facilitate swift intra-EAGA transport.

Safety and security of the public transport system will be improved by adopting a security structure that is universally accepted to eradicate activities that may cause injury, death, loss, or damage to property. To this end, an independent body that will investigate transport accidents and provide transport safety recommendations will be created. In the interim, the Office of Transportation Security will continue to ensure public safety through inspections and evaluation of security plans of public transport terminals while concerned agencies will ensure that projects are designed with appropriate safety standards. Procurement and installation of advanced security systems for land-based terminals, airports and seaports will be pursued.

PCG, on the other hand, will continue to pursue its capability building programs to ensure presence and control over the country's vast maritime domain. New floating and air assets will be procured and a sufficient well-trained personnel complement will be provided. To serve the growing tourism and maritime industry, new bases or stations will be developed in strategic locations.

Water Resources

The primary strategy for the water resources sector is to address its fragmented structure through the creation of an apex body and the formulation of masterplans that will foster coordinated efforts across the country. Such apex body will institutionalize a science-based river basin approach that integrates the principles of integrated water resource management.

The National Water Resources Board and the National Economic and Development Authority (NEDA) will strengthen coordination and linkages with partner institutions (i.e., LGUs, national government agencies, government-owned and controlled corporations, nongovernment organizations, private investors, and academe) in all aspects across the different subsectors toward achieving adequate access and sustainable water resources management. The government will enhance the capacities of concerned entities in developing and managing water-related projects. Local or regional agents will be deputized and capacitated to expedite the processing of water permits. Existing laws and regulations on water resources will be reviewed and strengthened.

Surface water source development for water-critical areas will be prioritized. Groundwater recharge system in the development of the surface water source for critical areas will be incorporated wherever possible in accordance with prescribed standards. Use of eco-efficient water infrastructure to address water demand and supply mismatch will continue to be promoted. Measures to promote efficient water utilization will be explored.

Institutional reforms will be pursued to encourage and guide investments in WSSS. The creation of an independent economic regulatory body for the WSSS subsector will be pursued for a more transparent and consistent regulation. A unified financing framework with a definite scope and streamlined process will be established to consolidate and make more accessible all available financial resources to support the WSSS projects of all water service providers. Further, a WSSS master plan will be prepared to guide the concerned implementing agencies to attain universal access in the sector. To improve the response from LGUs and WDs, plans to broaden the scope of the NSSMP[35] will be supported. The government will assist WDs in expanding the coverage of reliable water service at affordable rates and reducing NRW while ensuring economically-viable operations.

To ensure water security in water-critical areas and in Metro Manila, new water sources will be developed, watersheds critical to existing and potential water sources will be protected, technologies in water supply will be explored, and sewerage and sanitation infrastructure[36] will be expanded. For Metro Manila, Angat Dam and all its accessory structures will be maximized and maintained.

An irrigation master plan to set the direction for irrigation development and a framework for capital and O&M financing of irrigation projects will be formulated. The overall plan and framework will aim to: (a) institutionalize a policy providing government subsidy for capital investment and O&M of irrigation facilities; (b) strengthen the capacity of personnel; (c) strengthen the implementation of the Irrigation Management Transfer Program; (d) review and rationalize irrigation service fees; (e) establish and rehabilitate small-scale and community-based irrigation projects in areas not served by national irrigation systems (f) prioritize small over large irrigation projects and rehabilitation over construction of facilities; and (g) conduct complete technical work and site validation in the project planning stage to eliminate the causes of delays in project implementation.

Flood management initiatives will continue to be undertaken. These include: (a) upgrading of engineering standards for the design and O&M of flood control works; (b) establishment of a database on river information and updating of baseline data on delineation of flood-prone areas; (c) completion and updating of flood control and drainage master plans and development plans for the 18 major river basins and other critical principal river basins, and (d) strengthening of the flood management capabilities of and coordination among concerned agencies (e.g., DPWH, LGUs).

Energy

The government will support the required massive investments and fast track the implementation of infrastructure projects to improve power generation. In particular, it will:

a. Accelerate and streamline the business processes for energy projects
b. Revisit roles, particularly of government, in the power industry
c. Expedite the implementation of remaining policy mechanisms under the Renewable Energy Act of 2008 (e.g., renewable energy market, renewable portfolio standards) to further encourage development
d. Declare energy projects as projects of national significance to expedite the timely completion of energy projects

35 For example, to include septage projects, expand eligibility to less urbanized cities and municipalities, and allow WDs to directly apply for the grant.

36 For example, detention ponds for control of discharges

e. Strictly monitor compliance to the DOE Department Circular DC2015-07-014, "Guidelines for Maintaining the Share of Renewable Energy in the Country" and Department Circular DC2015-03-0001, "Promulgating the Framework for the Implementation of Must Dispatch and Priority Dispatch of Renewable Energy Resources in the WESM" to address the intermittence of renewable energy
f. Harmonize the transmission development plan with renewable energy targets, and address potential grid reliability concerns with the scaling of variable renewable energy resources
g. Support smart grid development
h. Conduct technical audit of power plants in collaboration with professional engineering associations
i. Establish the commercial operations of the WESM in Mindanao

An optimal energy mix will be studied based on appropriate allocation of capacities (i.e., baseload, intermediate, peaking) and technologies (i.e., renewable energy, nuclear, coal, oil, gas, etc.). The study will propose a fuel mix policy for power generation that takes into consideration the resulting electricity cost, externalities, and technical limitations. Said optimal mix is expected to address the challenge of securing greater system stability and security of supply to meet power systems demand, as well as to increase the country's system reserve requirement to 25 percent of peak demand (from the current 17 percent).

Competition will be encouraged to drive down electricity costs. Thus, the government will:

a. Accelerate the evaluation of retail electricity supplier license application to broaden the list of suppliers in the market
b. Accelerate the privatization of the power plant assets of the Power Sector Assets and Liabilities Management Corporation, which include the contracted capacity of generating plants and independent power producer plants
c. Strictly monitor compliance to or refinement of the following resolutions of the Energy Regulatory Commission:
   - Resolution No. 17, s. 2013 adopting and approving the rules and procedures to govern the monitoring of reliability performance of generating units and the transmission system
   - Resolution No. 20, s. 2014 adopting and establishing a pre-emptive mitigation measure in the WESM
   - Resolution No. 04, s. 2015 adopting the procedure in the reporting by generation companies of outage events affecting their generating facilities

Table 19.5 Committed and Indicative Capacity per Grid, as of July 2016

GRID	INSTALLED CAPACITY* (MW)	COMMITTED PROJECTS 2016-2020 (MW)	INDICATIVE PROJECTS 2016-2020 (MW)
Luzon	14,348.00	3,883.40	9,668.60
Visayas	2,965.00	606.60	2,590.30
Mindanao	2,742.00	1,687.90	2,566.80
Philippines	**20,055.00**	**6,177.90**	**14,825.70**

** Capacity mix as of June 30, 2016 sourced from DOE*
** Based on committed and indicative projects as of July 2016*

- Joint Resolution No. 03, s. 2015 setting the offer price cap and offer floor price in the WESM

d. Rationalize charges and taxes for electricity consumption

The government will also explore the expanded utilization of the Malampaya funds to cover universal charges for stranded contract cost and stranded debts, rehabilitation of government energy infrastructure, aside from financing the energy resource development programs and projects of the government.

The government will pursue the development of the natural gas industry. The creation of an enabling legal and regulatory framework for the natural gas industry will be prioritized to set the directions for the formulation of a natural gas development plan to guide investments in the sector. In pursuit of the APG and TAGP, the 121 km Batangas-to-Manila gas pipeline project is proposed to be the first natural gas pipeline in the country. It is expected to supply natural gas to targeted market areas situated in the high growth areas of Batangas, Laguna, Cavite, and Metro Manila. Moreover, liquefied natural gas terminals will be constructed in Quezon, Batangas, and Bataan. New oil and gas fields to replace the depleting Malampaya natural gas reservoir will be explored.

The government will ensure that the needed transmission facilities are implemented on time to efficiently transmit electricity to various load centers and interconnect the entire grid. For Luzon, the transmission network will be improved to support power generation capacity additions in the Quezon, Bataan, and Zambales areas. They will complement the establishment of a transmission loop with additional drawdown substations within Metro Manila. Furthermore, the power grid in the island of Mindoro will be interconnected to the Luzon grid through Batangas. For Visayas, the three-stage implementation of transmission backbone from Cebu to Panay Island will ensure full dispatch of both conventional and renewable energy-based power plants. In addition, the interconnection of the Cebu-Bohol grids will increase the transmission capacity as well as improve the reliability of supply to Bohol Island. For Mindanao, the 230 kilovolt Mindanao backbone from Lanao del Sur in the north to Davao del Sur in the south will be fasttracked. The Visayas-Mindanao interconnection will be prioritized to increase the reliability of the Mindanao power systems and harness and enable capacity sharing of reserves and exchange or delivery of energy during periods of shortfall or surplus in power supply between grids.

The government will prioritize the provision of electricity services to the remaining unelectrified off-grid, island, remote, and last-mile communities to achieve total household electrification by 2022. To achieve universal access to electricity, the government will endeavor to:

a. Ensure the appropriateness, feasibility, and sustainability of projects involving new or emerging technologies for missionary electrification
b. Tap electric cooperative regional technical evaluators to complement the manpower of the National Electrification Administration (NEA) in facilitating the evaluation of electrification projects
c. Provide technical and financial support to NEA and electric cooperatives in total electrification

To reduce electricity rates, the government will:

a. Strengthen the competitive selection process in securing bilateral power supply contracts
b. Remove VAT on system loss charges

c. Revisit the rules and regulations on cross-ownership between retail electricity suppliers and generation companies or distribution utilities to foster transparency and promote fair competition in the implementation of the retail competition and open access
d. Restudy Section 43(f) of Republic Act 9136 (Electric Power Industry Reform Act) on the pricing methodology
e. Encourage renewable energy development in missionary areas to shift away from expensive diesel fuel and reduce universal charge for missionary electrification
f. Foster a more conducive business and regulatory environment to allow the entry of more power generation investors
g. Revisit government's role in the sector, particularly in the provision of reserves

To improve energy efficiency, the government will continue the implementation of the EEC program that is aimed to support economic growth and environment protection. To achieve this, the government needs to do the following:

a. Push for the enactment of the EEC bill to promote demand-side management and incentivize energy efficiency projects
b. Impose minimum energy performance standards for energy-intensive industries and energy-consuming products
c. Implement policy allowing government agencies to engage the services of ESCOsxx
d. Implement the 2016-2020 EEC Action Plan and the Alternative Fuels Roadmap to provide incentives for the implementation of energy efficiency projects

The mandated biofuels blending will be reviewed with due consideration to the impact on prices, farmer incomes and environmental protection. Several undertakings under the Alternative Fuels Program, (such as the Auto-LPG Program and the Natural Gas Vehicle Program for Public Transport), will also be continued.

ICT Infrastructure

With the stronger recognition of ICT as a vital tool for nation-building and good governance, the government will ensure that the country's ICT infrastructure and services are available, accessible, reliable, trusted and affordable. The government will be guided by the following priority strategies:

Expand the deployment of ICT infrastructure and address the gaps in digital connectivity. To create economic opportunities, the government will facilitate the faster and strategic roll-out of ICT infrastructure in order to meet the growing demand for structures and services, particularly in underserved areas. Specifically, it will:

a. Work with the LGUs to streamline and harmonize government requirements and processes on permits, clearances, and fees issuances. This will be done by establishing a one-stop shop offline and online facilities that will encourage infrastructure investments and facilitate faster roll-out.
b. Facilitate and encourage infrastructure sharing and co-use by leveraging existing government infrastructure assets and forging partnerships with utility operators, and hence, potentially reducing associated costs in infrastructure deployment
c. Ensure the efficient utilization and management of the radio frequency spectrum to support the growth of various wireless ICT applications and services

d. Leverage the use of emerging technologies capable of establishing connection to the countryside and isolated islands

e. Explore the feasibility of creating a universal access fund (UAF), which may be used for the development of ICT infrastructure in the unserved/ underserved areas
f. Formulate necessary master plans, such as the DTTB migration plan, national broadband plan, national cybersecurity plan, and other successor ICT master plans to provide the overall policy direction and guide all infrastructure roll-out and development interventions.

Continue to enhance the country's e-government system as a vital tool for good governance. The government will harmonize and coordinate all ICT initiatives to optimize all government ICT resources, encourage information and resource-sharing and database-building, and ensure the development and protection of an integrated government ICT infrastructure and networks.

Institute reforms in the policy and regulatory frameworks. With the rapid advancements and convergence of technologies, the government will pursue significant reforms in the existing policy and regulatory frameworks, including strengthening the roles of DICT and the National Telecommunications Commission (NTC) in upholding competition in the ICT market, and promoting the innovative use of ICT, such as in education and human capital development.

Social Infrastructure

The effective implementation of social infrastructure projects provides conducive access to basic social services necessary for human capital development.

Address the existing infrastructure deficit in the education sector to make the classroom environment more conducive to learning. The Basic Education Facilities Funds (BEFF) will be expanded, especially in areas where they are most needed. School buildings will be provided with complementary facilities such as power, ICT, water and sanitation facilities.

An open and comprehensive database of education infrastructure statistics will be developed and updated regularly by DepEd to aid in monitoring and evaluation activities. This will enhance planning, programming, and budgeting for basic educational facilities.

The reconstituted Joint DepEd-DPWH Technical Working Group on Basic Education Facilities will target the prompt construction of school buildings, starting with 47,492 new classrooms in 2017.

Existing plans and programs on the implementation of health facilities (e.g., Philippine Hospital Development Plan, Health Facilities Enhancement Program [HFEP]) will be expanded in the Philippine Health Facility Development Plan (PHFDP) to ensure the continued provision of health services, which would include the following, among others:

a. Upgrade and expand DOH hospitals and medical centers, provincial, district and municipal hospitals, and other national government agency hospitals and health facilities
b. Upgrade, expand, and construct rural health units, barangay health units, blood service facilities, psychiatric facilities, reference laboratories, quarantine stations
c. Construct emerging and re-emerging disease reference centers, vaccine production facilities, biosafety laboratories
d. Expand and construct treatment and rehabilitation centers
e. Upgrade and expand sanitaria facilities

The PHFDP will give LGUs the primary responsibility of identifying lands best suited for the construction and expansion of health facilities. Further, policy reforms that will allow income retention of health facilities for the operation and maintenance of all government health facilities will be pursued.

Secure tenure in affordable, safe and disaster-resilient housing will be provided to underprivileged and homeless families. The following strategies will be pursued by the Housing and Urban Development Coordinating Council (HUDCC), together with KSAs and LGUs, to ensure the timely provision of decent shelter to the underserved:

a. Strengthen sectoral governance. The creation of a strong and well-resourced Department of Housing and Urban Development that will rationalize the structure and functions of each housing and urban development agencies will be pursued.
b. Reduce processing time to improve rate of housing construction. To hasten the issuance of necessary permits, certifications, and licenses on housing and land development, the processing time across the KSAs and other concerned agencies will be reduced.
c. Promotion of housing and building technology. Innovative, cost-efficient and indigenous technology (e.g., pre-fabricated housing components, concrete interlocking blocks) shall be promoted to fasttrack housing construction and reduce cost. Current innovations in green technology will be considered in the structural design of housing units.
d. Enhance the coordination for the implementation of infrastructure programs and projects. For faster implementation of infrastructure projects, coordination among infrastructure implementing agencies and KSAs will be enhanced, where HUDCC and KSAs are informed of the need for relocation sites for affected ISFs even at the planning stage of the proposed infrastructure projects. A national resettlement policy framework will be adopted to serve as basis of resettlement action plans for proposed infrastructure projects. In addition, HUDCC will be consulted as regards the completeness of resettlement action plans before submitting a project for NEDA Board approval.
e. Prioritize on-site and in-city relocation. To emphasize the principle of maximum retention and minimum dislocation of beneficiaries who will be permitted access to opportunities and services (e.g., livelihood, schools, hospitals, etc.), off-city relocation will be considered as a last resort when moving ISFs living in danger areas or those affected by infrastructure projects. To this end, high-density mass housing and vertical developments for socialized housing will be promoted.
f. Provide for the needs of the vulnerable. Cultural aspects, gender-responsiveness, and accessibility will be considered when providing housing for different groups. Furthermore, housing designs will be gender-responsive, elderly- and persons with disability-friendly.

LGUs will be provided assistance in complying with the requirements under the ESWMA. There will also be public awareness programs to promote proper waste management; investments in relevant technologies will be undertaken to improve solid waste management throughout the country. The DENR-Environmental Management Bureau, in coordination with National Solid Waste Management Commission and relevant stakeholders, will implement strategies in support of RA 9003.

a. Promote clustering of LGUs for Common SWM facilities and services to take advantage of economies of scale
b. Revisit the provisions of RA 9003, and make necessary amendments, for the creation of SWM units and appointment of environment and natural resource persons in each LGU

c. Fully utilize the national ecology centers and regional ecology centers as possible venues for trainings or education in integrated SWM
d. Provide an incentive mechanism to local recycling industries to encourage their continued participation in the local SWM system
e. Adopt alternative technologies, including waste-to-energy, as SWM solution, considering institutional, legal, and technical limits
f. Intensify the promotion of segregation-at-source by engaging local communities to participate in "learning by doing" programs, information and education campaigns and social marketing programs on SWM
g. Operationalize SWM fund and assess the reinstitutionalization of the NG-LGU cost sharing scheme for SWM

Enhance the capacities of relevant agencies in order to better monitor and manage health care and hazardous wastes. To address the challenges in the health care sector, the following will be pursued:

a. Establish a database of health care and hazardous waste facilities
b. Promote information exchange on available low-cost technologies for health care and hazardous waste management
c. Expand and accelerate assessment of chemical risks
d. Harmonize and improve labelling of chemicals
e. Strengthen national capabilities and capacities for management of toxic chemicals and substances
f. Strengthen the capacity to prevent illegal entry of toxic and dangerous products

Improve the deteriorating living conditions of inmates by addressing overcrowding in prison and jail facilities as well as the insufficient provision of basic services (e.g., potable water and proper sanitation facilities). Toward this end, the government will endeavor to undertake the following:

a. Construct new prison facilities in underserved regions to decongest prison population in existing facilities
b. Reduce congestion by the upgrading, expanding, and building of district, city and municipal jails and female dormitories
c. Improve living conditions for detainees and prisoners by providing basic infrastructure services such as: adequate and clean water supply; hygienic sanitation facilities; and, hospital or infirmaries on prison grounds.

Subsector Outcome 3: Asset preservation ensured

Infrastructure investment, sustainability, safety, and resilience are components of an integrated response to the improved performance of the infrastructure sector. The government will continue to strengthen its role in coordinating infrastructure management and place greater emphasis on sustainability, safety, and resilience. In particular, this plan highlights a range of specific measures that the government will undertake to achieve better outcomes:

Increase technical and financial capabilities for operations. Improved infrastructure relies on having effective public policies, institutions, and legislation. Within the objective of improved governance and strengthening of finances of authorities, the government will: strengthen the technical, management and financial capabilities of government agencies; rationalize national and local level planning; and improve accounting, compliance mechanisms, and reporting systems.

To maintain the emphasis on technical, management, and financial capacity building as an integral part of development

assistance projects, government will strengthen regulatory oversight and personnel capacities in various departments for infrastructure planning, management, and operation. Value engineering and value analysis principles at various stages of project development will be mainstreamed to optimize the use of funds allocated for infrastructure development. To further reduce the occurrence of cost overruns, the government will formulate, use and mainstream technical manuals or guides, such as the DPWH Standard Cost Estimation Manuals in estimating project cost. Also, a Philippine Railway Institute will be established to serve as the country's center for skills training, safety management, certification or licensing, and technology innovation.

To further develop regional areas, the national government will spearhead efforts to improve the allocation of infrastructure budget and the spatial location of infrastructure projects. Various infrastructure information databases will be developed to aid government entities in formulating, updating, and implementing infrastructure plans and programs.

Incorporate climate change adaptation and disaster resilience measures. Considering that the Philippines is highly vulnerable to disasters and effects of climate variability, the operational life of infrastructure will be secured. Disaster risk reduction and climate change adaptation strategies will be considered to ensure resilient infrastructure facilities. For instance, disaster-resilient safety network of feeder ports that will safeguard secured and smooth logistics in times of disaster will be established on top of its rehabilitation and improvement. Moreover, the government will formulate and implement a national master plan for flood and drainage, which will outline concrete projects for the different flood-prone and affected areas in the country.

Ensure the security of infrastructure facilities. In response to risks that threaten essential infrastructure services, the government will enhance the security of the country's infrastructure through proactive and coordinated efforts among government agencies. For instance, global navigation satellite system technologies, e.g., global positioning system, will be promoted and adopted in achieving seamless and green inter-modal transportation. These will enhance safety, security, and sustainability; improve supply chain connectivity; and strengthen capabilities for disaster-preparedness and emergency response. xx

Sector Outcome 4: Intensify infrastructure-related research and development (R&D) intensified

To improve the infrastructure sector, it is imperative that R&D expertise is institutionalize. The government will pursue programs to develop R&D on, among others, renewable energy and technologies to meet the growing need for clean and affordable energy; cost-efficient technologies for wastewater and solid, hazardous, and health care wastes management for the protection of public health and the environment; new transportation technologies; climate change- and disaster resilient infrastructure designs; emerging ICT applications or platforms; and new methodologies for gathering and managing science-based data. In addition, establishment of R&D facilities will be supported.

Legislative Agenda

The following set of priority legislative and policy interventions are deemed critical in realigning substantial impact on the overall performance of the infrastructure sector, such as, among others, improvements in the existing institutional and implementation capacities of the various agencies involved in infrastructure development planning and policy formulation.

Table 19.6 Legislative Agenda to Accelerate Infrastructure Development

PROPOSED LEGISLATION	PURPOSE
Cross-cutting	
Amendments to the Build-Operate-Transfer Law and its IRR	Introduce reforms to address bottlenecks in PPP project implementation, further encourage private sector participation, and keep the policies attuned to the changing business environment.
Transport	
Enactment of a National Transport Policy	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. This policy will provide the parameters for planning at the agency level, e.g., the formulation of the "Philippine Transport System Master Plan".
Enactment of a Law Creating Independent Regulatory Bodies for Railway and Maritime Transport Sectors	Addresses the weak and fragmented institutional setup of concerned transport agencies by creating respective independent regulatory bodies for the railway sector and maritime transport sector, consistent with the National Transport Policy. The existing dual roles of some agencies acting as both operator and regulator of transport facilities will be effectively eliminated.
Enactment of a Law Creating an Independent Body for Transport Safety and Security	Places 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.
Water Resources	
Enactment of a Law Creating an Apex Body for the Water Resources Sub-sector	Aims to address the weak and fragmented institutional set-up of the water resources sub-sector with the creation of an Apex Body that will act as the single lead agency to oversee/coordinate overall policy and project/program implementation.

