



Bicol Region
Regional Development Plan
2017-2022



Bicol Regional Development Plan 2017-2022

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Foreword



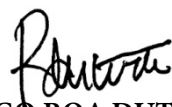
Earlier this year, we launched the **Philippine Development Plan (PDP) 2017-2022** through the initiative of the **National Economic and Development Authority (NEDA)**. The PDP serves as our medium-term blueprint towards attaining a better and more secure life for our people in the next 25 years.

To complement the PDP, we are now launching the **Regional Development Plans (RDPs) 2017-2022**. This will provide direction in policy formulation for the next six years as we steer public and private investments to the regions.

We intend to place regional development at the center of our socioeconomic development strategy. By creating more jobs, improving social services, encouraging innovation and connecting the countryside to growth centers, we will reduce poverty and accelerate development in rural areas.

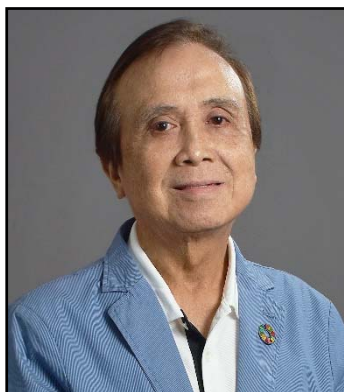
The RDPs will also prioritize accelerating infrastructure development, protecting our natural resources, addressing criminality and illegal drugs, and ensuring peace and security in the regions.

I commend the Regional Development Councils for aligning their respective regional plans to our PDP through fruitful collaboration with local government units and the private sector. I am confident that through the RDPs, we can realize our goal of laying a solid foundation for a stronger and more resilient nation for future generations.


RODRIGO ROA DUTERTE
President
Republic of the Philippines

MANILA
May 2017

Message



With regional and local development being one of the main thrusts of President Rodrigo R. Duterte's socioeconomic development agenda, the Philippine Development Plan (PDP) 2017-2022, the first medium-term plan anchored on a long-term vision (*AmBisyon Natin 2040*), was specifically designed to cultivate growth and reduce inequality between the regions. This can be achieved by directing development to key areas throughout the country and connecting these growth centers to rural areas.

As such, the Regional Development Plans (RDPs), as accompanying documents to the PDP, will be an important tool in guiding both public and private investments that will catalyze growth in the regions. It will also serve as our blueprint in laying down the three main pillars of *Malasakit, Pagbabago, at Patuloy na Pag-unlad* that will help us build a secure, comfortable, and strongly rooted life for all Filipinos by 2040.

I would like to express my gratitude to the Regional Development Councils (RDCs) for their leadership in the crafting of the RDPs, and in coordinating various development efforts in the regions. Finally, we seek the support of our local government units, regional institutions, and private institutions to support the realization of our plans as we venture towards the creation of prosperous, peaceful and resilient communities.

A handwritten signature in black ink, appearing to read 'Ernesto M. Perna'.

ERNESTO M. PERNIA

Secretary of Socioeconomic Planning



Message

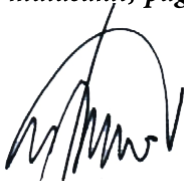
The Bicol region has made significant progress in uplifting the lives of the people over the past six years. The reduction in poverty incidence, underemployment rate, and faster growth in economy were realized through the efforts of the government and private sectors in the implementation of projects in the previous Regional Development Plan (RDP).

As we draw the Bicol RDP for the next six years, we are guided by the long term vision, the *AmBisyon Nation 2040*, to lead us toward attaining the Bicolanos' aspiration for a “*matatag, maginhawa at panatag na buhay para sa lahat*”. It is the first of the four medium-term plans that will embody the long term vision, where each of the succeeding plan will build on the accomplishments of the previous plan. The continuity of good programs and projects will make Bicol and our country stronger and be at par with other Asian region's economic growth and development.

As the highest policy-making body in the region, the Bicol Regional Development Council strongly supports the attainment of the collective long-term vision of the Filipino people for themselves and for the country in the next 25 years. These include the aspirations of the Bicolanos that are also reflective of their values and culture.