PROPOSED LEGISLATION	PURPOSE
Enactment of a Law Creating an Independent Economic or Financial Regulator for Water Supply and Sanitation	Harmonizes the regulatory practices, processes, fees and standards on water supply and sanitation while addressing the overlapping functions or jurisdictions of existing regulatory entities.
Energy	
Amendments to RA 9136, the Electric Power Industry Reform Act	Aims to improve the implementation of the law's provisions and enhance its effectiveness to address high cost of electricity, alleged market collusion, and insufficient power supply.
Enactment of an Enabling Law for the Natural Gas Industry	Provides an enabling legal and regulatory framework for the natural gas industry to guide investments in the sector.
Enactment of a Law Declaring Energy Projects as Projects of National Significance	Expedites the timely completion of energy projects to help cushion the impact of high power rates
Enactment of a Law on Energy Efficiency and Conservation	Promotes demand-side management and incentivizes energy efficiency projects.
Enactment of an Enabling Law to Utilize Malampaya Funds, otherwise known as the Energy Resource Funds	Provides an enabling legal and regulatory framework to expand the utilization of Malampaya funds to cover universal charges for stranded contract cost/ stranded debt, and rehabilitation of government energy infrastructure.
ICT Infrastructure	
Amendments to the Public Telecommunications Policy Act of the Philippines	Makes the law more responsive to technology advancements and changes in the market landscape, considering convergence of technologies; and also strengthens the roles of DICT and NTC in fostering and upholding competition in the market.
Social Infrastructure	
Amendments to RA 9003, the Ecological Solid Waste Management Act	Addresses the weak administrative, organizational and institutional dynamics of LGUs in implementing SWM programs or projects. The proposed amendments may include, among others, the mandatory creation of a local Environment and Natural Resources offices and identification of dedicated focal SWM units with corresponding organization structure, powers and functions.

20 Ensuring Ecological Integrity, Clean and Healthy Environment

Chapter 20

Ensuring Ecological Integrity, Clean and Healthy Environment

The environment and natural resources (ENR) sector plays a critical role in the country's development. It provides the following ecosystem services: (a) *provisioning* (e.g., food, raw materials, freshwater); (b) *regulating* (e.g., local climate and air quality, carbon sequestration and storage, erosion prevention); (c) *supporting* (e.g., habitats for species, maintenance of genetic diversity); and (d) *cultural* (e.g., recreation, tourism). These ecosystem services support the growth and performance of other sectors, including agriculture, fisheries, industry and services, and provide livelihood, especially to resource dependent communities.

Provision of these indispensable services, including the maintenance of a healthy and good quality environment, has been increasingly compromised due to mismanagement, misuse, and overexploitation of the country's ENR. It is critical that environmental health is improved and integrity ensured to support the accelerated economic growth that the administration aims to achieve, strengthen resilience against the impact of climate change (CC) and disasters (natural and human induced),and improve the welfare of the poor and marginalized members of society.

The Philippine Development Plan (PDP) 2017-2022 includes more aggressive strategies to rehabilitate and restore degraded natural resources, and protect the fragile ecosystems while improving the welfare of resource-dependent communities.

Assessment and Challenges

The country's rank in environmental management performance dropped between 2006 and 2014 but improved from thereon. Over the past decade, the country's Environmental Performance Index (EPI) ranking[2] dropped from 55th in 2006 to 114th in 2014, but recovered to rank 66 out of 180 countries in 2016 (*Figure 20.1*). The Philippines' performance is poorer compared with Singapore and Malaysia but is consistently much better than Indonesia and Vietnam.

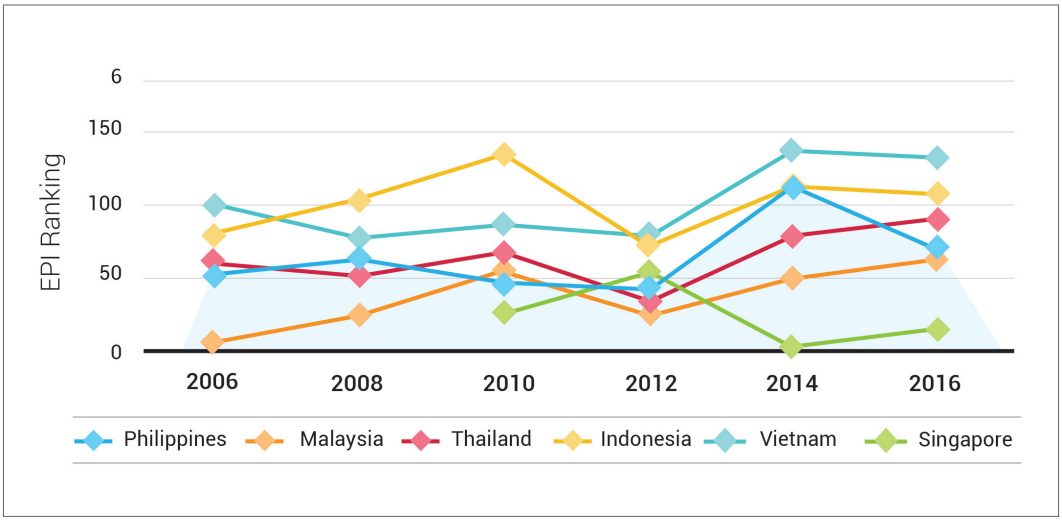
Management of natural resources has been improving. Several improvements were noted in the management of the country's ENR, particularly in the reduction of open and denuded forest lands in the

[1] Environmental, geological, human-induced and hydro-meteorological hazards

[2] The EPI is a global metrics for the environment which ranks countries' performance on high-priority environmental issues related to health impact, air quality, water and sanitation, water resources, agriculture, forests, fisheries, biodiversity and habitat, and climate and energy.

country as well as the effective management of key terrestrial and marine protected areas. This resulted in the improvement of critical habitats thereby arresting the extinction of threatened flora and fauna. These accomplishments were facilitated by the implementation of key environmental laws and policies such as: (a) Executive Order No. 23 on the Moratorium on Logging in Natural Forest and Executive Order No. 26 on the Implementation of the National Greening Program; (b) National Integrated Protected Area System Act; (c) Wildlife Resources Conservation and Protection Act; (d) Amended Fisheries Code; and (e) other governance modality in establishing conservation areas such as the local conservation areas and Indigenous Community Conserved Areas.

Figure 20.1 Environmental Performance Index Ranking of ASEAN-6 (2006-2016)



Source: 2016 Environmental Performance Index, A. Hsu et al, 2016, Yale University

Progress was also noted in the issuance of patents and certificates of land ownership. In fact, of the 14.1 million hectares (ha) of alienable and disposable lands, only around 400,000 ha remain untitled. The issuance of land titles and residential patents incentivizes the beneficiaries to make their land more productive so that it can generate higher income.

On mining rehabilitation, only four mine sites remain abandoned, thus requiring government intervention to prevent further damage to the environment and nearby communities.

Slight improvements in environmental quality have been noted but monitoring of environmental compliance remains weak. National ambient air quality for particulate matter measuring 10 micrometers in diameter or smaller (PM_{10}) has improved over the last five years, from 76 micrograms per normal cubic meter (µg/Ncm) in 2011 to 46 µg/Ncm in 2015. This is due to more effective management of air quality in strategic areas in the country, including close monitoring of industries and stricter implementation of anti-smoke belching campaign. However, pollutant sources continue to increase, in particular, the rapidly growing number of privately owned vehicles (44% increase from 2006 to 2015), which remains the largest contributor of emissions in the country.

In terms of water quality, many of the classified water bodies are now unfit for

their intended uses (e.g. public water supply, food production, and recreation) due to rapid population growth and expansion of residential and industrial areas. Untreated domestic wastewater discharges (33%), agriculture and livestock (29%), industrial sources (27%) and non-point sources such as agricultural farms (11%) constituted the sources of water pollution. In fact, only about five percent of households are connected to sewerage network and treatment facilities.

The waste management problem has persisted despite 38 percent compliance of local government units (LGU)[3] with the provisions of the Ecological Solid Waste Management Act or RA 9003 *(see also Chapter 19)*. The greater majority have yet to comply and the reason cited is the lack of funds among LGUs to put up the infrastructure facilities required by RA 9003. In addition, only few households practice 3Rs (reduce, reuse, and recycle) in waste management.

Efforts on disaster risk reduction (DRR) and climate change adaptation (CCA) remain inadequate. Measures that help prevent and mitigate the impact of disasters and prepare for these events have come in various forms, including: (a) mainstreaming CCA and DRR into policies, plans, programs and budget; (b) risk and vulnerability analysis and assessments, including the development of multi-hazard maps; (c) strengthening institutional and financial mechanisms; (d) improving early warning systems; and (e) continuing information, education and communication (IEC) campaigns. However, not all LGUs have mainstreamed CCA and DRR measures in their comprehensive land use and development plans (CLUP and CDP) due to: (a) lack of capacity to use the available geospatial information; (b) unavailability of appropriately-scaled probabilistic multi-hazard maps; and (c) coarse spatial resolutions of available maps. Moreover, available funds are used primarily for relief and recovery activities and not for adaptation and mitigation measures. There is also a lack of IEC campaigns to increase adaptive capacity of communities, especially vulnerable groups (i.e., women, children, older persons, indigenous peoples, and persons with disabilities).

The existing protocols for relief and rehabilitation are not appropriate for long-gestating events such as El Niño. For instance, the quick response fund is intended for repair of infrastructure damaged due to a calamity, but El Niño does not result in damage in infrastructure but rather, loss of livelihood.

The socio-economic and environmental landscape is changing. Between 2017 and 2022 there will be additional 8.3 million Filipinos. In fact, Metro Manila will remain as the densest region, further exceeding the national population density average. More people translate to higher demand for food and houses that can put more pressure on ENR. Increasing concentration of people in urban areas will also likely increase demand for food, social services, infrastructure and transport facilities, electricity and power, and other basic needs, all of which could exacerbate air and water pollution and generate more waste. Together with the proliferation of inefficient industries, this could hasten the conversion of prime lands in urban fringes, and increase greenhouse gas (GHG) emissions, thus further aggravating the impact of CC.

Impact of climate extremes and variability are felt with increased intensity and frequency. With CC, Philippines is already experiencing increased intensity and frequency of extreme weather events. Adapting to CC, which now defines the new normal, and mitigating its impact, is a big challenge and efforts have to be heightened to a level that would safeguard not only lives but also economic gains. Transitioning to

[3] as of December 2016

a low carbon pathway by adhering to the principle of common but differentiated responsibilities to address CC adds to the challenge.

ENR laws are weakly enforced. There are sufficient rules and regulations in the country that compel the protection, proper management, and sustainable use of resources. Their implementation and enforcement, however, are constrained by weak and fragmented institutional arrangements. For instance, while Laguna Lake Development Authority is responsible for the protection and development of Laguna Lake, regulation of other sources of pollutants such as household and industrial wastes fall under the mandate of LGUs or other agencies.

There is a lack of sustainable financing and limited access to available funding facilities. Funding for ENR management including CC and disaster risk reduction and management (DRRM) initiatives largely depends on public finance. Especially in local government units, funding for ENR, CC, and DRRM competes with other development priorities. This has limited the initiatives for environmental management, CCA and DRRM. Moreover, stakeholders have difficulty accessing available funds, such as the People's Survival Fund, debt-for-nature swap, and risk transfer mechanisms due to: (a) lack of information about the financing facility; (b) tedious fund disbursement procedure; (c) weak institutional preparedness to meet requirements; (d) limited institutional capacity to prepare acceptable and bankable technical proposals; (e) inability to utilize science-based information; and (f) affordability of insurance products particularly for low income LGUs and farmers.

Private sector engagement is limited in ENR management, including investment in CC and DRRM actions. The potential of private sector investing in ENR management, including risk transfer mechanisms, remains largely untapped due to the lack of a clear mechanism to guide the private sector in complementing government efforts. For instance, the private sector can provide support in product development and improving the export potential of forest (timber and non-timber) and marine-based products by investing in processing technology that will add value to the product. This policy gap has undermined the sector's potential to significantly contribute to employment creation, poverty reduction, and climate change adaptation and mitigation (CCAM) and DRRM.

Strategic Framework

Ensuring ecological integrity and a clean and healthy environment is an important foundation supporting the three main pillars of the PDP: enhancing the social fabric, reducing inequality, and increasing potential growth. The key outcome under this chapter is to ensure ecological integrity and improve the socio-economic conditions of resource-based communities through sustainable integrated area development.

Targets

Table 20.1 presents the medium-term targets corresponding to each of the major outcomes under this chapter. To sustain biodiversity and functioning of ecosystem services, the forest cover will be increased and the quality of coastal and marine habitats will be improved. Improved environmental quality will be assessed using quality standards for air, water and soil, among others. For increased adaptive capacity and resilience of the ecosystem, a resilience index will be developed using existing technical studies.

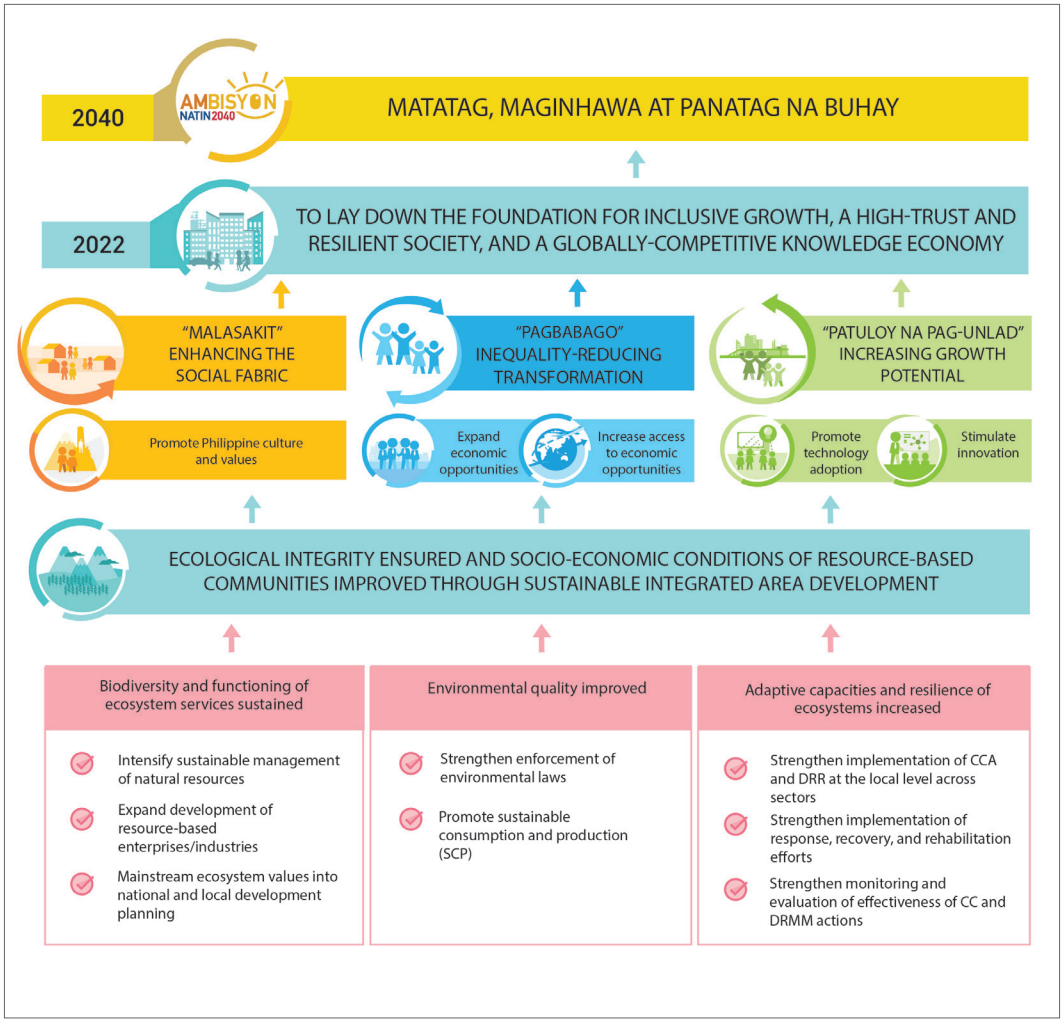
Table 20.1 Plan Targets to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022

INDICATORS	BASELINE YEAR	VALUE	END OF PLAN TARGET
Chapter Outcome: Ecological integrity ensured and socioeconomic condition of resource-based communities improved Subsector Outcome: Sustained biodiversity and functioning of ecosystem services			
Forest Cover (SDG 15)	2010	6.8 M ha	Increasing
Quality of coastal and marine habitats	2016	Coral reef: • Excellent: 12,957.51 ha • Good: 1,717.62 ha • Fair: 171,762 ha • Poor: 1,235,488.73 ha	Improving quality
Number of residential free patents issued	2016	To be determined	72,000
Employment from ecotourism and sustainable community resource-based enterprises		To be determined	Increasing
Subsector Outcome: Improved environmental quality			
Percentage of highly urbanized and other major urban centers within ambient air quality standard	2015	47% HUCs and major urban centers within ambient air quality standard for PM10 & PM2.5	Increasing
Percentage of priority water bodies within water quality guidelines	2016	• Food production: 70%	Increasing
	2016	• Recreational: 80%	Increasing
Area in (ha) assessed and mapped for soil fertility status and soil fertility management	2016	1,000,000 ha	2,700,000 ha
Area of land degradation hotspots	2016	2.3M ha	2.0M ha
Solid waste diversion rate	2015	Metro Manila: 48% Outside Metro Manila: 46%	80%
Subsector Outcome: Increased adaptive capacity and resilience of ecosystems			
Resilience index		To be determined	Increasing
Number of reviewed CC/DRRM-enhanced plans	2016	• 552 CLUPs • 37 CDPs • 1522 LDRRMPs • 1114 LCCAPs	Increasing

Strategies

Sustainable integrated area development (SIAD) and participatory environmental governance will be an overarching principle in implementing the various strategies to achieve the outcomes. SIAD will be adopted to address ecological, economic, political, cultural, societal, human, and spiritual challenges and opportunities in a specific area. It will be implemented in an integrated manner to ensure social justice and in order to improve the quality of life of the people. Specific subsector strategies consider CC and DRRM actions, and they are discussed in the succeeding sections.

Figure 20.2 Strategy Framework to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022



Subsector Outcome 1: Biodiversity and functioning of ecosystem services sustained

To sustain the provision of ecosystem services and meet both the present and future demand, the following key strategies will be implemented: (a) intensify sustainable management of natural resources through the adoption of ridge-to-reef approach and SIAD; (b) expand sustainable resource-based enterprises; and (c) mainstream ecosystem values into national and local development planning.

Intensify sustainable management of natural resources through adoption of ridge-to-reef approach and sustainable integrated area development. Conservation, protection, and management of natural resources will be strengthened to ensure that the ecosystem services are adequate. The ridge-to-reef and integrated area development approach will be adopted to ensure that the interconnectivity of the different ecosystems is considered. This will involve participation of different stakeholders and convergence of different strategies.

Forest and Watershed

- *Complete delineation of final forest limits including production and high value conservation areas as protection forest.* Forestland boundary delineation and demarcation will be undertaken to clearly mark the extent of forestlands that need proper management. This will provide the basis for identifying the areas for private sector investment (production zones) and for government and private sector protection and conservation activities (protection zones).

- *Reverse the loss of forest cover through sustained rehabilitation of degraded forestlands including critical watersheds and strengthened protection of remaining natural forests.* Rehabilitation of the remaining unproductive, denuded, and degraded areas (7.1 million ha) will be accelerated and prioritized. In addition, the protection of remaining natural forests as well as the forest established from previous reforestation activities will be ensured.

- *Effectively manage Protected Areas (PA).* Ecosystem restoration will be implemented, especially for degraded habitats (e.g., mangroves, wetlands, forest, coral reefs) as well as demarcation and zoning of PAs to avoid encroachment on boundaries of the PAs. Policy gaps, including institutional and technical capacities on PA management will be addressed.

- *Strengthen law enforcement against illegal trade of wildlife species.* Efforts to combat illegal trade of wildlife species will be strengthened through more policing activities, including designation of more forest rangers to guard against illegal collection, possession, and trade of wildlife. Regulations on bio-prospecting and other economic activities involving the country's biodiversity will also be strictly enforced.

- •*Strengthen sustainable management through the issuance of appropriate tenure and management arrangement.* Tenurial instruments[4] will be issued to clearly establish the accountability of communities in the management of forestlands and PAs. This will provide local communities the rights to develop

[4] Tenurial instruments include the following: IFMA, forest land grazing lease agreement, CBFMA, certificate of ancestral domain title and protected area community-based resources agreement

the forest resources and enjoy the economic returns.

- *Improve land administration and management.* Strengthened partnership between land-related agencies and local governments in the formulation of CLUPs and zoning of residential areas will be prioritized. This will be supported by a legislation or proclamation for the adoption of the cadastral survey results. Enhancement of modern technology, land-resource information, as well as the capacity and competence of practitioners and workers in the land sector will be pursued. In addition, delineation of ancestral domains and its waters will be accelerated, including provision of economic and cultural services to IPs/indigenous cultural communities and local communities within the framework of IPs' socio-cultural integrity and ecological balance.

- *Strengthen research and development on forest, watershed and biodiversity*. Research studies to assess the carrying capacity of ecosystem and to determine factors that threaten important native and endemic species including their habitats will be undertaken to identify appropriate conservation measures. Surface and groundwater resources nationwide will also be assessed to ensure water supply sustainability. Also a critical area of research will be the identification of the country's genetic resources and their economic potentials.

Mineral Resources

- *Strengthen environmental and social safeguards for mineral resources development*. Compliance of mining industry to existing laws, rules and regulations will be strictly enforced to safeguard the integrity of the environment and mining-affected communities. This will be done by strengthening the environmental impact statement system and guaranteeing a just and equitable distribution of mining benefits. Resource valuation studies (e.g., cost-benefit analysis) will be conducted to identify the most beneficial and sustainable use of land in support of national development.

Coastal and Marine

- *Enforce complete delineation, delimitation and zoning of municipal waters.* Delineation and delimitation of municipal waters will be completed, especially in LGUs with overlapping water boundaries (i.e., adjacent and opposite cities and municipalities). This will ensure that municipal fisherfolk of coastal cities and municipalities are given preferential use and exclusive access to the resources. This will also facilitate a more effective apprehension of violators. In addition, foreshore areas will be mapped and zoned into production and protection areas to ensure fisheries sustainability.

- *Strengthen law enforcement and the management of coastal and marine areas.* Stricter implementation and enforcement of national and local laws, policies, and plans will be pursued. Strategic policing and patrolling activities against illegal, unreported, and unregulated fishing and other extractive activities will be conducted in management areas, including marine protected areas (MPAs), and fish refuge and sanctuaries.

- *Rationalize the identification of MPAs and their networks.* Coastal and MPAs are important components of integrated coastal management (ICM) and ecosystems approach to fisheries management. They will help ensure the continued supply of seafood, underpin ecotourism, and

enhance climate resilience. Network of MPAs, fish refuge and sanctuaries and managed access areas will be pursued to improve ecological connectivity[5] and management efficiency.

- *Intensify research on coastal and marine habitats and resources.* There is a need to enhance data availability and accessibility to monitor the status and productivity of coastal and marine resources, including vulnerability to natural hazards and CC. Improved and regular data collection, scientific assessment, and identification of spawning areas for priority fish species will be conducted.

Inland Wetlands and Caves

- *Improve the management of priority inland wetlands and caves.* Management of priority inland wetlands and caves with high conservation value will be strengthened. This will include effective communication of sustainable practices and enforcement of biodiversity regulations.

Urban Biodiversity

- *Enhance green spaces in urban areas*. A policy promoting green spaces in cities as well as a monitoring metric will be developed and tested.

Expand the development of sustainable resource-based industries. Recognizing the number of poor households in the upland and coastal communities that are dependent on natural resources for their livelihood, value addition of the products derived from forests, coastal and marine resources as well as development of ecotourism products and services will be pursued.

- *Promote sustainable forest-based (timber and non-timber) industries including agroforestry*. To meet the projected demand for round wood and to reduce threats in the remaining natural forests, development of commercial forest plantations within integrated forest management agreement (IFMA), community-based forest management agreements (CBFMA), and applicable areas in ancestral domains vis-à-vis the region's comparative advantage for timber production will be supported. In addition, a registry and forest certification system will be developed and instituted to promote the sustainable management of forest and ensure the competitiveness of the country's forest-based products in the international market. Upland communities will be further assisted in developing agroforestry farms, including the use of traditional crop varieties, indigenous livestock, and biodiversity-friendly enterprises aligned with the needs of the market.

- *Promote sustainable fish- and marine-based industries.* Sustainable marine-based industries that contribute to the development of the blue economy will be pursued by using eco-friendly technologies and practices. These industries include (a) sustainable fisheries and aquaculture; (b) ocean energy, offshore and gas exploration; (c) shipping/marine transportation and ship building; (d) eco-tourism; and (e) marine biotechnology and bio-prospecting[6], among others. The identification and designation of areas for community fish landing centers will also be pursued, as these centers will enable municipal fisherfolk to have access to cold storage facilities and

[5] Results of study under the *Strengthening MPAs to Conserve Marine Key Biodiversity Areas in the Philippines* project
[6] Bioprospecting of marine resources in accordance with the Nagoya Protocol on Access and Benefit Sharing (ABS).

improve the quality and value of fish and other marine products.

- *Develop a system for access and benefit sharing (ABS) of wealth from genetic resources*. A national policy framework on ABS will be developed to enhance regulatory measures and to protect genetic resources as well as the traditional knowledge of indigenous communities. An ABS system will be developed to monitor and optimize the utilization of genetic resources, ensure equitable sharing of revenues between government and product developers, and protect the rights of communities where the resources are found.

- *Promote and develop ecotourism and cultural sites.* Promotion and development of ecotourism and cultural sites will be pursued, particularly in key upland and coastal destinations, including wetlands and cave systems. In particular, the following will be conducted: (a) identification of ecotourism and cultural tourism destinations and products and promoting them in the domestic and international markets; (b) diversification of existing destinations and creation of new tourism areas and products; (c) encouraging development tourism-related products and services using community-based approaches; and (d) creating an environment conducive for ecotourism investment.

Mainstream ecosystem values into national and local development planning. With the range of services and products sourced from natural resources, mainstreaming accounting and valuation in the development planning is necessary to ensure that due importance and appropriate management will be given to these finite resources. Identifying the true value of the resources will: (a) facilitate informed decision making of political leaders and local communities; (b) provide better alternatives and trade-offs; and (c) generate income and employment in the rural areas and create wealth for the nation.

- *Institutionalize ecosystem valuation and natural resource monitoring system*. Ecosystem service indicators will be included in forest, watershed, coastal and marine monitoring systems to help track the health and benefits of ecosystems, including the impact of threats and drivers, such as CC, to these ecosystems.[7]

- *Develop a policy for Payments for Ecosystem Services*. A policy to institutionalize payment for ecosystem services that will provide incentives in the management of ENR will be developed. This will also provide an alternative source of income to the local communities.

Subsector Outcome 2: Environmental quality improved

Stricter implementation of existing legal frameworks will be pursued to promote a clean and healthy environment. Strategies will focus on strengthening compliance with environmental standards and safeguards as well as developing, promoting, and adopting sustainable consumption and production (SCP) practices. These strategies will mitigate the negative environment and health impact of economic activities.

Strengthen enforcement of environmental laws. The enforcement and monitoring of compliance to existing laws and regulations will be intensified to achieve the desired

[7] Watershed ecosystem service indicators include: (a) total water yield (m3/ha/yr.); (b) sediment retention capacity (t/ha/yr.); (c) avoided potential floodwater (m3).

quality of the environment. The following are the strategies on air, water, and land quality management:

Air Quality Management

- Increase the number of upgraded air quality monitoring stations and improve the procurement process
- Strengthen the enforcement of the anti-smoke belching campaign and vehicle emission testing
- Promote environmentally-sustainable transport, including the mass transport system, use of cleaner fuels, and conversion to fuel-efficient engines (*see also Chapter 19*)
- Enforce the creation of airshed governing boards and ensure that they are functional
- Strengthen the enforcement of air quality standards among industry players

Water Quality Management

- Strengthen water quality monitoring by maintaining the number of water monitoring stations, establishing, and operationalizing the required number of water quality management areas, and enhancing capacity for laboratory analysis
- Improve wastewater management by increasing the number of domestic, commercial and industrial wastewater treatment facilities in water districts, LGUs, and sites maintained by the private sector (*see also Chapters 9 and 19*)
- Identify pollutants, including persistent organic pollutants and heavy metals in priority water bodies and determine the appropriate management interventions
- Formulate guidelines to access the National Water Quality Management Fund and Area Water Quality Management Fund
- Develop and enhance modeling tools for water quality scenario-building
- Implement the National Sewerage and Septage Management Program (*see also Chapter 19*)

Land Quality Management

- *Promote sustainable land management (SLM) to arrest land degradation*
  - Integrate SLM practices into sectoral, national, and local development plans and natural resources management plans
  - Improve local capacities and skills for planning and management of land resources, and strengthen awareness and advocacy campaigns
  - Scale up and promote SLM in production landscapes and within multiple-use zones in PAs
  - Implement soil erosion control in sloping areas and water impounding technologies in flood-prone areas within major river basins
  - Develop and implement the National Soil and Water Conservation Program to improve soil fertility and vegetative cover
  - Promote integrated nutrient management based on soil tests and balanced application of appropriate fertilizers

- *Improve management of solid, toxic. and hazardous wastes including electronic wastes*
  - Enforce the compliance of LGUs to RA 9003 in relation to the establishment of material recovery facilities and treatment facilities; closure and rehabilitation of remaining dumpsites; and formulation of local solid waste management (SWM) plans
  - Promote the practice of 3Rs and proper waste management
  - Promote strategic clustering

of sanitary landfills and SWM technologies to address their large capital requirement, and allow low-income LGUs to pool their resources to finance such facilities
  - Provide alternative livelihood activities for waste pickers in the remaining dumpsites identified for closure
  - Improve the management and disposal of electronic, hospital and toxic wastes

- *Transform abandoned mines and mined-out areas into land use that is beneficial to communities*
  - Implement and monitor the rehabilitation of remaining abandoned mines, namely, Bagacay, Palawan Quicksilver, Romblon, and Silica Sand mines, as well as the smooth turnover of management to LGUs
  - Continue monitoring and auditing the progressive rehabilitation of operating surface metallic mines to ensure the environmental compliance of mining companies

Promote sustainable consumption and production. The government will develop and implement SCP policies and initiatives, particularly practices and technologies that will facilitate the attainment of both economic goals and environmental standards. In particular, the following strategies will be pursued to strengthen SCP promotion:

- Formulate a "polluters pay" policy and implement corresponding measures
- Establish a sustainable market for recyclables and recycled products
- Strengthen the certification and establish information systems for green products and services
- Strengthen the implementation of Philippine Green Jobs Act
- Promote green procurement in the public and private sectors
- Strengthen the promotion, development, transfer, and adoption of eco-friendly technologies, systems, and practices in the public and private sectors by increasing access to incentives and facilitating ease of doing business and other related transactions, among others (*see also Chapters 9, 10, 14 and 19*);
- Intensify the use of renewable energy and increase its share in the energy mix (*see also Chapter 19*)
- Promote the conduct of a GHG inventory in the public and private sectors

Subsector Outcome 3: Adaptive capacities and resilience of ecosystems increased

Strategies will be geared toward strengthening the implementation of CCA and DRR actions across sectors, including ENR. Response, rehabilitation and recovery efforts will be continuously pursued, with emphasis on strategies to rehabilitate affected natural resources, rebuild infrastructure facilities, and allow communities to recover losses and continue their livelihood and business operations.

Strengthen the implementation of CCA and DRR across sectors, particularly at the local level. Because preparatory activities for building adaptive capacity and resilience are limited, the following specific strategies will be pursued:

- *Strengthen existing inter-agency bodies that serve as venues for improving policy making and implementation of CC and DRRM*. Horizontal and vertical integration of climate-resilient planning, programming and budgeting on CC and DRRM will be ensured.

The Memorandum of Understanding between the Climate Change Commission and National Disaster Risk Reduction and Management Council will be operationalized to provide an enabling environment for mainstreaming DRR and CCA with regard to: (a) setting standards and requirements to integrate local DRRM and CC action plans; (b) ensuring the interoperability of databases to develop a decision support system; (c) implementing appropriate DRRM and CC actions; and (d) establishing coordinated monitoring, reporting and evaluation system. *See Chapter 5*.

- *Develop, maintain, and ensure the accessibility of climate and geospatial information and services.* This includes the following activities: (a) completing the coverage and ensuring access to large scale (1:10,000) probabilistic hazard maps; (b) conducting a nationwide geo-referenced mapping of exposed elements; (c) developing risk estimation models to determine the value of potential loss and damage for different scenarios; (d) improving the loss and damage database to generate disaggregated information about vulnerable and affected groups; (e) identifying and mapping natural ecosystems that contribute to resilience; and (f) standardizing definition and methodologies to measure DRRM and CC variables.

- *Develop a data protocol to facilitate access and sharing of available scientific researches and studies, geospatial information, and climate projection*. A clear policy on accessing and sharing CCAM and DRRM data will be formulated consistent with the provisions of Executive Order No. 02 on Freedom of Information. *See Chapter 5*.

- *Continue to mainstream CCAM and DRRM in national and local development plans and policies*. Government at all levels will be informed of the latest CC projection and risk and vulnerability assessment to identify appropriate interventions and avoid maladaptation. Existing financing schemes and auditing systems will also be revisited to support CCAM and DRRM priorities. *See Chapter 5*.

- *Promote climate and disaster-resilient structures and designs following established measures and standards*. Retrofitting and construction of climate-smart and disaster-resilient infrastructures and facilities will be pursued, especially in hazard-prone areas and environmentally-critical areas. *See Chapters 3, 9, 12 and 19*.

- *Identify technological and research priorities and capacity needs on CCAM and DRRM*. This strategy includes but is not limited to: (a) development of methodologies/tools for national-level risk informed planning and programming; (b) scenario development and modelling of sectoral climate impact; (c) cost-benefit analysis of implementing CCAM and DRRM alternatives; (d) low carbon innovations to address CCA and DRR; (e) approaches and tools to address impact of slow onset events such as sea level rise and ocean acidification; and (f) improved weather detection, forecasting and monitoring. *See Chapters 14 and 19*.

- *Maximize access to CC and DRRM financing and risk transfer mechanisms*. Information on available international and national CC and DRRM financing facilities will be widely disseminated. Technical assistance to stakeholders, particularly LGUs will be provided to

comply with the requirements of such facilities. On risk transfer mechanism, CC considerations will be incorporated in the design of financing packages and insurance products.

- *Promote business continuity planning.* Businesses, especially micro, small and medium enterprises and cooperatives, will be encouraged to prepare business continuity plans for dealing with disaster risks. *See Chapters 9, 10 and 12.*

Strengthen institutional response to disasters. Priority will be given to activities that will further improve the timely delivery of response, recovery, and rehabilitation efforts, and contribute toward increasing resilience level. *See Chapters 11 and 12.*

- *Strengthen mechanism to conduct a post or rapid disaster needs assessment (P/RDNA).* Nationwide vulnerability and risk assessment will be completed to provide the bases for a P/RDNA. In addition, there will be capacity-building programs for concerned agencies in the conduct of P/RDNA, including inventory and assessment of damaged natural resources.

- *Revisit existing policies on post-disaster housing and resettlement programs, including those related to land development.* Housing, procurement and land development policies and process, particularly in areas affected by disasters, will be reviewed and amended as needed. The identification of housing and resettlement areas should be in appropriate land-use and will not encroach on environmentally-critical areas and conservation sites. *See Chapters 11 and 12.*

Strengthen the monitoring and evaluation of the effectiveness of CC and DRRM actions. This includes activities related to the identification of indicators and development of monitoring systems to measure the implementation and effectiveness of CC and DDRM initiatives vis-à-vis Sustainable Development Goals (SDG), Sendai Framework for Disaster Risk Reduction, and United Nations Framework Convention on Climate Change Commitments.

- *Identify appropriate indicators to measure adaptive capacity and resilience.* Indicators linked to vulnerability vis-à-vis interventions provided will be identified and integrated in existing monitoring systems. This includes ecosystem service indicators that help assess conditions of natural resources.

- *Develop a database to measure emission reduction per sector.* Pursuant to EO 174, there is a need to conduct GHG inventory for agriculture, forestry, energy, transport (i.e., land, maritime and aviation), waste, and industry. This will assist the monitoring, reporting and verification of the country's GHG emissions.

Cross-cutting Strategy

Review, codify and streamline existing ENR policies, rules and regulations to improve compliance, address conflicting provisions and promote transparency and accountability. Sustainable financing mechanisms for ENR, CCA and DRRM efforts will also be determined and operationalized to ensure continuity of activities. But still, strongly motivating behavioral change at the national, community and individual levels regarding ENR preservation and management will be the most effective strategy.

Legislative Agenda

To strengthen the effectiveness of the strategies, legislative action is needed in the following:

Table 20.2 Legislative Agenda to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Subsector Outcome: Biodiversity and functioning of ecosystem services sustained	
Delineation of the Specific Forest Limits	Provide a clear and solid basis on the limits of the forest line.
Comprehensive Forestry Law	Institutionalize the development of an effective and sustainable forest management strategy based on the allocation of forestland uses (i.e. production and protection zones). This will also enhance private sector participation and develop systems on Forest Certification and Forest Monitoring, Assessment and Reporting.
Integrated Coastal Management Strategy	Institutionalize ICM as a strategy for the sustainable development of coastal and marine areas.
Land Administration Reform Act	Streamline standards, processes and regulations for property rights, valuation and taxation.
Amendment of Water Code	Provide a legal framework for the institutionalization and operationalization of Integrated Water Resources Management to respond to current trends and challenges such as climate variability affecting water supply and availability, as well as address institutional gaps and weaknesses.
Expanded National Integrated Protected Areas System Act	Finalize/hasten establishment of around a hundred national protected areas since only 13 have been established since 1992.
Subsector Outcome: Environmental quality improved	
Electronic waste (e-waste) recycling	Address improper disposal of e-waste and facilitate the advancement of existing efforts to strengthen solid waste management.
Amendment to RA 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act)	Address the emerging toxic and hazardous wastes which are not covered by the current provisions of the law.
Subsector Outcome: Adaptive capacity and resilience of ecosystems increased	
Further strengthening the Philippine DRRM system and institutionalizing the Framework Plan	Create a National Disaster Risk Reduction and Management Authority and integrate new policies on disaster preparedness, response, mitigation/prevention and rehabilitation/recovery to address existing implementing gaps and challenges.
Cross-cutting	
National Land Use Act	Address the urgency to provide rationalized land use planning in the country, consolidate national laws on land uses and address long-standing land use conflicts.
Philippine Environmental Assessment System	Ensure that possible environmental consequences of policies, plans and programs are fully-accounted at the earliest stage of decision-making consistent with economic and social considerations. This will also strengthen the use of Environmental Impact Statement System as a planning and monitoring tool.

PART VII

PLAN IMPLEMENTATION AND MONITORING

21 Plan Implementation and Monitoring

Chapter 21

Plan Implementation and Monitoring

The Philippine Development Plan (PDP) 2017-2022, being the first medium-term plan to operationalize *AmBisyon Natin 2040*, is expected to lay a solid foundation for truly inclusive growth, a high-trust society, and a globally competitive knowledge economy. The government will set the necessary policy and regulatory environment and provide public goods and services by Enhancing the social fabric (*Malasakit*), Reducing inequality (*Pagbabago*), and Increasing Potential Growth (*Patuloy na Pag-unlad*).

Effectively implementing the PDP calls for efficient coordination among government agencies at all levels, the private sector, civil society, and development partners. During the implementation period, the efficiency and effectiveness of the various strategies and programs discussed throughout the plan will be monitored. Efficiency will be determined in terms of how the activities of the government, the private sector, civil society, and development partners have been guided by the intended outcomes. Effectiveness will be evaluated in terms of the extent to which the quality of life of Filipinos, especially the poor and marginalized, has improved.

Headline indicators will be monitored by the National Economic and Development Authority (NEDA) Secretariat using data from the Philippine Statistics Authority (PSA), which consist of: (a) real gross domestic product growth; (b) real per capita income growth; (c) poverty and subsistence rates in both rural and urban areas; and (d) employment outcomes, such as overall unemployment rate, youth unemployment rate, and underemployment especially in rural areas.

The NEDA Secretariat will work with various implementing agencies to prioritize and sequence identified strategies, programs, and policies, including proposed legislations. The monitoring of outcomes and implementation progress will be reported to the appropriate NEDA Board Committee, existing Cabinet Clusters, and Inter-Agency Committees *(see Table 21.1)*.

The NEDA Secretariat will also prepare an annual Socioeconomic Report to present the accomplishments of outputs and outcomes. This report will also identify key challenges and provide policy directions moving forward.

The first pillar in the Plan is a commitment to lay the foundation for building a high-trust society through *Malasakit*. This will focus on enhancing the social fabric through people-centered, efficient and clean governance *(Chapter 5)*, swift and fair administration of justice *(Chapter 6)*, and promoting the country's diverse cultures and values for the common good *(Chapter 7)*. The Inter-Agency Committee on Development Administration,[1] in coordination with the Good Governance and Anti-Corruption Council, will oversee the implementation of strategies. The Office of the Cabinet

[1] There is a proposal to expand the membership of this committee to include other relevant government agencies. An Executive Order is also being proposed to create a Cabinet Cluster on Participatory Governance.

Secretary, through its Office of Participatory Governance and Strategic Action Response Office (for institutionalizing response and feedback mechanisms), the Presidential Communications Office, and the Department of Information and Communication Technology (for ensuring public access to information) will work together to ensure that citizens are fully engaged and empowered.

Meanwhile, the Office of the Ombudsman will implement strategies to improve anti-corruption initiatives. The Justice Sector Coordinating Council will be the mechanism for ensuring that the programs and interventions of the government relating to the swift and fair administration of justice are well-coordinated. Filipinos will also be made aware of the country's diverse cultures and will learn about Filipino values that foster the common good. To this end, the National Commission for Culture and the Arts will spearhead the review and development of related policies and programs. Furthermore, the National Commission on Indigenous Peoples will provide support, especially in the implementation of programs to address cultural issues affecting indigenous peoples. Through the NEDA Secretariat, the progress of implementation will be reported to the Social Development Committee (SDC) of the NEDA Board, under which a Sub-committee on Culture will be created.

The second pillar is inequality-reducing transformation that will make ordinary Filipinos feel ***Pagbabago*** across economic sectors. This will expand socioeconomic opportunities in sub-sectors and economic groups that have lagged behind. Inequality will also be reduced by accelerating human capital development and strongly addressing vulnerability.

In monitoring the performance of the major production sectors, e.g. agriculture, fishery, and forestry sector *(Chapter 8)* and the industry and services sectors *(Chapter 9)*, the NEDA Secretariat will coordinate with all relevant implementing agencies regarding the preparation of regular progress reports for submission to the Economic Development Cluster (EDC). The EDC will be the main coordination mechanism that will oversee the tracking of achievements vis-à-vis the plan targets. Improvements in human development outcomes will be monitored through the Social Development Cluster (SDC) *(Chapters 10 through 12)*. In addition, the Commission on Population will be actively involved in ensuring that policies and programs are implemented so that the country can take advantage of the demographic dividend *(Chapter 13)*. Regular progress reports will be submitted for discussion by the NEDA Board's SDC.

The third pillar concerns increasing the country's potential economic growth -- an imperative to sustain long-run socioeconomic development or to ensure ***Patuloy na Pag-unlad.*** To this end, the Plan will focus on optimizing technology adoption and encouraging innovation *(Chapter 14)*. At the forefront of carrying out the strategies identified in the Technology and Innovation chapter, particularly the implementation of technology transfer policies, will be the Department of Science and Technology (DOST), along with the Intellectual Property Office of the Philippines. To ensure consistency of policies, however, there is a need to strengthen the Science and Technology Coordinating Council as the coordinating mechanism for monitoring program implementation.

To provide an enabling and supportive economic environment conducive to growth, a strategic macroeconomic policy *(Chapter 15)* will be put in place. In ensuring macroeconomic stability, the Department of Finance, including its attached agencies (Bureau of Treasury, Bureau of Internal Revenue, Bureau of Customs, and Bureau of Local Government

Finance), and the Department of Budget and Management will be responsible for implementing the government's strategies for revenue generation, expenditure and debt management. The Bangko Sentral ng Pilipinas (BSP) will ensure that the monetary and financial sectors remain stable. The BSP will also lead the implementation of the country's financial inclusion agenda. The Development Budget Coordination Committee of the NEDA Board will monitor the achievement of macroeconomic targets and the review of strategies identified in the Plan. As regards the attainment of external trade targets, particularly exports of goods and services, the agency responsible for monitoring and implementing the strategies will be the Department of Trade and Industry (DTI). Updates will be reported to the EDC and will be reflected in the Philippine Export Development Plan.

To ensure a level playing field for micro, small, and medium enterprises (MSMEs), the Philippine Competition Commission will be the lead agency in formulating the framework of the country's national competition policy *(Chapter 16)*. Progress in this area will be reported to the EDC through the NEDA Secretariat.

Underpinning all the identified major strategies in the plan are the areas that will serve as the foundation for attaining its overall objectives. There will be earnest efforts to secure lasting peace *(Chapter 17)* through the resumption of peace talks. National security against internal and external threats will be guaranteed, as well as restoring public order and safety *(Chapter 18)*. The government will work to enhance the physical environment through a balanced and strategic development of infrastructure *(Chapter 19)*, while ensuring that there is ecological integrity and a clean and healthy environment *(Chapter 20)*.

The Office of the Presidential Adviser on the Peace Process (OPAPP) will lead the monitoring of progress in the area of peace and development. The OPAPP will be closely coordinating with other pertinent agencies responsible for the accomplishment of annual targets, particularly the Department of National Defense, Department of the Interior and Local Government (DILG), National Electrification Administration, Department of Education, and Commission on Human Rights. The Cabinet Cluster on Security, Justice, and Peace will also be utilized as a mechanism to ensure the consistency of programs among implementing agencies.

The NEDA Board Infrastructure Committee (InfraCom), which serves as the Planning Committee for Infrastructure Development, will pay close attention to the implementation of infrastructure strategies and interventions. In monitoring the progress of plan implementation, the InfraCom, through the NEDA Secretariat, will focus on the five infrastructure areas and coordinate with the identified lead agency per strategic infrastructure area, namely: (a) transport (Department of Transportation); (b) water (Department of Public Works and Highways, National Water Resources Board); (c) energy (Department of Energy); (d) information and communications technology (Department of Information and Communications Technology);, and (e) social infrastructure, which involves various agencies.[2]

For monitoring progress in maintaining ecological integrity, clean and healthy environment, the NEDA Secretariat will coordinate with relevant government agencies such as the Department of Environment and Natural Resources, DTI, Office of Civil Defense-National Disaster Risk Reduction and Management

[2] Various government agencies will be involved, namely: Department of Health for health, Department of Education for education, Department of Environment and Natural Resources for waste management.

Council, DILG, and Housing and Land Use Regulatory Board. The achievement of sector and sub-sector outcomes will be reported to the Cabinet Cluster on Climate Change Adaptation, Mitigation, and Disaster Risk Reduction.[3]

Statistics play a crucial role in mapping out the country's development agenda. It can clearly spell out priority programs based on benchmark information as well as thematic areas or planned targets through the Results Matrix. This matrix indicates the required statistics, indicators, and information gathering systems that need to be developed to cover new priorities. To respond to these challenges, the Philippine Statistical System, spearheaded by the PSA, proposes to work with institutions and other organizations in the government and the private sector to discuss the essential statistical programs and to craft the Philippine Statistical Development Program (PSDP) 2017-2023. Likewise, a Medium-Term Expenditure Framework will be developed to specify the corresponding budget aligned with these priority programs to realize the implementation of the PSDP.

Ultimately, communication and stakeholder engagement will be important to generate support and cooperation among stakeholders and the general public. The NEDA Secretariat will spearhead a communication and engagement program, and work with the NEDA regional offices and communication departments of implementing agencies to inform and actively engage the stakeholders throughout the plan period.

[3] An Executive Order is being proposed to expand the Cabinet Cluster on Climate Change Adaptation and Mitigation to include disaster risk reduction-

Table 21.1 Coordination Mechanism for Plan Implementation and Monitoring

PDP CHAPTER	COORDINATION MECHANISM	NEDA SECRETARIAT
Chapter 3: Overlay of Economic Growth, Demographic Trends, and Physical Characteristics	NEDA Board-National Land Use Committee	Regional Development Staff
Chapter 4: The Framework	NEDA Board	Office of the Undersecretary for Policy and Planning
Chapter 5: Ensuring People-Centered, Clean, and Efficient Governance	Inter-Agency Committee on Development Administration; Good Governance and Anti-Corruption Council; Cabinet Cluster on Participatory Governance	Governance Staff
Chapter 6: Pursuing Swift and Fair Administration of Justice	Justice Sector Coordinating Council	Governance Staff
Chapter 7: Promoting Philippine Culture and Values	National Commission for Culture and the Arts; NEDA Board-Social Development Committee, under which a Sub-Committee on Culture will be created	Development Information Staff
Chapter 8: Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries	Economic Development Cluster	Agriculture, Natural Resources, and Environment Staff
Chapter 9: Expanding Economic Opportunities in Industry and Services	Economic Development Cluster	Trade, Services, and Industry Staff
Chapter 10: Accelerating Human Capital Development	NEDA Board-Social Development Committee	Social Development Staff
Chapter 11: Reducing Vulnerability of Individuals and Families	NEDA Board-Social Development Committee	Social Development Staff
Chapter 12: Building Safe and Secure Communities	NEDA Board-Social Development Committee	Social Development Staff
Chapter 13: Reaching for the Demographic Dividend	NEDA Board-Social Development Committee; Population Commission	Social Development Staff
Chapter 14: Vigorously Advancing Science, Technology, and Innovation	DOST Research Councils or the Science and Technology Coordinating Council	Trade, Services, and Industry Staff
Chapter 15: Ensuring Sound Macroeconomic Policy	NEDA Board-Development Budget Coordination Committee	National Policy and Planning Staff
Chapter 16: Formulating the Framework for a National Competition Policy	Economic Development Cluster; Philippine Competition Commission	Governance Staff
Chapter 17: Attaining Just and Lasting Peace	Cabinet Cluster on Security, Justice and Peace	Regional Development Staff
Chapter 18: Ensuring Security, Public Order, and Safety	Cabinet Cluster on Security, Justice and Peace	Regional Development Staff
Chapter 19: Accelerating Strategic Infrastructure Development	NEDA Board-Infrastructure Committee	Infrastructure Staff
Chapter 20: Ensuring Ecological Integrity, Clean and Healthy Environment	Cabinet Cluster on Climate Change Adaptation, Mitigation, and Disaster Risk Reduction	Agriculture, Natural Resources, and Environment Staff

List of Acronyms

°C	Degrees Celsius
3D	Three-dimensional
ABS	Access and benefit sharing
ADR	Alternative dispute resolution
AFF	Agriculture, fisheries, and forestry
AFP	Armed Forces of the Philippines
AIDS	Acquired immunodeficiency syndrome
ALS	Alternative Learning System
APG	ASEAN Power Grid
AQRF	ASEAN Qualifications Reference Framework
ARB	Agrarian reform beneficiaries
ARMM	Autonomous Region in Muslim Mindanao
ASEAN	Association of Southeast Asian Nations
AVSEGROUP	Aviation Security Group
BBL	Bangsamoro Basic Law
bcm	Billion cubic meters
BIMP-EAGA	Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area
BIR	Bureau of Internal Revenue
BJMP	Bureau of Jail Management and Penology
BNS	Barangay nutrition scholar
BOC	Bureau of Customs
BSP	Bangko Sentral ng Pilipinas
BuCor	Bureau of Corrections
CAB	Comprehensive Agreement on the Bangsamoro
CAR	Cordillera Administrative Region
CARP	Comprehensive Agrarian Reform Program
CBA-CPLA	Cordillera Bodong Administration-Cordillera People's Liberation Army
CCC	Climate Change Commission
CDC	Child development center
CDO	Cagayan de Oro
CHED	Commission on Higher Education
CHR	Commission on Human Rights
CISFA	Comprehensive and Integrated Shelter Finance Act
CJiX	Criminal Justice Information Exchange
CLOA	Certificate of Land Ownership Award

CLUP	Comprehensive Land Use Plan
cm	Centimeters
CMP	Community mortgage program
COA	Commission on Audit
CompR	Completion rate
CPA	Citizen participatory audit
CPI	Corruption Perceptions Index
CPP-NPA-NDF	Communist Party of the Philippines-New People's Army-National Democratic Front
CRK	Clark International Airport
CSO	Civil society organization
CSR	Cohort survival rate
DA	Department of Agriculture
DARAB	Department of Agrarian Reform Adjudication Board
DDB	Dangerous Drugs Board
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DICT	Department of Information and Communications Technology
DILG	Department of the Interior and Local Government
DOE	Department of Energy
DOH	Department of Health
DOJ	Department of Justice
DOST	Department of Science and Technology
DPWH	Department of Public Works and Highways
DRRM	Disaster risk reduction and management
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
DTTB	Digital terrestrial television broadcasting
E-JOW	Enhanced justice on wheels
ECCD	Early childhood care and development
EDC	Economic Development Cluster
EFI	Index of Economic Freedom
ENR	Environment and natural resources
EO	Executive Order
EODB	Ease of Doing Business
EU	European Union
FAB	Framework Agreement on the Bangsamoro
FDI	Foreign direct investment
FMR	Farm-to-market road
FPA	Final Peace Agreement

GCG	Governance Commission for Government Owned and Controlled Corporations
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GDP	Gross domestic product
GHG	Greenhouse gas
GIDA	Geographically isolated and disadvantaged area
GII	Global innovation index
GOCC	Government owned and controlled corporation
GPH	Government of the Philippines
GRDP	Gross regional domestic product
GSIS	Government Service Insurance System
GVA	Gross value added
GWh	Gigawatt-hour
ha	Hectare
HDMF	Home Development Mutual Fund (a.k.a PAG-IBIG Fund)
HEI	Higher education institution
HELP ME	Health; Education and Training; Livelihood; Prevention, Protection, and Prosecution; Monitoring and Evaluation
HGC	Home Guaranty Corporation
HIV	Human immunodeficiency virus
HLRPP	Housing Loan Receivables Purchase Program
HLURB	Housing and Land Use Regulatory Board
HNRDA	Harmonized National Research and Development Agenda
hp/ha	Horsepower per hectare
HRH	Human resources for health
HRM	Human resource management
HUDCC	Housing and Urban Development Coordinating Council
I&S	Industry and services
ICT	Information and communications technology
InfraCom	Infrastructure Committee
IPCC	Intergovernmental Panel on Climate Change
IRA	Internal revenue allotment
IRC	Interest rate corridor
ISF	Informal settler family
ISO	International Organization for Standardization
JSCC	Justice Sector Coordinating Council
kg	Kilogram
KSA	Key shelter agency
LAD	Land acquisition and distribution

LGC	Local Government Code
LGU	Local government unit
lm	Lineal meter
LMI	Labor market information
MASA-MASID	Mamamayan Ayaw Sa Anomalya-Mamamayan Ayaw Sa Illegal na Droga
Mbps	Megabit per second
mcm	Million cubic meters
MHPSS	Mental health and psychosocial support services
MILF	Moro Islamic Liberation Front
ML	Million liters
MNLF	Moro National Liberation Front
MPA	Marine protected area
MSME	Micro, small, and medium enterprise
MT	Megaton
MTOE	Metric tons of oil equivalent
MW	Megawatts
NAP-WPS	National Action Plan on Women, Peace, and Security
NBI	National Bureau of Investigation
NCD	Non-communicable disease
NCP	National Competition Policy
NCR	National Capital Region
NDHS	National Demographic and Health Survey
NDRRMC	National Disaster Risk Reduction and Management Council
NEA	National Electrification Administration
NEDA	National Economic and Development Authority
NFA	National Food Authority
NGO	Non-government organization
NHA	National Housing Authority
NHIP	National Health Insurance Program
NHMFC	National Home Mortgage Finance Corporation
NJIS	National Justice Information System
NOAH	Nationwide Operational Assessment of Hazards
NRPF	National Resettlement Policy Framework
NSP	National Shelter Program
NSS	National Spatial Strategy
NSSMP	National Sewerage and Septage Management Program
NTC	National Telecommunications Commission
NUA	New urban agenda
O&M	Operations and maintenance

OBI	Open budget index
OECD	Organisation for Economic Co-Operation and Development
OMB	Office of the Ombudsman
OSH	Occupational safety and health
OTS	Office of Transport Security
OWWA	Overseas Workers Welfare Administration
P/RDNA	Post or rapid disaster needs assessment
PA	Protected area
PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PAMANA	Payapa at Masaganang Pamayanan
Pantawid Pamilya	Pantawid Pamilyang Pilipino Program
PBIS	Performance-Based Incentives System
PCC	Philippine Competition Commission
PCG	Philippine Coast Guard
PCIC	Philippine Crop Insurance Corporation
PDEA	Philippine Drug Enforcement Agency
PDP	Philippine Development Plan
PFM	Public Financial Management
PhD	Doctor of Philosophy
PHFDP	Philippine Health Facilities Development Plan
PhilGEPS	Philippine Government Electronic Procurement System
PhilJA	Philippine Judicial Academy
PM10	Particulate matter measuring 10 micrometers in diameter or smaller
PMR	Product market regulation
PNP	Philippine National Police
PPA	Parole and Probation Administration
PQF	Philippine Qualifications Framework
PSA	Philippine Statistics Authority
PSDP	Philippine Statistical Development Program
PSF	People Survival Fund
PWD	Persons with disability
R&D	Research and development
RA	Republic Act
RORO	Roll-on-roll-off
RPMP-RPA-ABB	Rebolusyonaryong Partidong Manggagawang Pilipinas-Revolutionary Proletarian Army-Alex Boncayao Brigade
RPRH	Responsible Parenthood and Reproductive Health
S&T	Science and technology
SALN	Statement of assets, liabilities and net worth

SCP	Sustainable consumption and production
SDGs	Sustainable Development Goals
SDN	Service delivery networks
SHFC	Social Housing Finance Corporation
SHS	Senior high school
SIAD	Sustainable integrated area development
SK	Sangguniang Kabataan
SpEd	Special education
SSS	Social Security System
STEM	Science, Technology, Engineering and Mathematics
STI	Science, technology and innovation
STRIDE	Science, Technology, Research and Innovation for Development
SUC	State university and college
SWA	Social welfare attachés
SWM	Solid waste management
TAGP	Trans-ASEAN gas pipeline
TEU	Twenty-four equivalent unit
TRO	Temporary restraining order
TRP	Tripartite Review Process
TVET	Technical-vocational education and training
UNCAC	United Nations Convention Against Corruption
UNCLOS	United Nations Convention on the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSCR	United Nations Security Council Resolution
USAID	United States Agency for International Development
WD	Water district
WEF	World Economic Forum
WELL	Welfare, Employment, Legal and Livelihood Program
WESM	Wholesale electricity spot market
WGI	Worldwide Governance Indicators
WIS	Workers in the informal sector
WJP	World Justice Project
WSSS	Water supply, sanitation, and sanitation
µg/Ncm	Microgram per normal cubic meter

Glossary

21st Century Skills	Generally used to refer to certain competencies such as collaboration, digital literacy, problem-solving, civic literacy, global awareness and cross-cultural skills; gender sensitivity; critical and inventive thinking; communication, collaboration and information skills; risk-taking; entrepreneurial skills; passion for learning and discovery; and resiliency.
Absorptive capacity	A measure of an agency's ability to maximize the use of financial resources made available to it.
Accreditation	The action or process of officially recognizing the competence of any supplier of Philippine goods and services to promote reliability and confidence in its quality, competitiveness, and international acceptance. The process follows a uniform and technical policy. (Aquino, 2016)
Achievement rate	The degree of performance in different subject areas in various levels of education (DepEd, n.d.).
Acquisition	It refers to the purchase or transfer of securities or assets, through contract or other means, for the purpose of obtaining control.
Adaptive capacity	Refers to the ability of ecological, social or economic systems to adjust to climate change including climate variability and extremes, to moderate or offset potential damages and to take advantage of associated opportunities with changes in climate or to cope with the consequences thereof (RA 9729, 2009).
Advanced Device and Materials Testing Laboratories	A testing laboratory equipped with advanced analytical equipment for failure analysis and materials characterization.
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.).
Agrarian reform	The redistribution of lands to farmers and regular farm workers who are landless--irrespective of tenurial arrangement--to include the totality of factors and support services designed to lift the economic status of the beneficiaries and all other arrangements alternative to the physical redistribution of lands, such as production or profit-sharing labor administration, and the distribution of shares of stock, which will allow beneficiaries to receive a just share of the fruits of the lands they work (RA 6657, 1988).

Agrarian reform beneficiaries	Farmers who were granted lands (under Presidential Decree No. 27, the Comprehensive Agrarian Reform Law, and Republic Act No. 9700) and regular landless farm workers who benefited from the redistribution of lands, support services, and all other alternative arrangements to the physical distribution of lands (i.e. production or profit sharing, labor administration, and the distribution of shares of stock) which will allow beneficiaries to receive a just share of the fruits of the lands they work (RA 10000, 2009).
Agribusiness	The sum of all operations involved in the manufacture and distribution of farm supplies; production activities on the farm; and the storage, processing and distribution of farm commodities and items made from them (DAR, 2009).
Agricultural and Fisheries Mechanization	The development, adoption, assembly, manufacture, and application of appropriate, location specific, and cost-effective agricultural and fisheries machinery using human, animal, mechanical operations. These machineries may use electrical, renewable, and other non-conventional sources of energy for agricultural production and postharvest or postproduction operations consistent with agronomic conditions and for efficient and economic farm and fishery management towards modernization of agriculture and fisheries. (RA 10601, 2013)
Agricultural insurance	A risk managing tool that provides protection to farmers, fisherfolk and other agricultural stakeholders against losses of their crops and produce, including their farm machineries and equipment, transport facilities, and related infrastructure arising from natural calamities, pests and diseases, and other perils beyond their effective control.
Agricultural lands	Lands devoted to or suitable for the cultivation of the soil, planting of crops, growing of trees, raising of livestock, poultry, fish or aquaculture production, including the harvesting of such farm products, and other farm activities and practices performed in conjunction with such farming operations by persons whether natural or juridical and not classified by the law as mineral land, forest land, residential land, commercial land, or industrial land (RA 8435, 1997).
Agroforestry	Refers to the strategy of sustainable management of lands to increase their overall productivity. This is achieved by properly combining agricultural crops and/or livestock with forest crops simultaneously or sequentially through the application of practices which are compatible with the local climate, topography, slope, soil, as well as the cultural patterns or customary laws of the local population.
Air traffic control	Process or system by which the movements of aircraft are monitored and directed by ground personnel through radio communication with pilots.

Airshed	Refers to geographic areas with similar characteristics pertinent to air quality. These characteristics include factors such as climate, meteorology and topology that affect the interchange and diffusion of pollutants in the air (DENR, 2000).
Airspace management	Process of efficient utilization of aerial space based on actual needs of users, and when possible, avoiding permanent aerial segregation.
Alternative fuels	Any material or substance, aside from the conventional fossil or nuclear forms, which can be used as source of heat or energy through combustion, e.g. biodiesel, bioalcohol (methanol, ethanol, butanol), chemically stored electricity (batteries and fuel cells), hydrogen, non-fossil methane, non-fossil natural gas, vegetable oil, and other biomass sources.
Alternative Learning System	A parallel learning system aimed to provide a viable alternative to the existing formal education instruction. It encompasses both the informal and the non-formal sources of knowledge and skills.
Ancestral domains	Areas belonging to indigenous cultural communities/ indigenous peoples comprising lands, inland waters, coastal areas, and natural resources therein, held under a claim of ownership, occupied or possessed by the community themselves or through their ancestors, continuously to the present except when interrupted by war, force majeure, or displacement by force, deceit, stealth or 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.
Applied research	Original investigation undertaken in order to acquire new knowledge directed primarily towards a specific practical aim or objective.
Apprenticeship	An enterprise-based training undertaken within employment, involving a contract between a trainee and an enterprise on an approved enterprise-based training occupation.
Aquaculture	Fishery operations involving all forms of raising and culturing fish and other fishery species in fresh, brackish and marine water areas.
Area Water Quality Management Fund	A fund established under the Clean Water Act of 2004 for the maintenance and upkeep of the water bodies in a water quality management area. It shall be utilized to grant rewards and incentives for entities whose effluent discharges are better than the water quality criteria of the target classification of the receiving body of water, loans for acquisitions and repairs of facilities to reduce quantity and improve quality of wastewater discharges, and regular maintenance of the water bodies within the management area.

Artificial intelligence	Artificial Intelligence is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.
Arts	The quality, production, expression, or realm, according to aesthetic principles, of what is beautiful, appealing, or of more than ordinary significance.
ASEAN Qualifications Reference Framework	A regional common reference framework that enables comparisons of qualifications across ASEAN member states, and provides a common spine of levels to which all national qualification frameworks can relate, in order to facilitate the intensive movement and exchange of labor within the ASEAN market (ASEAN, 2012).
Automated Hearing	A platform that allows the courts to issue real-time orders and processes such as subpoena, warrants of arrest and hold departure orders.
Balik Scientist Program	A program that encourages highly-trained overseas Filipino scientists and technologists, experts, and professionals to return to the Philippines and share their expertise for the acceleration of the scientific, agro-industrial and economic development of the country.
Bank secrecy	RA1405, whereby all deposits of whatever nature with banks or banking institutions in the Philippines including investments in bonds issued by the government are considered as of an absolutely confidential nature and may not be examined, inquired or looked into by any person, government official, bureau or office, except upon written permission of the depositor, or in cases of impeachment, or upon order of a competent court in cases of bribery or dereliction of duty of public officials, or in cases where the money deposited or invested is the subject matter of the litigation.
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 research	Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.
Basic sanitation	Refers to flush toilet (either owned or shared) and closed pit facilities

Basic services	The provision of basic necessities such as: potable water, power and electricity, and adequate power distribution system; sewerage facilities and an efficient and adequate solid waste disposal system, access to primary roads and transportation facilities; and the provision of health, education, communications, security, recreation, relief and welfare services in accordance with Republic Act No. 7279.
Biodiesel	Renewable and biodegradable diesel fuel extracted from plant oil such as Coconut Methyl Esther (CME).
Bioethanol	A high-octane, water-free alcohol produced from the fermentation of sugar or converted starch.
Biotechnology	Any technological application that uses biological systems, living organisms or derivatives thereof, to make or modify products or processes for specific use.
Borrowing mix program	Part of a country's borrowing strategy. In the case of the Philippines it details the relative share of domestic and foreign sources of financing.
Brain drain	A problem where a country loses its best workers such as skilled workers attracted by better rates of pay and working conditions in other countries.
Breakwater	A structure constructed for the purpose of forming an artificial harbour with a basin to protect from the effects of waves and provide safe berthing for fishing vessels.
Broadband	Online, high-speed access service that provides connection to the internet and othr information services.
Business dynamism	The ways businesses respond to opportunities through measuring: cost required to start a business, time required to start a business, cost of bankruptcy proceedings, strength of insolvency framework, attitudes toward entrepreneurial risk, growth of innovative companies, and willingness to delegate authority.
Business incubation	A unique and highly flexible combination of business development processes, infrastructure and people designed to nurture new and small businesses by helping them to survive and grow through the difficult and vulnerable early stages of development.
Cabotage	Right to transport cargo or passengers via land, sea, or air, between ports of the same country. The right is usually reserved for national flag-carrying vessels.
Capital outlay	Appropriations for the purchase of goods and services, the benefits of which extend beyond the fiscal year and which add to the assets of the government, including investments in the capital stock of government-owned and controlled corporations and their subsidiaries.

Career Executive Service Development Program	A training program of the Development Academy of the Philippines that aims to produce a cadre of government executives that are knowledgeable, skilled and committed to multi-sectoral development and high quality of public service.
Caves	Any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge and which is large enough to permit an individual to enter, whether or not the entrance is located either in private and public land.
Central Evidence Unit	The central repository of all evidence in all criminal cases and requires an overhaul of the evidence handling and management systems simultaneously existing in the different institutions in the justice sector.
Certificate of Land Ownership Award	A document evidencing ownership of the land granted or awarded to the beneficiary by the Department of Agrarian Reform, and contains the restriction and conditions provided for in Republic Act 6657 and other applicable laws (DAR, 1990).
Certification rate	The percentage of examinees who passed the national competency assessment for or within a given period.
Child development service providers	The various professionals, paraprofessionals, and volunteers (e.g., day care workers, child development teachers, teacher-aides, rural health midwives, social workers, community health workers, barangay nutrition scholars, parent effectiveness service volunteers, and family day care providers) who are directly responsible for the care and education of young children from age zero to four years (RA 10410, 2013).
Children	Persons below 18 years of age or those over but are unable to fully take care of themselves or protect themselves from abuse, neglect, cruelty, exploitation or discrimination because of a physical or mental disability or condition (RA 7610, 1992).
Citizens' Satisfaction Index System	This is a set of data tools designed to collect and generate relevant citizens' feedback on local governments' service delivery performance and on the citizens' general satisfaction. The system conceptualizes the citizen as the center of local government performance. It is currently implemented by the Department of the Interior and Local Government.
Civil justice	As a factor of the Rule of Law Index, this measures whether civil justice systems are accessible and affordable, free of discrimination, corruption, and improper influence by public officials. It also measures the accessibility, impartiality, and effectiveness of alternative dispute resolution mechanisms.
Climate change	Refers to changes in climatic systems as measured by mean temperatures or variability of its properties, and persists for an extended period, typically decades or longer, whether due to natural variability or as a result of human activity (RA 9729, 2009).

Climate change adaptation	The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (RA 9729, 2009).
Climate projection	The calculated response of the climate system to emissions or concentration scenarios of greenhouse gases and aerosols, or radiative forcing scenarios, often based on simulations by climate models. Climate projections are distinguished from climate predictions, in that the former critically depend on the emissions/concentration/radiative forcing scenario used, and therefore on highly uncertain assumptions of future socio-economic and technological development. (IPCC, 2007)
Climate variability	Refers to the variations in the average state and in other statistics of the climate on all temporal and spatial scales beyond that of individual weather events (RA 9729).
Closed fishing season	The period during which the taking of specified fishery species by a specified fishing gear is prohibited in a specified area or areas in Philippine waters (RA 8550, 1998).
Coastal area	A band of dry land and adjacent ocean space, including submerged land, in which terrestrial processes affect oceanic processes and uses and vice versa. Its geographic extent may include areas within a landmark limit of one kilometer from the shoreline at high tide to include mangrove swamps, brackish water ponds, nipa swamps, estuarine rivers, sandy beaches and other area within a seaward limit of 200 meters isobath to include coral reefs, algal flats, sea grass, beds, and other soft bottom areas.
Cohort survival rate	The percentage of enrollees at the beginning grade or year in a given school year who reached the final grade or year of the elementary level.
Collective bargaining	The process of negotiations between employers and a group of employees aimed at reaching agreements that regulate working conditions. The interests of the employees are commonly presented by representatives of a trade union. A collective bargaining agreement is the contract resulting from the negotiations.
Co-loading	Agreements between two or more international or domestic sea carriers whereby a sea carrier bound for a specified destination agrees to load, transport, and unload the container van or cargo of another carrier bound for the same destination.
Commercial Court	A Special Court designated to exclusively hear and decide all disputes arising from corporate rehabilitation, insolvency, liquidation, and competition cases.
Commercial fishing	The catching of fish with the use of fishing boats with a capacity of more than three gross tons for trade, business or profit beyond subsistence or sports fishing.

Commercialization	The process of deriving income or profit from a technology, such as the creation of a spin-off company, or through licensing, or the sale of the technology and/or Intellectual Property Rights.
Communal irrigation system	A type of irrigation system covering an area of 1,000 hectares or less, which is constructed by the National Irrigation Administration with the participation of the local irrigators' associations. Its operation and maintenance is turned over to the IAs upon project completion. (NIA, n.d.)
Community Mortgage Program	A mortgage financing program that assists legally organized associations of informal settler families to own the lots they occupy or their choice of relocation, providing them security of tenure and eventually improving their communities.
Community-based Forest Management Agreement	Partnership between the government and the local community, represented by people's organization, as forest managers, which has a term of 25 years, renewable for another 25 years.
Competency	The knowledge, skills, attitudes, and values necessary to perform effectively and efficiently a given occupational task required in the workplace.
Competency Assessment	An evaluation process that seeks to determine whether the graduate or worker can perform to the standards expected in the workplace based on the defined competency standards.
Completion rate	The percentage of first grade/year entrants in a level of education who complete the required number of years of study.
Comprehensive Land Use Plan	A document accompanied by maps and similar illustrations, which represent the community-deserved pattern of population distribution and proposal for future allocation of land for the various land use activities, in accordance with the social and economic objectives of the people. It identifies location, character and extent of the area's land resources to be used for different purposes and includes the process and the criteria employed in the determination of the land's use.
Conflict	Affected areas communities where: there are actual armed encounters between the government forces and political armed groups; where political armed groups dominate the state of affairs of the community; or, where other forms of violent conflicts exist.
Conflict sensitivity	Means ensuring that development initiatives or undertakings do not have any negative impact or do not escalate tensions between parties in conflict
Conflict-affected area	Areas where the local and peripheral population is heavily impacted by the infighting of armed groups.

Contact Center ng Bayan	Feedback mechanism designated as the government's main helpdesk where citizens can request for information and assistance on government frontline service procedures, and report commendations, appreciation, complaints, and feedback. This was established by the Civil Service Commission and the Information and Communications Technology Office-National Computer Center in support of the implementation of Republic Act 9485.
Contingent liabilities	Obligations that may or may not come due, depending on whether particular events occur. The probability of their occurrence may be exogenous to government policies (for example, if they are related to natural disasters) or endogenous (for example, if government programs create moral hazard). They are obligations that do not arise unless particular discrete events occur in the future
Contraceptive prevalence rate	The percentage of currently married women 15-49 years of age reporting current use of any method of contraception.
Control of Corruption	This is an aggregate indicator for the quality of governance that measures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by private interests (World Bank, 2007).
Convergence program	The interface between and among various telephony, radio, video, broadcasting and multimedia infrastructure, devices and services, enabling users or subscribers thereof to communicate with one another.
Convergence program	The complementation of agency initiatives within a defined area under a common intervention strategy to maximize impact.
Cooperative	An autonomous and duly registered association of persons, with a common bond of interest, who have voluntarily joined together to achieve their social, economic, and cultural needs and aspirations by making equitable contributions to the capital required, patronizing their products and services and accepting a fair share of the risks and benefits of the undertaking in accordance with universally accepted cooperative principles (RA 9520, 2008).
Coral reef	A natural aggregation of coral skeleton, with or without living coral polyps, occurring in intertidal and subtidal marine waters (RA 8550, 1998).
Corruption Perceptions Index	Measures the perceived level of public sector corruption in 178 countries and territories based on 13 expert and business surveys. The score ranges from 0-100, where 0 means that a country is perceived as highly corrupt and a 100 means that a country is perceived as very clean. (Transparency International, 1995)

Crime solution efficiency	The percentage of solved cases out of the total number of crime incidents handled by law enforcement agencies for a given period of time
Criminal justice	As a factor of the Rule of Law Index, this measures whether the criminal investigation, adjudication, and correctional systems are effective, and whether the criminal justice system is impartial, free of corruption, free of improper influence, and protective of due process and the rights of the accused.
Criminal Justice Information Exchange	This will allow all justice sector agencies the flexibility to develop their own information and communications technology systems according to their needs and contemporaneously provide the framework that will generate the "commonalities" for easy interchange of crime-related data.
Critical habitat	Sites outside Protected Areas System under RA 7586 that are known habitats of threatened species and designated as such based on scientific data, taking into consideration species and endemicity and richness, presence of manmade pressures and threats.
Critical watershed	A drainage area of a river system supporting existing and proposed hydroelectric power, irrigation works, or existing water facilities needing immediate protection and rehabilitation to minimize erosion and improve water yield.
Cropping intensity	The number of times a crop is planted per year in a given agricultural area. It is the ratio of effective crop area harvested to the physical area (PhilFSIS, n.d.).
Cultural Workers	Persons who work in the cultural industries, defined as a sector "whose principal purpose is the production or reproduction, promotion, distribution, or commercialisation of goods, services and activities of a cultural, artistic or heritage-related nature" (UNESCO, 2016).
Culture	Set of distinctive spiritual, material, intellectual and emotional features of society or a social group, that encompasses, not only art and literature, but lifestyles, ways of living together, value system, traditions and beliefs (UNESCO, 2001).
Culture-sensitive	Refers to the quality of being compatible and appropriate to the culture, beliefs, customs and traditions, indigenous systems and practices of indigenous cultural communities or indigenous peoples (R.A. 8371, 1997).
Cybercrime	Crimes committed with the use of a computer or the internet.
Cybercrime Court	A court designated to exclusively hear and decide all disputes arising from handling of cybercrime cases.
Cybersecurity	Refers to the collection of tools, policies, risk management approaches, actions, and technologies that can be used to protect the cyber environment and user's assets.

Debt consolidation	Reduction in frequency of debt issuance in favor of bigger volumes to provide liquidity, avoid market fragmentation and enhance market activity.
Debt portfolio	A country's stock of debt.
Debt-for-Nature Swap	A form of a voluntary transaction in which an amount of hard-currency debt owed by a developing country government is cancelled or reduced by a creditor, in exchange for financial commitments to environmental conservation.
Decommissioning	General term for a formal process to remove something from an active status
Dependable capacity	The load-carrying ability of a power plant during a specific time interval and period. It depends on several factors, such as the amount of available energy, demand for energy, capability of the system to deliver the demand at a given moment, and facilities capable of handling increased demand as needed.
Developmental expenditures	Or discretionary expenditures. They are the more productive component of the national budget intended for the operations of line agencies to implement their specific programs and projects. They can be changed or adjusted based on factors such as government spending priorities, available fiscal space, and absorptive capacity of the agency.
Disaster	A serious disruption of the functioning of a community or a society involving widespread human, material, economic, or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (RA 10121, 2010).
Disaster risk	The potential disaster loss (i.e., lives, health status, livelihoods, assets, services) which could occur to a particular community or a society over some specified future time period (UNISDR, 2009).
Disaster risk reduction	The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including the reduction of exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR, 2007; RA 10121, 2010).
Disaster risk reduction and management	Refers to the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improve coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster (RA 10174, 2012).

Diwata 1	The Philippines' first microsatellite, built to undertake scientific earth observation missions related to weather observation, environmental monitoring and disaster risk management. It is a 50-kg satellite equipped with four optical payloads in the visible to near infrared region that enable the aforementioned science missions.
Early childhood care and development	The full range of health, nutrition, early education, and social services necessary to promote the optimum growth and development of children age zero to four years.
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 (RA 10121, 2010).
Eco-efficient water infrastructure	Physical and nonphysical means of achieving optimal water utilization.
Economic housing	Housing programs and projects for moderately low and average income families with lower interest rates and longer amortization periods among other benefits, following the standards of relevant laws, and price ceilings as determined by government.
Economic services	Enhancement of industrial/agricultural production capacities, covering, among others, the development of natural resources, promotion of trade and industry, and the setting up of infrastructure and utilities.
Economic zone	Selected areas with highly developed or which have the potential to be developed into agri-industrial, industrial, tourist, recreational, commercial, banking, investment and financial centers whose metes and bounds are fixed or delimited by Presidential Proclamations (PEZA, 1995).
Ecosystems approach to fisheries management	An approach that strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic, and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries (FAO, 2014).
Ecotourism	A form of tourism that can sustainably use natural and cultural resources while providing employment opportunities for local communities.
eCourts	This a computer-based system designed to enable trial judges and court personnel to organize, plan and control the flow of cases from filing to resolution and enforcement. This system involves the electronic capture, storage, management and retrieval of essential case data to aid the judges and court case processors in more efficiently handling the volume of cases that flood the judiciary.

El Niño	A climate pattern that describes the unusual warming of surface waters in the eastern tropical Pacific Ocean that causes extreme dry weather or drought. It is the warm phase of a larger phenomenon called the El Niño-Southern Oscillation.
Electric cooperatives	An organization or corporation authorized to provide electric services pursuant to Presidential Decree No. 269, as amended, and Republic Act No. 6938 within the framework of the national rural electrification plan.
Encounter	An armed action involving exchange of fire between government security forces (military) and insurgent forces, which may or may not result in casualties on either side.
Energy intensity	Calculated as units of energy per unit of gross domestic product (i.e., million tons oil equivalent per GDP in billion pesos).
Energy transmission	The conveyance of electricity through the high voltage backbone system.
Enhanced Justice on Wheels	A program to expedite litigation of cases by housing a small courtroom, representing first and second level courts, in a vehicle.
Enterprise Information System Plan	A road map to detailing the optimal use of information and communication technologies to address docket congestion and delay in the Judiciary Case Management System.
Enterprise-based training	A program of learning which takes place in the enterprises or in the workplace.
Environmental Performance Index	Global metrics for the environment conducted every two years, which ranks countries' performance on high-priority environmental issues in two areas: protection of human health and protection of ecosystems. The 2016 EPI Framework includes issues related to health impacts, air quality, water and sanitation, water resources, agriculture, forests, fisheries, biodiversity and habitat, and climate and energy.
Environmentally-sustainable transport	Transportation development that meets the needs of the present without preventing future generations from meeting their needs
eSubpoena	An automated notification system which enables the courts to send subpoena via electronic mail directly to the police witnesses and the units where they are assigned.
Ethnolinguistic groups	Group of people who share the same language and cultural practices.
eWarrant System	An electronic database system of court-issued warrants of arrest that police officers may access from any point in the country (Yap, 2012).

Expanded Specialized Science Secondary Education Scholarship	A scholarship program implemented by the DOST-Philippine Science High School System to provide scholarship for the Specialized Science Secondary Education nationwide. The scholarship program increases the competitiveness of Filipinos in Science, Technology, Engineering and Mathematics courses by developing the skills, knowledge and attitudes of young scholars with high aptitude in science and mathematics to join the critical mass of S&T workers in the country.
Farm-to-market roads	Roads linking the agriculture and fisheries production sites, coastal landing points and post-harvest facilities to the market and arterial roads and highways.
Feed-in tariff	A policy mechanism that obligates electric power industry participants to source electricity from renewable energy generation at a guaranteed fixed rate per kilowatt-hour for a given period of time.
Financial inclusion	A state where there is effective access to a wide range of financial products. The term is synonymous to inclusive financial system.
Financial Stability Coordination Council	Voluntary inter-agency council whose key objective is to identify, manage and mitigate the buildup of systemic risks. This is consistent with the overall prudential objective of financial stability. It is a collaborative effort of five government agencies, namely, Bangko Sentral ng Pilipinas (BSP), Department of Finance (DOF), Insurance commission (IC), Philippine Deposit Insurance Commission (PDIC), and Securities and Exchange Commission (SEC).
Firmed-up service area	Functional space of an irrigation system.
Fiscal position	Either the shortfall/deficiency (deficit) or excess (surplus) of revenues over expenditures of the government.
Fiscal risk	The possibility of deviations of fiscal outcomes from what was expected at the time of the budget or other forecast.
Fiscal space	The available funding that the government could use for its priority programs. Fiscal space is computed as the difference of projected obligations ceilings (after considering projected revenues and deficit targets) and forward estimates of the cost of ongoing programs.
Fisherfolk	People who are directly engaged in catching, culturing, and processing of fishery and/or aquatic resources.
Folk	Refers to expressions of distinctiveness and artistic quality created to serve a decorative and/or utilitarian or sociocultural functions of traditional folk artists commonly known for such works (RA 7355, 1992).
Food security	A condition where 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 (FAO, 2002).

Foreign direct investments	Investments made by a resident entity in one economy to another economy to aquire a lasting intesrest and have a significant influence in the management over the enterprise.
Foreign investment negative list	Outlines the investment areas and/or activities that shall be reserved to Philippine nationals.
Forest cover	Natural and man-made forests, including forests within wetlands and built-up areas.
Forest land	Includes public forest, permanent forest or forest reserves, and forest reservations.
Forward and backward linkages	The channels through which products, materials, information, and money flow from suppliers to the firms (backward) or customers (forward). Backward and forward linkages are also descriptive measures of the economic interdependence of industries.
Freedom of Information	A government mechanism that allows Filipino citizens to request any information about government transactions and operations, provided that it shall not put into jeopardy privacy and matters of national security. This mechanism for the Executive Branch is enabled via Executive Order No. 2, s. 2016 in response to the call for transparency and full public disclosure.
Fuel marking	A monitoring mechanism to curtail fuel smuggling activities through the use of official fuel markers based on, among others, covert molecular recognition technology.
Full Disclosure Policy	A policy that mandates local government units to post plans, budgets, and full utilization reports to enable the public to view, download, and print these financial documents to allow their constituents to understand how their local governments budget and spend for public services.
Functional literacy	A significantly higher level of literacy, which includes not only reading and writing skills but also numerical skills. The skills must be sufficiently advanced to enable the individual to participate fully and efficiently in activities commonly occurring that require a reasonable capability of communicating by written language.
Fundamental rights	As a factor of the Rule of Law Index, this measures the protection of fundamental human rights, including effective enforcement of laws that ensure equal protection, the right to life and security of the person, due process of law and the rights of the accused, freedom of opinion and expression, freedom of belief and religion, the right to privacy, freedom of assembly and association, and fundamental labor rights, including the right to collective bargaining, the prohibition of forced and child labor, and the elimination of discrimination.

G20	"Group of Twenty", which refers to an international forum for governments and central bank governors founded in 1999. The 20 major economies belonging to this group are: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States, along with the European Union.
Gender and development	The development perspective and process that "seeks to achieve gender equality as a fundamental value that should be reflected in development choices; seeks to transform society's social, economic, and political structures and questions the validity of the gender roles they ascribed to women and men; contends that women are active agents of development and not just passive recipients of development assistance; and stresses the need of women to organize themselves and participate in political processes to strengthen their legal rights". (RA 9710, 2009)
General aviation	Operations which are not conducted by any airlines, chater operators, and military. Such have no scheduled service and have less than 2,500 annual boarding passengers.
Genetic resource	Genetic material with actual or potential value.
Geotagging	The process of adding geographical information to various media in the form of metadata. The data usually consist of coordinates like latitude and longitude, but may even include bearing, altitude, distance and place names.
Global Competitiveness Index	A set of institutions, policies, and factors that determine the level of productivity of a country, conditions of public institutions, and technical conditions (WEF, 2013). This was created by the World Economic Forum and is considered as an accepted tool for evaluating a country's potential for growth (Reut Institute, 2007).
Good Agricultural Practices	Practices that address environmental, economic and social sustainability for on-farm processes, and result in safe and quality food and non-food agricultural products (FAO, 2003).
Government effectiveness	This is an indicator that measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (Millennium Challenge Corporation, n. d.).
Government Integrated Financial Management Information System	An integrated information technology solution that will improve efficiency in the use of public resources through real-time online accounting, monitoring and control of public funds, an improved cash management system, and a more systematic recording of all real and contingent liabilities of government.

Government Quality Management Program	This program aims to institutionalize the adoption of ISO 9001:2000 Quality Management Systems in all agencies of government in order to enhance public service (Executive Order No. 605, s. 2006).
Greater Capital Region	Consists of National Capital Region, Regions III, and IV-A
Green Building Code	Set of guidelines adherent to the National Building Code that pertains to improving efficiency of buildings in terms of energy and resource utilization, while reducing its impact to the environment.
Green procurement	The purchase of environmentally-friendly products and services, the selection of contractors, and the setting of environmental requirements in a contract.
Greenhouse gases	Components in the atmosphere that contribute to greenhouse effect including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
Grid	The high voltage backbone system of interconnected transmission lines, substations, and related facilities.
Gross domestic product	The value of all goods and services produced domestically. It is the sum of gross value added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the values of their outputs).
Gross regional domestic product	The aggregate of gross value added of all resident producer units in the region. This includes regional estimates on the three major sectors including their sub-sectors namely: 1) Agriculture, Fishery, and Forestry Sector; 2) Industry Sector (Mining and Quarrying, Manufacturing, Construction, Electricity, Water); 3) Service Sector (Transport, Communication, Storage, Trade, Finance, Ownership of Dwellings and Real Estate, Private or Government Services). (PSA, n.d.)
Gross value-added	The total payment to factors of production, namely: wages, interest, profits, rents, including capital consumption allowance and indirect taxes. It is estimated by deducting from gross value of output the sum of non-factor cost such as raw materials and supplies, containers and packing materials, fuel, advertising and other non-industrial overhead cost.
Harmonized National R&D Agenda	A blueprint of the priority R&D areas that will be pursued by the country to address societal needs and achieve inclusive socio-economic development. A product of comprehensive and widespread consultation with various stakeholders, the agenda aims to provide direction on the government-funded R&D programs and projects; provide an important step in enhancing the effective allocation and efficient use of public investments in R&D; and avoid duplication of R&D pursuits and promote complementation among government research institutions.

Hazard	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (UNISDR, 2007).
Hazardous waste	Used or discarded substances or materials that are without any safe commercial, industrial, agricultural or economic uses, and which pose substantial or potential threats to public health and/or the environment
Health care waste	Discarded materials from hospital operations and processes that may harbor or transmit pathogenic organisms.
Heritage	Includes artefacts, monuments, a group of buildings and sites, that have a diversity of values including symbolic, historic, artistics, aesthetic, ethnological or anthropological, scientific and social significance (UNESCO, 1972).
High density housing	A housing strategy where a significant number of informal settler families are accommodated in a multi-storey building, either in an in-city or near-city relocation or land sharing agreement. It can also refer to the number of families per hectare.
Higher education	The stage of formal education requiring secondary education covering the programs on all courses of study leading to a bachelor's degree and all degree courses of study beyond bachelor's degree level.
High-value crops	Non-traditional agricultural and horticultural commodities that include coffee, cacao, fruits, root crops, vegetables, spices and condiments, cutflowers, and ornamental plants.
Home Development Mutual Fund	A national savings program that aims to provide affordable shelter financing for the Filipino worker. This fund is more popularly known as the Pag-IBIG (Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industria at Gobyerno) Fund.
Housing needs	The number of conventional dwellings or other suitable living quarters that need to be constructed or repaired in order to bring housing conditions, in a particular point in time, up to nationally adopted standards, plus the number that need to be constructed, repaired or maintained to ensure that housing conditions remain at the standard level over a stated period of time. Composed of accumulated, future, and recurrent structure demands, with allowance for inventory losses and increase in households
Human rights-based approach	A conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights (UN, n.d.)

Human trafficking	The criminal act of recruitment, transportation, transfer, harboring, or receipt of persons within or across national borders by threat or use of force, coercion, abduction, fraud, deception, abuse of power or vulnerability, or giving payments or benefits to a person in control of the victim for the purpose of exploitation, which includes, at a minimum, exploiting the prostitution of others, other forms of sexual exploitation, forced labor or services, slavery or similar practices, and the removal of organs.
Idle lands	Land that was cultivated but is now in a state of disuse or is abandoned. This may also refer to non-agricultural lands in urban and urbanizable areas on which no improvements have been made by the owner, as certified by the city, municipal, or provincial assessor (RA 7279, 1992).
In-city resettlement	A relocation site within the jurisdiction of the local government unit where the informal settler families are living (House Joint Resolution No. 0003, n.d.).
Inclusive growth	Growth that is rapid enough to matter, given the country's large population, geographical differences, and social complexity. It is sustained growth that creates jobs, draws the vast majority into the economic and social mainstream, and continuously reduces mass poverty.
Index of Economic Freedom	An evaluation of countries in four broad policy areas that affect economic freedom: rule of law, limited government, regulatory efficiency, and open markets.
Indigenous community conserved areas	Geographic locations that cover the significant biodiversity, ecological services, and cultural values voluntarily conserved by indigenous communities, primarily for their subsistence and other cultural purposes.
Indigenous cultural communities	A group of people or homogenous societies identified by self-ascription and ascription by other, 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 customs, tradition, and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and culture, become historically differentiated from the majority of Filipinos (RA 8371, 1997).
Indigenous Peoples	Peoples who are regarded as indigenous on account of their descent from the populations which inhabited the country, at the time of conquest or colonization or at the time of inroads of non-indigenous religions and cultures or the establishment of present state boundaries who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside their ancestral domains (RA 8371, 1997).

Indigent senior citizen	Any elderly who is frail, sickly or with disability, without pension or permanent source of income, compensation or financial assistance from relatives to finance basic needs, as determined by the Department of Social Welfare and Development in consultation with the National Coordinating and Monitoring Board (RA 9994, 2010).
Industrial design	The ornamental or aesthetic aspect of an article. The design may consist of three-dimensional features, such as the shape or surface of an article, or two-dimensional features, such as patterns, lines or color. It is applied to a wide variety of products of industry and handicraft: from technical and medical instruments to watches, jewelry, and other luxury items; from housewares and electrical appliances to vehicles; from textile designs to leisure goods. To be protected under most national laws, an industrial design must be non-functional. This means that an industrial design is primarily of an aesthetic nature and any technical features of the article to which it is applied are not protected.
Inflation rate	The annual rate of change or year-on-year change in Consumer Price Index.
Inflation targeting	A monetary policy regime that focuses on achieving price stability as its ultimate objective. The central bank announces an explicit inflation target and promises to achieve it over a given time period.
Informal settler families	Households with no security of tenure vis-à-vis the land or dwellings they inhabit. Their neighbourhoods usually lack, or are cut off from, basic services and city infrastructure, and their housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas.
Information and communication technology	An umbrella term that covers all technical means for processing and communicating information. It defines a broad range of technologies, including methods for communication (communication protocols, transmission techniques, communications equipment, media communication), as well as techniques for storing and processing information (computing, data storage, etc.).
Infrastructure Court	A court designated to exclusively hear and decide all disputes arising from construction or infrastructure contracts, whether government- or private-initiated or -implemented.
Installed capacity	Fullest operational capability of an equipment or facility, usually expressed in megawatts (MW).

Integrated Coastal Management	A dynamic process of planning and management involving stakeholders, and requiring the analysis of the environmental and socioeconomic implications of development, the ecosystem processes, and the interrelationships among land-based and marine-related activities across jurisdictions (Executive Order No. 533).
Integrated Forest Management Agreement	A production-sharing contract entered into by and between the DENR and a qualified applicant where the DENR grants to the latter the exclusive right to develop, manage, protect, and utilize a specified area of forestland and forest resource 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, and under which both parties share in its produce.
Integrated Nutrient Management	An approach that uses all natural and man-made sources of plant nutrients to increase crop productivity without sacrificing soil productivity of future generations
Integrated water resource management	The process that promotes the coordinated development and management of water, land, and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.
Intellectual property	The intangible assets resulting from the creative work of an individual or organization. IP also refers to creations of the mind, such as inventions, literary and artistic works, and symbols, names, images and designs used in commerce. IP can also refer to future tangible and/or intangible assets that may be recognized as intellectual property.
Interchange	A road junction designed on several levels so that traffic streams do not intersect.
Intermodal logistics system	Logistical connection between two or more transport modes with a single rate and sharing similar handling and movement characteristics.
Interoperability	The ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged.
Irrigation development	The ratio of the area that was developed altogether by the NIA, other government agencies and private sectors as against the potential irrigable area (NIA, n.d.).
Judiciary Case Management System	A reform project of the Judiciary to decongest dockets and help solve delays in case management and resolution through the use of information technology.

Justice Hub	An infrastructure or a facility, optimally one building, which will house the courts, the prosecutors, the public attorneys, the police, and a jail with classified housing for surrendered or apprehended drug offenders, within a given local government unit, which may be a region, a province, a city or even a municipality. The Justice Hub aims to ensure speedy, efficient and accessible delivery of justice, a one-stop venue for criminal justice.
Justice Sector Coordinating Council	An inter-agency body composed of senior representatives from 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 Justice Sector Coordinating Council.
Key biodiversity areas	They are places of international importance for the conservation of biodiversity through protected areas and other governance mechanisms. They are identified nationally using simple standardized criteria based on their importance in maintaining species population. As the building blocks for desigining the ecosystem approach ans maintaining ecological networks, these sites are the starting point for conservation planning at landscape level.
Kilusang Pagbabago	A grassroots-based movement envisioned to be the vanguard of the current administration in ensuring that the delivery of government programs trickles down to the benefit of the masses.
Labor force	This refers to population 15 years old and over who are either employed or unemployed.
Labor market information	Data that provides timely relevant and accurate signals on the current labor market such as in-demand jobs and skills shortages by developing client-specific information, education and communication materials.
Labor market programs	Measures aimed at enhancing employment opportunities and protection of the rights and welfare of workers. Employment enhancing measures include trade policies and skills development and training. Labor protection includes compliance with labor standards such as minimum wages or health and safety in the workplace.
Labor productivity	Labor productivity in agriculture, forestry and fishery pertains to the value of agricultural output per employed person in agriculture, forestry and fisheries.

Ladderized education	Harmonization of all education and training mechanisms that allow students and workers to seamlessly progress between technical-vocational and higher education programs, or vice-versa (RA 10647, 2014).
Land degradation	The reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns (UNCCD, 1994).
Large-scale irrigation system	Type of irrigation systems constructed by National Irrigation Authority that are usually covering more than 1,000 hectares. These are jointly operated and maintained by National Irrigation Authority and the farmer beneficiaries through their irrigators' associations. (NIA, n.d.)
Learnership	A training program that combines theory with relevant practice on-the-job under the supervision of an experienced or qualified person.
Legal aid	Includes legal advice, assistance, and representation for persons detained, arrested or imprisoned, suspected or accused of, or charged with a criminal offence, and for victims and witnesses in the criminal justice process that is provided at no cost for those without sufficient means or when the interests of justice so require.
Lifelong learning	All learning activities undertaken throughout life for the development of competencies and qualifications. Adult learning and education, technical-vocational education or training, and literacy are all significant components of the lifelong learning process.
Local housing board	A local special body devoted to addressing shelter concerns in the formulation, development and implementation of a comprehensive and integrated housing and land development program of the local government unit.
Local shelter plan	A document that defines the present and projected needs, gaps, issues on local housing vis-à-vis the projected population, resources required, affordability analysis, goals and objectives, strategies, interventions and implementation plan of the local housing program.
Logistics hub	Integrated centers for transhipment, storage, collection, and distribution of goods
Low-cost housing	Housing units that are affordable to low-income earners with loan amounts ranging from ₱450,000 to ₱3 million, which is subject to review and adjustment at least every two years (HUDCC, 2013; BSP 2011; RA 8763, 2000).

Low-cost housing	Refers to housing packages with loan ceilings ranging from above ₱400,000 up to ₱3,000,000 or in such other amounts which HUDCC may prescribe in the future.
Low-income households	Those belonging to the bottom 30 percent income population (first to third income deciles).
Major river basin	Basin with area of at last 990 square kilometers.
Managed access areas	A fisheries management approach that combines spatial planning and community co-management to achieve the ecological and socioeconomic goals of the coastal and marine and fisheries sectors.
Mangroves	A community of intertidal plants including all species of trees, shrubs, vines and herbs found on coasts, swamps, or border of swamps (RA8550, 1998).
Marginalized	Groups in society who, for reasons of poverty, geographical inaccessibility, culture, language, religion, age, gender, migrant status or other disadvantage, have not benefited from health, education, employment and other opportunities, and who are relegated to the sidelines of political persuasion, social negotiation, and economic bargaining (NEDA-SDC, 2007).
Marine protected areas	A defined area of the sea established and set aside by law, administrative regulation, or any other effective means in order to conserve and protect a part of or an entire enclosed environment through the establishment of management guidelines. It is considered a generic term that includes all declared areas governed by specific rules or guidelines in order to protect and manage activities within an enclosed area (Republic Act 10654).
Market size	Captures the following: real market potential, cost required to start a business, time required to start a business, cost of bankruptcy proceedings, strength of insolvency framework, attitudes toward entrepreneurial risk, growth of innovative companies, and willingness to delegate authority.
Maternal mortality ratio	The number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 livebirths.
Medium-Term Expenditure Program	A strategic and policy-based program that outlines the expenditure priorities of line agencies over a three-year period. It strengthens the planning-budgeting linkage by ensuring that these priority programs and projects are consistent with the PDP and mapping out the costs of these expenditure priorities as an input to the budgeting exercise in consideration of the extent of resources available.
Merger	The joining of two or more entities into an existing entity or to form a new entity, including joint ventures.

Metrology	Provides measurement standards that are internationally traceable and consistent with the Metre Convention, which promotes the consistent modernization of units and standards of measurement in the areas of environment, public health and safety, communications, transportation, sound intensity level, and other emerging technologies. The standardization of units and standards is encouraged to adapt to the current national and global developments including compliance with international standards (Aquino, 2016).
Micro, small, and medium enterprises	Any business activity or enterprise that has assets not exceeding ₱100 million and employment size less than 200, regardless of the type of ownership.
Microfinance	A broad range of financial services such as deposits, loans, payment services, money transfers and insurance products to the poor and low-income households and their microenterprises. By definition, it is important to note that microfinance is not a subsidized credit, not a dole-out, not salary or consumption loans, and not a cure-all for poverty.
Micro-insurance	Specific insurance, insurance-like and other similar products and services that meet the needs of the low-income sector for risk protection and relief against distress, misfortune and other contingent events.
Minimum wage	The lowest wage rate fixed by law.
Missionary electrification	Provision of electricty service in unviable areas.
Mitigation	The lessening or limitation of the adverse impacts of hazards and related disasters (UNISDR, 2007).
Multinational corporations	A parent corporation based in one country called the home country, with a multinational group of subsidiary corporations, organized under and subject to the laws of different countries, called the host countries.
Municipal fisherfolk	Persons who are directly or indirectly engaged in municipal fishing and other related fishing activities (Republic Act 8550).
Municipal waters	Include not only streams, lakes, inland bodies of water and tidal waters within the municipality which are not included within the protected areas as defined under Republic Act No. 7586, public forest, timber lands, forest reserves or fishery reserves, but also marine waters included between two lines drawn perpendicular to the general coastline from points where the boundary lines of the municipality touch the sea at low tide and a third line parallel with the general coastline including offshore inlands and 15 kilometers from such coastline. Where two municipalities are so situated on opposite shores that there is less than 30 kilometers of marine waters between them, the third line shall be equally distant from opposite shore of the respective municipalities (Republic Act 8550).

Mutual recognition agreements	Framework arrangements established in support of liberalizing and facilitating the mobility of professionals and skilled labor among ASEAN member states, particularly on the equivalencies and competency standards for professionals and labor that would enable them to practice their professions and trades within the ASEAN region (ASEAN, n.d.).
Nanotechnology	Nanotechnology is the study and application of extremely small things and can be used across all the other science fields, such as chemistry, biology, physics, materials science, and engineering.
National ID System	An official identification system for all citizens of the Philippines through the issuance of a Filipino identification card to convert and consolidate all existing government-initiated identification systems into one integrated and efficient identification system.
National Integrated Protected Areas System	The classification and administration of all designated protected areas to maintain essential ecological processes and life-support systems, to preserve genetic diversity, to ensure sustainable use of resources found therein, and to maintain their natural conditions to the greatest extent possible.
National Justice Information System	A program 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	An institutional framework that establishes and implements the practice of standardization, including conformity assessment services, metrology, and accreditation (Aquino, 2016).
National Transport Policy	A draft policy framework that intends the achievement of Transport Vision 1 by setting forth policies to guide all entities involved in the transportation sector. The proposed policies will aim for the maximization of transport infrastructure investments, creation of new economic growth centers, improvement of tourism and agro-industry competitiveness, and promotion of good governance.
National Water Quality Management Fund	Established under the Clean Water Act of 2004, which is used to finance the following: (a) containment and clean-up operations of the government in water pollution cases; (b) guarantee restoration of ecosystems and rehabilitation of affected areas; (c) support research, enforcement and monitoring activities; (d) provide technical assistance to the implementing agencies; (e) grant rewards and incentives; (f) support information and educational campaign; and (g) such other disbursements made solely for the prevention, control or abatement of water pollution and management and administration of the management areas in the amounts authorized by the Department of Environment and Natural Resources.

Nationwide Operational Assessment of Hazards	A government program which undertakes disaster science research and development, advances the use of cutting edge technologies and recommends innovative information services in the government's disaster prevention and mitigation efforts.
Natural gas	Consists primarily of methane, typically with 0 to 20 percent higher hydrocarbon concentration, and is an important fuel source and major feedstock for fertilizers.
Natural hazard	Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (UNISDR, 2007).
Net enrolment rate or participation rate	The ratio of the enrolment for the age group corresponding to the official school age in the elementary/secondary level to the population of the same age group in a given year.
Non-communicable disease	Also known as chronic diseases. These are not passed from person to person. They are of long duration and generally slow progression. The four main types of non-communicable diseases are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.
Non-motorized transport	Also known as active transportation or human-powered transportation. It includes walking, bicycling, and other small-wheeled transportation modalities.
Normalization process	Defined in the agreements as a process where conflict-affected communities can "return to conditions where they can achieve their desired quality of life, which includes the pursuit of sustainable livelihoods and political participation within a peaceful deliberative society where long-held traditions and values continue to be honored.
Nuclear science	The study of the atomic world. In nuclear science, the word 'nucleus' means 'of or relating to or constituting the nucleus of an atom. Atoms are the fundamental constituents of everything around, and people are entirely composed of them. Nuclear science is also crucial to understanding our universe, our world and ourselves at the atomic level.
Off-city resettlement	A relocation site developed outside and not adjacent to the local government unit where the affected informal settler families have their settlements (House Joint Resolution No. 0003, n.d.).
Off-grid areas	Localities not connected to the wires and related facilities of the On-Grid System of the Philippines.
Office of Participatory Governance	An office to promote and ensure the direct participation of stakeholders in crafting of policies and programs to address concerns at the grassroots level.

One Expert	An interactive web-based nationwide pool of science and technology experts intended to provide technical advice and consultancy services to Filipinos anywhere they are in the Philippines. It is intended to improve access to experts and technologies particularly by people living outside of the major centers where most research and technical institutions are located.
One Lab Harmonized Laboratory Testing Services	An information technology based project that broadens public access to testing services initially of all DOST laboratories, at a single touch point through a platform that allows effective seamless handling of samples from receiving, referral, transport and analysis, to the prompt delivery of results. The platform is expected to link other government and private laboratories in the future.
One Store	An e-commerce web application that operates nationwide, which provides consumers a choice of a wide range of products and retailers with direct access to a large customer base in the Philippines.
Open Budget Index	A country's score according to the clarity, scope and availability of documents on public spending that shows the tendency to encourage or avoid wasteful and corrupt use of public funds.
Open data	Information that can be freely used, reused and redistributed by anyone—subject only, at most, to the requirement to attribute and share.
Open Government Partnership	A multilateral initiative that aims to secure concrete commitments from governments to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance.
Overseas Filipinos	Refers to migrant workers, Filipino nationals and their dependents abroad
Particulate matter	Any material, other than uncombined water, which exists in a finely divided form as a liquid or solid
Patent	A grant issued by the government through the Intellectual Property Office of the Philippines. It is an exclusive right granted for a product, process or an improvement of a product or process which is new, inventive and useful. This exclusive right gives the inventor the right to exclude others from making, using, or selling the product of his invention during the life of the patent.
Patent Cooperation Treaty	An agreement for international cooperation in the filing, searching and examination of patent applications and the dissemination of information contained in the applications. The treaty implements the concept of filing a single international patent application which will have a legal effect of filing in the different countries bound by the treaty.

Payment systems	Arrangement that allows users to transfer "money". In simple terms, "money" is regarded as cash (i.e., notes and coins issued by the government or central bank) and claims against credit institutions in the form of deposits. The use of bank deposits to make payments has become an important medium in most developed countries and to make a payment, the payer must issue an instruction in the form of a paper-based instrument (e.g., a check) or an electronic instruction (e.g., using a credit or plastic card). It consists of networks that link the members with existing rules and procedures for the use of this infrastructure. It normally requires the following: standard methods of conveying payment messages between members, agreed means of settling claims among members or participants, and common operating procedures and rules.
Peace building	The identification and support of measures and structures that will promote peace and build trust and interaction among former enemies in order to avoid a relapse into conflict.
People's Survival Fund	Allocation under the General Appropriations Act (GAA) for financing of adaptation programs and projects based on the National Strategic Framework (Republic Act 10174).
Performance Challenge Fund	An incentive fund to eligible local government units in the form of counterpart funding for local development projects in the Annual Investment Program and funded out of the 20 percent Local Development Fund. It seeks to rationalize national government intergovernmental transfers to local government units, and encourage alignment of local development initiatives with national government development agenda and priorities.
Persistent organic pollutants	Compounds that persist in the environment, bioaccumulate through the food web, and pose a risk of causing adverse effects to human health and the environment. These compounds resist photolytic, chemical, and biological degradation, which shall include but not be limited to dioxin, furan, polychlorinated biphenyls, organochlorine pesticides, such as aldrin, dieldrin, dichlorodiphenyltrichloroethane, hexachlorobenzene, lindane, toxaphere and chlordane.
PhilHealth	The Philippine Health Insurance Corporation, a government-owned and -controlled corporation attached to the Department of Health.
Philippine Qualifications Framework	A national policy that describes the levels of educational qualifications and sets standards for the outcomes of education and training, specializations, skills, and competencies. It supports the development and maintenance of pathways and equivalencies that provide access to qualifications.

Poor	Individuals and families whose income fall below the poverty threshold as defined by the government or those that cannot afford in a sustained manner to provide their basic needs of food, health, education, housing and other amenities of life (RA 8425, 1997).
Potential irrigable area	An arable land area of the country that can be developed for irrigation, relatively flat from with up to three percent slope rate, has an available source of water to sustain irrigation delivery for crop production and other agricultural purposes and has farmers willing to till the land and raise crops there (NIA, n.d.).
Precarious employment	Uncertainty and insecurity as to the duration of employment; multiple possible employers or a disguised or ambiguous employment relationship; a lack of access to social protection and benefits usually associated with employment; low pay; and substantial legal and practical obstacles to joining a trade union and bargaining collectively. The Philippine Statistics Authority defines precarious work as "short-term or seasonal or casual job." (ILO, n.d.)
Primary dealer program	A system by which select institutions are granted access to the primary auction of government securities and/or other facilities in exchange for carrying out or meeting certain criteria such as the distribution of securities in the secondary market.
Primary expenditures	Disbursements of the government excluding the interest payments on the debt.
Priority Development Assistance Fund	A lump sum appropriation in the national budget that serves as a discretionary fund available to members of Congress.
Product market efficiency	Measures the following: (a) extent of market dominance; (b) effectiveness of antitrust policy; (c) competition in professional services; (d) competition in retail services; (e) competition in network services; (f) prevalence of non-tariff barriers; (g) trade tariffs; (e) complexity of tariffs; (f) burden of customs procedures; (g) service trade restrictiveness; (h) total non-labor tax rate; and (i) distortive effect on competition of taxes and subsidies.
Program Expenditure Classification	A reform that restructures the current budget by grouping activities and projects under major programs or key strategies. This way, performance information and costs are assigned at the program level, rather than at the agency and major final output levels, which is the current format of the budget. This provides a more concrete picture of the short to medium-term benefits of the strategies or programs which the agency employs.
Program to Institutionalize Meritocracy and Excellence in Human Resource Management	A mechanism to continuously capacitate agencies in the performance of their human resource management functions, recognize best practices in the various areas of human resource management, and serve as a venue for exchange and development of expertise in human resource managements in the Philippine public service.

Project repeal	The initiative of the National Competitiveness Council, which aims to revoke regulation or rules that are outdated, redundant or detrimental to the economy.
Protected areas	Identified portions of land and water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation.
Protection forest	An area wholly or partly covered with woody vegetation managed primarily for its beneficial effects on water, climate, soil, aesthetic value, and preservation of genetic diversity.
Public Employment Service Offices	Public employment facilitation services such as job search assistance in key municipalities, cities and provinces of the country at the local level. The services locate where the jobs are, receive and screen applicants, and refer the qualified applicants to employers for placement. These offices also provide relevant labor market information, career guidance, and employment coaching activities as part of its core function.
Public Financial Management	The set of laws, rules, systems, and processes used by the government in resource mobilization and expenditure management. It is about the way 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 Management Development Program	An intensive program that provides comprehensive and multi-modal learning opportunities for public managers. It aims to foster careerism in government and promote stability in the bureaucracy by producing a corps of public managers that embody competence, integrity and commitment.
Public-private partnership	A contractual arrangement between the government and the private sector to deliver public infrastructure and/or public services.
Quad-Media	Communication channels through which news, entertainment, education, data, or promotional messages are disseminated through television, broadcasting, print, and cyber media.
Quick Response Fund	Built-in budgetary allocations that represent pre-disaster or standby funds for agencies in order to immediately assist areas stricken by catastrophes and crises.
Rapid exit taxiway	A taxiway connected to a runway at an acute angle and is designed to allow landing aeroplanes to turn off at higher speeds, thereby minimizing runway occupancy times.
Regionalism	Consciousness of and loyalty to a distinct region with a homogeneous population.

Registry System for Basic Sectors in Agriculture	A nationwide database of baseline information of farmers, farm laborers and fisher folk from identified provinces, as well as geographical coordinates of agricultural and fishery workers households.
Regulatory Quality	Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Rehabilitation	Measures that ensure the ability of affected communities/ areas to restore their normal level of functioning by rebuilding livelihood and damaged infrastructure and increasing the communities' organizational capacity (Republic Act 10121).
Renewable energy	Energy resources that do not have an upper limit on the total quantity to be used, e.g., biomass, solar, wind, geothermal, hydropower, among others. Such resources are renewable on a regular basis, and whose renewal rate is relatively rapid to consider availability over an indefinite period of time.
Rental housing	A type of housing where occupancy is permitted by the owner in consideration of the payment of agreed charges, whether or not by the terms of the agreement, such payment over a period of time will entitle the occupant to the ownership of the premises (RA 8763, 2000).
Report Card Survey	An evaluation to obtain feedback on how provisions in the Citizen's Charter are being followed and how the agency is performing. This evaluation also includes estimates of hidden costs incurred by clients to access frontline services, which may include, but are not limited to, bribes and payment to fixers.
Repurchase agreement or "repo"	A form of short-term borrowing for dealers in government securities. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back the following day. It is a generic name for both repurchase agreements and sell/buy-backs, sometimes known as 'sale-and-repurchase agreements'.
Resettlement areas	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 and other qualified households (RA 7279, 1992).
Resiliency or resilience	The capacity of social, economic, and environmental systems to cope with a hazardous event or trend disturbance, responding, or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation (IPCC, 2014).
Retail electricity supplier	Any person or entity authorized by the Energy Regulatory Commission to sell, broker, market, or aggregate electricity to the end-users.

Revenue effort	Computed as the ratio of total government revenues (both tax and non-tax) to gross domestic product at current prices. Aims to measure the capability of the government sector to generate revenues to support the development needs of the economy.
Risk assessment	A methodology used to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihood, and the environment on which they depend (RA 10121, 2010).
Risk transfer	Refers to the process of formally or informally shifting the financial consequences of particular risks from one party to another whereby a household, community, enterprise or state authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party (RA 10121, 2010).
River basin	An area of land that drains water, sediment, and dissolved materials, to a common outlet at some point along the river and or stream channel.
Roll-on-roll-off	Cargo handling technique first introduced in the 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.
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.
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.
Seal of Good Local Governance	A mechanism that monitors and recognizes adherence of local government units to performance criteria on any of the following areas: good financial housekeeping, disaster preparedness, social protection for the basic sector, business friendliness and competitiveness, environmental compliance, and law and order and public safety. This used to be referred to as the Seal of Good Housekeeping.
Security of tenure	The degree of protection afforded to qualified program beneficiaries against infringement or unjust, reasonable and arbitrary eviction or disposition, by virtue of the right of ownership, which may come in the form of lease agreement, usufruct, or other contractual arrangements (RA 7279, 1992).

Sendai Framework for Disaster Risk Reduction 2015-2030	Adopted at the Third UN World Conference in Sendai, Japan on 18 March 2015 to give further impetus to the global work under the International Framework for Action for the International Decade for Natural Disaster Reduction of 1989, and the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action, adopted in 1994 and the International Strategy for Disaster Reduction of 1999.
Septage	Sludge produced on individual onsite wastewater disposal systems, principally septic tanks, and cesspools.
Septage management	The proper collection, treatment, and disposal of septage.
Service delivery networks	Network of health facilities and providers within the province- or city-wide health system, offering core packages of health care services in an integrated and coordinated manner.
Sewerage	Any system or network of pipelines, ditches, channels, or conduits, which collects, transports, pumps, and treats water-borne human and animal waste removed from residences, buildings, and industrial and commercial establishment to point of disposal.
Single Carpeta System	An integrated database of inmate information management for the Bureau of Jail Management and Penology, Board of Pardons and Parole, and Parole and Probation Administration. The system also serves as an exchange portal among them and with the Inmate Management Information System of the Bureau of Corrections.
Small farmer	Farmers cultivating not more than three hectares of land; landless farm workers with primary occupation in agriculture; or those engaged as backyard poultry/livestock raisers. In case of combination of these activities, the primary source of income will serve as the basis.
Small scale irrigation system	Irrigation with limited service areas, constructed in locations where permanent or continuous water sources are not available, and in which farmers have the control and management of the water abstraction from its source and using a level of technology which the farmers can effectively operate and maintain (DA-BSWM, 2014).
Small water districts	Water districts with less than 3,000 connections. *See water district definition*
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 insurance	Programs that seek to mitigate income risks by pooling resources and spreading risks across time and classes. These are designed in such a way that beneficiaries pay a premium over a given period of time to cover or protect them from loss of income and unemployment as a result of illness, injury, disability, retrenchment, harvest failure, maternity, old age, etc. This component includes micro and area-based schemes to address vulnerability at the community level such as microinsurance, agricultural insurance and social support funds. (NEDA-SDC, 2007)
Social protection	Constitutes policies and programs that seek to reduce poverty and vulnerability to risks and enhance the social status and rights of the marginalized by promoting and protecting livelihood and employment, protecting against hazards and sudden loss of income, and improving people's capacity to manage risks (NEDA-SDC, 2007).
Social safety nets	Stop-gap mechanisms or urgent responses that address effects of economic shocks, disasters and calamities on specific vulnerable groups with the objective of providing relief and transition. Measures include emergency assistance, price subsidies, food programs, employment programs, retraining programs and emergency loans. (NEDA-SDC, 2007)
Social services	Education, manpower development, health, housing and social security and welfare services.
Socialized housing	Units that are affordable to low-income earners, with price ceiling not more than ₱450,000. It also refers to programs and projects undertaken by the government or private sector entities to assist underprivileged and homeless citizens in acquiring housing structures (RA 10884, 2016).
Solid waste	Discarded household, commercial, institutional and industrial materials, street sweepings, construction debris, agricultural refuse, and other non-hazardous/non-toxic solid excess.
Solid waste management	Discipline associated with the control of generation, storage, collection, transfer and transport, processing, and disposal of solid wastes in a manner that is in accord with the best principles of public health, economics, engineering, conservation, aesthetics, and other environmental considerations, and that is also responsive to public attitudes
Solo parent	Any person who solely provides parental care and support to a child or children as a result of death, abandonment, disappearance, or prolonged absence of the parent or spouse (RA 8972, 2000).
Sovereign rights	A right possesed by a State on top of its property rights as a legal entity and which enables it and some of its agencies to act in the benefit of its citizens as it deems fit.

Sovereignty	The supreme, absolute, and uncontrollable power by which an independent state is governed.
Space technology	The technology that is related to entering and retrieving objects or life forms from space. Technologies such as weather forecasting, remote sensing, GPS system, satellite television, and some long distance communication systems critically rely on space infrastructures.
Special education	The education of persons who are gifted or talented and those who have physical, mental, or sensory impairment and cultural differences that require modifications of school curricula, programs and special services and physical facilities to develop them to their maximum capabilities.
Strategic Performance Management System	A mechanism that links individual employees' performance to their agency's organizational vision, mission and strategic goals. It is designed by the Civil Service Commission to ensure that the employee achieves the objectives set by the organization; and that the organization achieves the objectives that it has set itself in its strategic plan. This mechanism focuses on the agency's major final outputs, together with their corresponding performance indicators, as these relate to the achievement of the agency's strategic objectives.
Stunting	A state in which a child, as a result of inadequate diet in the past, is small or short for his or her age and for his or her genetic stock.
Subsistence incidence	Proportion of the population with per capita income less than the per capita food threshold (PSA, n.d.).
Sukuk	Islamic financial certificate that complies with Sharia - Islamic religious law. The issuer of a sukuk sells an investor group a certificate, and then uses the proceeds to purchase an asset, of which the investor group has partial ownership. The issuer must also make a contractual promise to buy back the bond at a future date at par value.
Sustainable consumption and production	The 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 further generations (Oslo Symposium, 1994).
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Integrated Area Development	A strategy that takes into account area-based interventions, concepts on integrated island development, and has people and integrity of nature at its core. This is grounded on the basic principles of the Philippine Agenda 21, specifically on the integration of the various overarching dimensions and components of sustainable development and the need for participation of government, business and civil society as provided for under Executive Order No. 15, s. 1992 and Executive Order No. 370, s. 1996 (Draft DENR Guidelines).
Sustainable land management	The use of the land to meet changing human needs, while ensuring long term socioeconomic and ecological functions of the land.
Task Force Katarungan at Kalayaan	Task for whose mandate is to track and keep a record of the progress of criminal cases of all detained persons within its jurisdiction, and ensure that such persons are accorded the rights and privileges provided by law, the rules, and the guidelines. The Task Force shall have access to all case records and information relating to detained persons and shall advise the judges hearing their cases, when warranted, of the need for them to act on any incident or situation that adversely affects the rights of detained persons or subjects them to undue or harsh treatment.
Taxpayer Bill of Rights	A list of rights, protections and guarantees including legal remedies available to all taxpayers in relation to their dealings with the tax collecting agencies and government in general.
Technical vocational education and training	The education or training process where it involves, in addition to general education, the study of technologies and related sciences and acquisition of practical skills relating to occupations in various sectors of economic life and social life, comprises formal (organized programs as part of the school system) and non-formal (organized classes outside the school system) approaches.
Technology business incubation	A specific type of business incubator – a property-based venture that provides tangible and intangible services to new technology-based firms, entrepreneurs, and spin-offs of universities and large firms, all with the aim of helping them increase their chances of survival and generate wealth and jobs and diffuse technology.
Technology transfer	The process by which one party systematically transfers to another party the knowledge for the manufacture of a product, the application of a process, or rendering of a service, which may involve the transfer, assignment or licensing of Intellectual Property Rights.
Technopreneur	A new age entrepreneur who makes use of technology to come out with something new to make some innovation. Once the person succeeds in it, he exploits his achievement in the market to make money.

Three-year Rolling Infrastructure Program	The document containing the pipeline strategies and other projects needed to sustain inclusive economic growth. It aims to synchronize infrastructure planning, programming, and budgeting and execution processes of the government both at the oversight and the implementing agency levels.
Traffic engineering	A discipline which includes the design of highways and pedestrian ways, the study and application of traffic statistics, and the environmental aspects of the transportation of goods and people
Traffic management	The direction, control, and supervision of all functions incident to the procurement and use of freight and passenger transportation services.
Transparency Seal	The mandatory disclosure of key budget and major plans of national government agencies (statement of allotment, obligation and balances; disbursement and income; procurement plans) in their respective websites.
Travel demand management	A set of strategies aimed at reducing the demand for roadway travel, particularly in single occupancy vehicles. These strategies address a wide range of externalities associated with driving, including congestion, poor air quality, less livable communities, reduced public health, dependence on oil, reduced environmental health, and climate change and GHG emissions.
Travel medicine	An interdisciplinary specialty concerned with the prevention and management of diseases during travel, personal safety of travelers and the avoidance of environmental risks.
Turnaround time	Duration between the arrival of a vessel and its departure from port. It is frequently used as a measure of port efficiency.
Twenty-foot equivalent unit	The unit of the capacity of a container ship, a container terminal, and the statistics of the container transit in a port.
Two-tiered wage system	A pay system consisting of minimum wage and incentive pay based on productivity improvement and gain-sharing.
Under-five mortality rate	The probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period.
Underspending	Occurs when actual disbursements are lower than the approved program.
Unemployed	Persons in the labor force who are reported as without work and currently available for work. These persons may be actively seeking work, not seeking work, awaiting results of previous job application, waiting for rehire or job recall. Persons who are jobless because of temporary illness, disability, or bad weather are also included.

Universal charge	A fixed amount approved by the Energy Regulatory Commission pursuant to Section 34 of RA 9136 imposed on all electricity end-users for the payment of stranded debts in excess of the amount assumed by the national government and stranded contract costs of the National Power Corporation and, environmental charge.
Unregulated fishing	Fishing activities conducted by: (a) vessels without nationality but operated by a Filipino and/or Filipino corporation; (b) Philippine flagged fishing vessels operating in areas or fish stocks where there are no applicable conservation and management measures; and (c) Philippine flagged fishing vessels operating in areas of fish stocks where there are no applicable conservation and management measures (RA 10654, 2015).
Usufruct	Refers to the right to enjoy the property of another with the obligation of preserving its form and substance (RA 9904, 2009).
Utility model	A protection option, which is designed to protect innovations that are not sufficiently inventive to meet the inventive threshold required for standard patents application. It may be any useful machine, implement, tools, product, composition, process, improvement or part of the same.
Value chain	The full range of activities that are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use.
Voice and accountability	Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
Vulnerability	The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. Vulnerability may arise from various physical, social, economic, and environmental factors such as poor design and construction of buildings, inadequate protection of assets, lack of public information and awareness, limited official recognition of risks and preparedness measures, and disregard for wise environmental management. (RA 10121, 2010; UNISDR, 2007)
Vulnerable	Households confronted by ex-ante risk that, if they are currently non-poor, will fall below the poverty line, or if they are currently poor, will remain in poverty. It is also defined in terms of exposure to adverse shocks to welfare and not only in terms of exposure to poverty (NEDA-SDC, 2007).
Wasting	Current or recent or active malnutrition characterized by very low weight-for-height as a result of deficits in both muscle tissue and fat mass.

Water district	Government-owned and controlled corporations created primarily to acquire, install, operate, maintain, and improve water supply and distribution systems for domestic, industrial, and municipal uses of residents and to provide, maintain, and operate waste water collection, treatment, and disposal facilities within the boundaries of the district.
Water quality management areas	Designated sites, pursuant to Republic Act 9275, which uses appropriate physiographic units such as watershed, river basins or water resources regions. The objective of the designation is to protect, through stakeholder collaborations, the water body and its tributaries by keeping their water quality within the Water Quality Guidelines or Criteria conforming to the water body's classification or even improve the quality to higher classification (e.g., from C to B or SC to SB).
Water rights	The privilege granted by the State to appropriate and use water resources for domestic, municipal, irrigation, power generation, fisheries, livestock, recreational, and other purposes, in accordance with the Water Code of the Philippines.
Watershed	A land area drained by a stream or fixed body of water and its tributaries having a common outlet for surface run-off. Also called basin or catchment areas.
Weighbridges	Equipment used to weigh entire vehicles and their contents, which are usually mounted permanently on a concrete foundation.
Wetlands	Areas of marsh, peatland or water, whether natural or artificial, permanent or temporary, with water that is static, flowing, fresh, brackish, or salt, including area of marine water, the depth of which at low tide does not exceed six meters.
Whole-of-Government approach	An approach where a government actively uses formal or informal networks across different agencies to coordinate the design and implementation of interventions in order to increase the effectiveness of those interventions in achieving the desired objectives.
Wholesale electricity spot market	The market where competitive, efficient, transparent and reliable market/trading of electricity will be made.
Wildlife	Wild forms and varieties of flora and fauna, in all developmental stages, including those which are in captivity or are being bred or propagated
Worldwide Governance Indicators	A research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms.

Yield	An indicator of productivity for agricultural commodities derived by dividing total production by the area planted or harvested.
Yield curve	A line that plots the interest rates, at a set point in time, of bonds and other financial instruments having equal credit quality but differing maturity dates. It is issued as a benchmark for other debt in the market such as mortgage rates or bank lending rates. The curve is also a graphical representation of the range of interest rates available to investors and fused to predict changes in economic output and growth.
Youth	Individuals belonging to the age group 15 to 30 years (RA 8044, 1995).

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PDP 2017-2022 Planning Committees

PLANNING COMMITTEE ON ECONOMIC DEVELOPMENT

Chair:	**Assistant Secretary Ireneo V. Vizmonte** Department of Trade and Industry (DTI)
Alternate Chairperson:	**Assistant Secretary Rafaelita M. Aldaba** Department of Trade and Industry (DTI)
Co-Chair:	**Undersecretary Segfredo R. Serrano** Department of Agriculture (DA)

Member Agencies:

Bangko Sentral ng Pilipinas (BSP)
Department of Agrarian Reform (DAR)
Department of Energy (DOE)
Department of Environment and Natural Resources (DENR)
Department of Finance (DOF)
Department of Foreign Affairs (DFA)
Department of Information and Communications Technology (DICT)
Department of the Interior and Local Government (DILG)
Department of Labor and Employment (DOLE)
Department of Science and Technology (DOST)
Department of Tourism (DOT)
Department of Transportation (DOTr)
Office of the Cabinet Secretary (OCS)
Congressional Policy and Budget Research Department (CPBRD)
Senate Economic Planning Office (SEPO)
Development Bank of the Philippines (DBP)
Land Bank of the Philippines (LBP)
National Nutrition Council (NNC)
Philippine Commission on Women (PCW)
Philippine Institute for Development Studies (PIDS)
Philippine Statistics Authority (PSA)

SUBCOMMITTEE ON AGRICULTURE, FORESTRY AND FISHERIES (SC-AFF)

Chair:	**Assistant Secretary Lerey A. Panes** Department of Agriculture (DA)
Co-Chairs:	**Undersecretary and Concurrent Director Eduardo B. Gongona** Bureau of Fisheries and Aquatic Resources (BFAR)
	Director Letecia N. Damole-Cañales Department of Agrarian Reform (DAR)

Member Agencies:

Department of Trade and Industry-Board of Investments (DTI-BOI)
Department of Environment and Natural Resources-Biodiversity Management Bureau (DENR-BMB)
DENR - Forest Management Bureau (FMB)
Department of Budget and Management (DBM)
Department of Labor and Employment (DOLE)
Philippine Statistics Authority (PSA)
Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD)
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
Land Bank of the Philippines (LBP)
Development Academy of the Philippines (DAP)
National Fisheries Research and Development Institute (NFRDI)
Philippine Center for Postharvest Development and Mechanization (PhilMech)
Bureau of Soils and Water Management (BSWM)
Bureau of Agricultural Research (BAR)
Agricultural Training Institute (ATI)
Agricultural Credit Policy Council (ACPC)
Philippine Crop Insurance Corporation (PCIC)
Philippine Coconut Authority (PCA)
Sugar Regulatory Administration (SRA)
National Food Authority (NFA)
National Irrigation Administration (NIA)
National Nutrition Council (NNC)
Philippine Institute for Development Studies (PIDS)
Congressional Policy and Budget Research Department (CPBRD)
Senate Economic Planning Office (SEPO)

SUBCOMMITTEE ON INDUSTRY AND SERVICES (SC-I&S)

Chairs	**Assistant Secretary Rafaelita M. Aldaba** **Assistant Secretary Arturo P. Boncato Jr.,** Department of Trade and Industry (DTI)
Co-Chair:	**Undersecretary Alma Rita D. Jimenez** Department of Tourism (DOT)

Member Agencies:

Bangko Sentral ng Pilipinas (BSP)
Department of Agriculture (DA)
Department of Trade and Industry-Board of Investments (DTI-BOI)
Department of Energy (DOE)
Department of Environment and Natural Resources (DENR)
Department of Finance (DOF)
Department of Information and Communications Technology (DICT)
Department of Labor and Employment (DOLE)
Department of Science and Technology (DOST)
Department of the Interior and Local Government (DILG)
Department of Transportation (DOTr)
Philippine Statistics Authority (PSA)
Philippine Institute for Development Studies (PIDS)
Bureau of Fisheries and Aquatic Resources (BFAR)
Commission on Higher Education (CHED)
Construction Industry Authority of the Philippines (CIAP)
Intellectual Property Office of the Philippines (IPOPhil)
Philippine Council for Industry, Energy and Emerging Technology, Research and Development (PCIEERD)
Philippine Economic Zone Authority (PEZA)
Technical Education and Skills Development Authority (TESDA)

PLANNING COMMITTEE ON HUMAN CAPITAL DEVELOPMENT

Chair:	**Secretary Leonor M. Briones** Department of Education (DepEd)
Co-Chairs:	**Secretary Paulyn Jean B. Rosell-Ubial** Department of Health (DOH)
	Secretary Silvestre H. Bello III Department of Labor and Employment (DOLE)
	Secretary-General Angel Ojastro III Housing and Urban Development Coordinating Council (HUDCC)

Member Agencies:

Commission on Higher Education (CHED)
Department of the Interior and Local Government (DILG)
Department of Social Welfare and Development (DSWD)
National Anti-Poverty Commission (NAPC)
Department of Budget and Management (DBM)
National Nutrition Council (NNC)
Commission on Population (POPCOM)
Philippine Statistics Authority (PSA)
Philippine Commission on Women (PCW)
Technical Education and Skills Development Authority (TESDA)
Congressional Planning, Budget and Research Department (CPBRD)
Senate Economic Planning Office (SEPO)
Union of Local Authorities of the Philippines (ULAP)
House of Representatives Special Committee on the Sustainable Development Goals (SDGs)
National Economic and Development Authority (NEDA)
Department of Science and Technology – Science Education Institute(DOST-SEI)
Philippine National Volunteer Service Agency (PNVSCA)
Office of the Cabinet Secretary (OCS)

SUBCOMMITTEE ON HIGHER EDUCATION, TRAINING AND LABOR MARKET POLICIES

Chair:	**Assistant Secretary Alex Avila** Department of Labor and Employment (DOLE)
Co-Chairs:	**Director Napoleon Juanillo** Commission on Higher Education (CHED)
	Undersecretary Rosanna A. Urdaneta Technical Education and Skills Development Authority (TESDA)

Member Agencies:

Department of Trade and Industry (DTI)
Department of Science and Technology (DOST)
Department of Labor and Employment (DOLE)
National Wages and Productivity Commission (NWPC)
Occupational Safety and Health Center (OSH)
Employees' Compensation Commission (ECC)
Professional Regulation Commission (PRC)
Commission on Filipinos Overseas (CFO)
Department of Education (DepEd)
Department of Agriculture (DA)
Department of Environment and Natural Resources (DENR)
National Anti-Poverty Commission (NAPC)
National Youth Commission (NYC)
Philippine Commission on Women (PCW)
Philippine Statistics Authority (PSA)
House of Representatives Committee on Higher and Technical Education (HoR CHTE)
House of Representatives Committee on Labor and Employment (HoR CLE)
National Economic and Development Authority (NEDA)

SUBCOMMITTEE ON NUTRITION, HEALTH AND BASIC EDUCATION

Chair:	**Undersecretary Jesus Lorenzo R. Mateo** Department of Education (DepEd)
Co-Chairs:	**Undersecretary Lilibeth C. David, M.D.** Department of Health (DOH)
	Assistant Secretary Maria-Bernardita T. Flores National Nutrition Council (NNC)

Member Agencies:

Commission on Population (POPCOM)
Commission on Population (POPCOM)
Council for the Welfare of Children (CWC)
Early Childhood Care and Development (ECCD) Council
Food and Nutrition Research Institute (DOST-FNRI)
National Youth Commission (NYC)
National Anti-Poverty Commission (NAPC)
National Anti-Poverty Commission (NAPC)
National Council on Disability Affairs (NCDA)
National Commission on Indigenous Peoples (NCIP)
Philippine Commission on Women (PCW)
Philippine Health Insurance Corporation (PhilHealth)
Philippine Council for Health Research and Development (PCHRD)
Philippine Statistics Authority (PSA)
Philippine Sports Commission (PSC)
UP -National Institutes of Health (UP NIH)
House of Representatives Committee on Health (HoR CoH)
House of Representatives Committee Basic Education and Culture (HoR CBEC)
Senate Committee on Health and Demography (SC HD)
Senate Committee on Education, Arts and Culture (SC EAC)
National Economic and Development Authority (NEDA)

SUBCOMMITTEE ON SOCIAL PROTECTION

Chair:	**Undersecretary Ma. Lourdes H. Turalde** Department of Social Welfare and Development (DSWD)
Co-Chair:	**Assistant Secretary Alex V. Avila** Department of Labor and Employment (DOLE)

Member Agencies:

Philippine Health Insurance Corporation (PhilHealth)
Department of Health (DOH)
Social Security System (SSS)
Government Service Insurance System (GSIS)
Employees' Compensation Commission (ECC)
National Commission on Indigenous Peoples (NCIP)
National Council on Disability Affairs (NCDA)
Council for the Welfare of Children (CWC)
Overseas Workers Welfare Administration (OWWA)
Philippine Overseas Employment Administration (POEA)
Office of Civil Defense (OCD)
Climate Change Commission (CCC)
National Anti-Poverty Commission (NAPC)
National Youth Commission (NYC)
Philippine Commission on Women (PCW)
Department of Agriculture (DA)
Department of Agrarian Reform (DAR)
Department of the Interior and Local Government (DILG)
Department of Budget and Management (DBM)
Department of Trade and Industry (DTI)
Technical Education and Skills Development Authority (TESDA)
Philippine Statistics Authority (PSA)
National Economic and Development Authority (NEDA)

SUBCOMMITTEE ON SHELTER SECURITY

Chair:	**Assistant Secretary Patrocinio Jude III Esguerra** Housing and Urban Development Coordinating Council (HUDCC)
Co-Chair:	Department of the Interior and Local Government (DILG)

Member Agencies:

Home Development Mutual Fund (HDMF)
Home Guaranty Corporation (HGC)
Housing and Land Use Regulatory Board (HLURB)
National Housing Authority (NHA)
National Home Mortgage Finance Corporation (NHMFC)
National Anti-Poverty Commission (NAPC)
Presidential Commission for the Urban Poor (PCUP)
Department of Social Welfare and Development (DSWD)
Philippine Statistics Authority (PSA)
Philippine Statistics Authority (PSA)
Social Housing Finance Corporation (SHFC)
Department of Trade and Industry (DTI)
Land Registration Authority (LRA)
National Commission on Muslim Filipinos (NCMF)
Technical Education and Skills Development Authority (TESDA)
Department of Environment and Natural Resources (DENR)
Department of Agrarian Reform (DAR)
Department of Public Works and Highways (DPWH)
Energy Regulatory Commission (ERC)
Local Water Utilities Administration (LWUA)
Philippine Commission on Women (PCW)
National Commission on Indigenous Peoples (NCIP)
National Council on Disability Affairs (NCDA)
House of Representatives Committee on Housing and Urban Development (HoR CHUD)
Senate Committee on Urban Planning, Housing and Resettlement (SC UPHR)
UP School of Urban and Regional Planning (SURP)
National Economic and Development Authority (NEDA)

PLANNING COMMITTEE ON INTERNATIONAL MIGRATION AND DEVELOPMENT

Chair: **Usec Ciriaco A. Lagunzad III**
Department of Labor and Employment (DOLE)

Member Agencies:

Department of Foreign Affairs (DFA)
Commission on Filipinos Overseas (CFO)
National Reintegration Center for Overseas Filipino Workers (NRCO)
Union of Local Authorities of the Philippines (ULAP)
Philippine Overseas Employment Administration (POEA)
Overseas Workers Welfare Administration (OWWA)
Department of the Interior and Local Government (DILG)
Bangko Sentral ng Pilipinas (BSP)
National Economic and Development Authority (NEDA)
National Anti-Poverty Commission (NAPC)

SUBCOMMITTEE ON ENGAGEMENT

Chair:	**Dir. Adeline de Castro**	Department of Labor and Employment (DOLE)

SUBCOMMITTEE ON PROTECTION AND WELFARE

Chair:	**Dep. Admin Amuerfina Reyes**	Philippine Overseas Employment Administration (POEA)

SUBCOMMITTEE ON REINTEGRATION

Chair:	**OIC Ma. Regina Angela Galias**	Commission on Filipinos Overseas (CFO)

PLANNING COMMITTEE ON INFRASTRUCTURE DEVELOPMENT

Chair: **Secretary Ernesto M. Pernia**
National Economic and Development Authority (NEDA)

SUBCOMMITTEE ON TRANSPORT

Chair: **Undersecretary Anneli R. Lontoc**
Department of Transportation (DOTr)

Co-Chair: **Undersecretary Ma. Catalina E. Cabral**
Department of Public Works and Highways (DPWH)

Member Agencies:

Metro Manila Development Authority (MMDA)
Philippine National Railways (PNR)
Philippine Ports Authority (PPA)
Civil Aviation Authority of the Philippines (CAAP)
Light Rail Transit Authority (LRTA)
Land Transportation Authority (LTO)
Land Transportation Franchising and Regulatory Board (LTFRB)
Department of Transportation-Metro Rail Transit 3 (DOTr-MRT 3)
Manila International Airport Authority (MIAA)
Philippine Coast Guard (PCG)
Toll Regulatory Board (TRB)
Clark International Airport Corporation (CIAC)
Mactan-Cebu International Airport Corporation (MCIAC)
Cebu Ports Authority (CPA)
Civil Aeronautics Board (CAB)
Office of Transportation Security (OTS)
Authority of the Freeport Area of Bataan (AFAB)
Subic Bay Metropolitan Authority (SBMA)
Bases Conversion and Development Authority (BCDA)
Clark Development Corporation (CDC)
Cagayan Economic Zone Authority (CEZA)
Philippine Economic Zone Authority (PEZA)
Poro Point Management Corporation (PPMC)
Housing and Urban Development Coordinating Council (HUDCC)

SUBCOMMITTEE ON WATER RESOURCES

Chair: **Director Roderick M. Planta**
National Economic and Development Authority (NEDA)

Co-Chair: **Executive Director Sevillo D. David, Jr.,**
National Water Resources Board (NWRB)

Member Agencies:

Core
Department of Finance (DOF)
Department of Budget and Management (DBM)
Department of Environment and Natural Resources (DENR)
Department of Health (DOH)
Department of Agriculture (DA)
Department of Energy (DOE)
Department of Public Works and Highways (DPWH)
Department of the Interior and Local Government (DILG)
Philippine Water Partnership (PWP)
University of the Philippines-National Hydraulics Research Center (UP-NHRC)
Department of Transportation (DOTr)
Department of Justice (DOJ)
Department of Tourism (DOT)
Office of the President-Office of the Executive Secretary (OP-OES)

Water Supply and Sanitation
Metropolitan Waterworks and Sewerage System (MWSS)
Local Water Utilities Administration (LWUA)
National Anti-Poverty Commission (NAPC)
Philippine Association of Water Districts (PAWD)
National Water and Sanitation Association of the Philippines (NAWASA)
Department of Social Welfare and Development (DSWD)
Cooperative Development Authority (CDA)
Department of Agrarian Reform (DAR)
League of Provinces of the Philippines (LPP)
League of Cities of the Philippines (LCP)
League of Municipalities of the Philippines (LMP)

Irrigation
Department of Agrarian Reform (DAR)
National Irrigation Administration (NIA)
Bureau of Soils and Water Management (BSWM)
League of Provinces of the Philippines (LPP)
League of Cities of the Philippines (LCP)
League of Municipalities of the Philippines (LMP)

Flood Control and Drainage
Metropolitan Manila Development Authority (MMDA)
National Housing Authority (NHA)
Housing and Urban Development Coordinating Council (HUDCC)
League of Provinces of the Philippines (LPP)
League of Cities of the Philippines (LCP)
League of Municipalities of the Philippines (LMP)

SUBCOMMITTEE ON ENERGY

Chair: **Undersecretary Jesus Cristino P. Posadas**
Department of Energy (DOE)

Member Agencies:

National Electrification Administration (NEA)
Power Sector Assets and Liabilities Management Corp. (PSALM)
National Power Corporation (NPC)
National Transmission Corporation (NTC)
National Grid Corporation of the Philippines (NGCP)
Philippine National Oil Company (PNOC)
Philippine National Oil Company-Exploration Corporation (PNOC-EC)
Philippine National Oil Company-Renewables Corporation (PNOC-RC)
Energy Regulatory Commission (ERC)

SUBCOMMITTEE ON ICT INFRASTRUCTURE

Chair: **Undersecretary Denis F. Villorente**
Department of Information and Communications Technology (DICT)

Member Agencies:

National Telecommunications Commision (NTC)
Philippine Statistics Authority (PSA)
Presidential Communications Operations Office (PCOO)
People's Television Network Inc. (PTNI/PTV-4)
Philippine Information Agency (PIA)
Philippine Broadcasting Service-Bureau of Broadcast Services (PBS-BBS)

SUBCOMMITTEE ON SOCIAL INFRASTRUCTURE

Member Agencies:

Housing and Urban Development Coordinating Council (HUDCC)
National Housing Authority (NHA)
Department of Health (DOH)
Department of Education (DepEd)
National Solid Waste Management Commission Secretariat-Environmental Management Board (NSWMC-EMB)

*OTHERS (Cross-cutting)

Office of the President-Office of the Executive Secretary (OP-OES)
Office of the Cabinet Secretary (OCS)
Philippine Statistics Authority (PSA)
Department of Trade and Industry (DTI)
Development Bank of the Philippines (DBP)
Department of Budget and Management (DBM)
Department of the Interior and Local Government (DILG)
Department of Finance (DOF)

PLANNING COMMITTEE ON MACROECONOMIC POLICY

Chair: **Director Francisco G. Dakila, Jr.**
Bangko Sentral ng Pilipinas (BSP)

Co-Chairs: **Usec. Karl Kendrick Chua**
Department of Finance (DOF)

Asec. Soledad Emilia J. Cruz
Department of Finance (DOF)

Member Agencies:

National Economic and Develompent Authority (NEDA)
Bangko Sentral ng Pilipinas (BSP)
Department of Finance (DOF)
Department of Trade and Industry (DTI)
Department of Budget and Management (DBM)
Department of Labor and Employment (DOLE)
Department of Science and Technology (DOST)
Bureau of the Treasury (BTr)
Department of Agriculture (DA)
Department of Foreign Affairs (DFA)
Senate Economic Planning Office (SEPO)
Congressional Policy and Budget Research Department (CPBRD)
Securities and Exchange Commission (SEC)
Philippine Statistics Authority (PSA)
Bureau of Local Government and Finance (BLGF)
Office of the President-Presidential Management Staff (OP-PMS)
Office of the Cabinet Secretary (OCS)
Philippine Commission on Women (PCW)

SUBCOMMITTEE ON FISCAL POLICY

Chair: **Usec. Karl Kendrick T. Chua**
Department of Finance (DOF)

Co-Chair: **Mr. Rolando U. Toledo**
Department of Budget and Management (DBM)

Member Agencies:

Department of Finance (DOF)
Department of Budget and Management (DBM)
Buerau of the Treasury (BTr)
National Economic and Development Authority (NEDA)
Senate Economic Planning Office (SEPO)
Congressional Policy and Budget Research Department (CPBRD)
Office of the President - Presidential Management Staff (OP-PMS)
Bureau of Local Government and Finance (BLGF)
Office of Cabinet Secretary (OCS)

SUBCOMMITTEE ON EXTERNAL TRADE

Chair: **Dir. Senen Perlada**
Department of Trade and Industry (DTI)

Member Agencies:

Department of Trade and Industry (DTI)
Bangko Sentral ng Pilipinas (BSP)
Department of Finance (DOF)
Philippine Statistics Authority (PSA)
Department of Labor and Employment (DOLE)
Office of the Cabinet Secretary (OCS)
Department of Agriculture (DA)
Department of Foreign Affairs (DFA)
National Economic and Development Authority (NEDA)
Department of Science and Technology (DOST)
Food and Drug Administration (FDA)
Export Development Council Secretariat (EDC)

SUBCOMMITTEE ON MONETARY AND FINANCIAL SECTOR

Chair: **Dir. Veronica Bayangos, PhD**
Bangko Sentral ng Pilipinas (BSP)

Member Agencies:

Bureau of the Treasury (BTr)
Development Bank of the Philippines (DBP)
Landbank of the Philippines (LBP)
Government Service and Insurance System (GSIS)
Social Security System (SSS)
Securities and Exchange Commission (SEC)
Insurance Commission (IC)
Department of Budget and Management (DBM)
Senate Economic Planning Office (SEPO)
Congressional Policy and Budget Research Department (CPBRD)
National Reintegration Center for Overseas Filipino Workers (NRCO)
Philippine Statistics Authority (PSA)
Bangko Sentral ng Pilipinas (BSP)
Department of Finance (DOF)
Department of Trade and Industry (DTI)
Office of the President- Presidential Management Staff (OP-PMS)
Philippine Institute of Development Studies (PIDS)
Small Business Corporation (SBC)
Cooperative Development Authority (CDA)
Philippine Deposit Insurance Corporation (PDIC)

PLANNING COMMITTEE ON NATIONAL COMPETITION POLICY

Chair: **Comm. Stella Luz A. Quimbo**
Philippine Competition Commission (PCC)
Co-Chair: **ASec. George O. Ortha II**
Department of Justice (DOJ)

Member Agencies:

Department of Justice – Office for Competition (DOJ -OFC)
Department of Trade and Industry – Competitiveness Bureau (DTI – CB)
Governance Commission for GOCCs (GCG)
National Economic and Development Authority (NEDA)
Philippine Competition Commission (PCC)

PLANNING COMMITTEE ON CITIZEN-CENTERED, CLEAN AND EFFICIENT DELIVERY OF PUBLIC GOODS AND SERVICES

Chair	**Assistant Secretary Jonas George S. Soriano** Office of the Cabinet Secretary (OCS)
Co-Chairs:	**Undersecretary Laura B. Pascua** Department of Budget and Management (DBM)
	Director Francisco R. Cruz Department of the Interior and Local Government (DILG)

Member Agencies:

Commission on Human Rights (CHR)
Commission on Audit (COA)
Commission on Elections (COMELEC)
Civil Service Commission (CSC)
Development Academy of the Philippines (DAP)
Department of Budget and Management (DBM)
Department of Information and Communications Technology (DICT)
Department of the Interior and Local Government (DILG)
Department of Finance (DOF)
Department of Trade and Industry (DTI)
Governance Commission for GOCCs (GCG)
Office of the Cabinet Secretary (OCS)
Office of the Ombudsman (OMB)
Presidential Communications Operations Office (PCOO)
Philippine Statistics Authority (PSA)
National Economic and Development Authority (NEDA)
Union of Local Authorities of the Philippines (ULAP)

PLANNING COMMITTEE ON ADMINISTRATION OF JUSTICE

Chair: **Associate Justice Maria Filomena D. Singh**
Court of Appeals (CA)

Member Agencies:

Commission on Human Rights (CHR)
Philippine Commission on Women (PCW)
Philippine Drug Enforcement Agency (PDEA)
Department of the Interior and Local Government (DILG)

DILG Attached agencies
Bureau of Jail Management and Penology (BJMP)
Bureau of Local Governance Supervision (BLGS)
National Police Commission (NAPOLCOM)
Philippine National Police (PNP)
Philippine Public Safety College (PPSC)
Department of Justice (DOJ)

DOJ Attached agencies
Bureau of Immigration (BI)
Bureau of Corrections (BuCor)
National Bureau of Investigation (NBI)
National Prosecution Service (NPS)
Office for Alternative Dispute Resolution (OADR)
Office of the Secretary General (OSG)
Public Attorney's Office (PAO)
Parole and Probation Administration (PPA)

Judiciary
Supreme Court of the Philippines – Program Management Staff (SCP-PMO)
Court of Appeals (CA)
Sandiganbayan (SB)

PLANNING COMMITTEE ON PEACE, SECURITY AND PUBLIC ORDER

Chair: **Usec. Vicente Agdamag**
National Security Council (NSC)

Member Agencies:

Office of the Presidential Adviser on Peace Process (OPPAP)
Department of Foreign Affairs (DFA)
Department of National Defense (DND)
Department of the Interior and Local Government (DILG)
Philippine National Police (PNP)
National Police Commission (NAPOLCOM)
Philippine Drug Enforcement Agency (PDEA)
Dangerous Drugs Board (DDB)
Philippine Coast Guard (PCG)
Bureau of Fire Protection (BFP)
Commission on Human Rights (CHR)
Philippine Statistics Authority (PSA)
Office of Civil Defense (OCD)
Office of the Cabinet Secretary (OCS)
Department of Justice (DOJ)
Mindanao Development Authority (MinDA)
Autonomous Region in Muslim Mindanao (ARMM)
Bureau of Fisheries and Aquatic Resources (BFAR)
Philippine Commission for Women (PCW)

SUBCOMMITTEE ON PEACE AND DEVELOPMENT

Chair: **Usec. Diosita Andot**
Office of the Presidential Adviser on the Peace Process (OPAPP)

Member Agencies:

Department of National Defense (DND)
Commission on Human Rights (CHR)
National Commission on Indigenous Peoples (NCIP)
National Irrigation Authority (NIA)
Department of Social Welfare and Development (DSWD)
National Security Council (NSC)
Mindanao Development Authority (MinDA)
Autonomous Region of Muslim Mindanao (ARMM)
Department of Public Works and Highways (DPWH)
Department of Agrarian Reform (DAR)
Department of Justice (DOJ)
Department of Agriculture (DA)
National Electrification Administration (NEA)
Department of Education (DepEd)
Philippine Statistics Authority (PSA)

SUBCOMMITTEE ON SECURITY AND PUBLIC ORDER

Chair: **Usec. Catalino S. Uy**
Department of the Interior and Local Government (DILG)

Member Agencies:

National Security Council (NSC)
Department of Foreign Affairs (DFA)
Department of National Defense (DND)
Department of Justice (DOJ)
National Police Commission (NAPOLCOM)
Philippine National Police (PNP)
Philippine Drug Enforcement Agency (PDEA)
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Senate Economic Planning Office (SEPO)
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Schedule of PDP 2017-2022 Consultations

First Plan Steering Committee Meeting	**August 25, 2016**
Second Plan Steering Committee Meeting	**December 21, 2016**
Third Plan Steering Committee Meeting	**January 17, 2017**
Planning and Subcommittee Meetings	**November 2016 - January 2017**
Regional Consultations	
National Capital Region	**December 14, 2016**
Region 1 - Ilocos Region	**November 22, 2016**
Region 2 - Cagayan	**November 23, 2016**
Region 3 - Central Luzon	**November 21, 2016**
Region 4A - CALABARZON	**November 24, 2016**
Region 4B - MIMAROPA	**November 25, 2016**
Region 5 - BICOL REGION	**November 22, 2016**
Region 6 - Eastern Visayas	**November 25, 2016**
Region 7 - Central Visayas	**November 21, 2016**
Region 8 - Western Visayas	**November 22, 2016**
Region 9 - Western Mindanao	**November 24, 2016**
Region 10 - Northern Mindanao	**November 23, 2016**
Region 11 - Southern Mindanao	**November 21, 2016**
Region 12 - Central Mindanao	**November 25, 2016**
Region 13 - CARAGA	**November 21, 2016**
CAR	**November 23, 2016**
ARMM	**November 24, 2016**
Online viewing of draft chapters to solicit public comments	**January 6 - 15, 2017**
NEDA Board Meeting	**February 20, 2017**

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SPECIAL THANKS TO

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United Nations Development Programme (UNDP)