Through this Plan, the region will contribute in laying down the foundation for more inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. With the support from all Bicolanos, we will be able to contribute in translating the President's 0 to 10 point Socioeconomic Agenda and the Social Development Goals, and thus achieve a life characterized by “*malasakit, pagbabago, at patuloy na pag-unlad*”.

Dios mabalos.



AL FRANCIS C. BICHARA
Chairperson, RDC 5
Provincial Governor, Albay



PREFACE

The Bicol Regional Development Plan (RDP) 2017 – 2022 serves as the region’s guide in formulating policies and implementing development programs and projects for the next six years. It sets the direction we need to traverse and the outputs we want to achieve toward laying down a foundation for more inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. It is the first of the four medium-term plans anchored on the long term vision - the *AmBisyon Natin* 2040 adopted by President Rodrigo Roa Duterte as a guide for development planning. The formulation of the Plan is in accordance with Memorandum Circular (MC) No. 12, s. 2016 directing the National Economic and Development Authority (NEDA) to coordinate the formulation of the Philippine Development Plan, the Regional Development Plans (RDPs), and their accompanying investment plans for the period 2017-2022. It contains strategies focused on the three main pillars, “*malasakit, pagbabago, at patuloy na pag-unlad*”.

The Bicol RDP 2017-2022 has seven parts and 21 chapters. Part I provides the overall context for the Plan under Chapters 1 to 4. Part II is about enhancing the social fabric to build the foundations for a high-trust society under Chapters 5 to 7. Part III stresses the importance of reducing inequalities in economic development opportunities under Chapters 8 to 12. Part IV focuses on increasing potential growth under Chapters 13 and 14. Part V calls for a supportive economic environment that will enable the economy to sustain growth under Chapters 15 and 16. Part VI is about the foundations for inclusive and sustainable development under Chapters 17 to 20. Finally, Part VII describes the institutional arrangements for implementation and monitoring of the RDP – making sure that the Plan gets implemented and timely adjustments are done where necessary as discussed in Chapter 21. In the process of its preparation, regional and provincial consultations, workshops, and writeshops were conducted with our partners from the government and private sectors. Strategies were derived and translated into doable programs and projects that were included in the 16 chapters of the Bicol RDP.

We look forward to the participation and contribution of all Bicolanos in the implementation of the Bicol RDP 2017-2022. Their support will be crucial in turning our aspirations for a “*matatag, maginhawa, at panatag na buhay para sa lahat*”. To all those who took part in crafting the RDP, my utmost gratitude. *Mabalos asin padagos na pag-uswag!*


AGNES M. ESPINAS

RDC Vice Chairperson and
NEDA Regional Director, Bicol Region

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`

The Vision: *AmBisyon Natin 2040*

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 presents a picture of the future, a set of personal life goals as well as ideals for the country. *AmBisyon Natin 2040* describes the kind of life Filipinos want to live, and how the country will be by 2040. For the kind of life they want for themselves, Filipinos want a life that is strongly-rooted, comfortable, and secure: “*matatag, maginhawa, at panatag na buhay para sa lahat*”. This kind of life is described as having enough for their daily needs and unexpected expenses; that they can plan and prepare for their own and their children’s future; and that their families live together in a place of their own, with freedom to go where they desire, protected and enabled by a clean, efficient and fair government. The life envisioned by Filipinos by 2040 reveals middle-class aspirations. Their vision for the country is that “By 2040, the Philippines is a prosperous middle-class society where no one is poor; people live long and healthy lives; and are smart and innovative; and

live in a high-trust society”. It is a society where people are able to live healthy lives; individuals and communities have the ability to withstand natural as well as man-made calamities; the country is a player in the global knowledge economy with its smarter and more innovative people producing high-quality goods and services at competitive prices; the government enjoys the people and business sector’s trust because it is clean, efficient, and service-oriented; and it is a peaceful society where human security is assured.

This long-term vision was adopted as a guide for development planning through Executive Order No. 5, s. 2016 issued by President Rodrigo Roa Duterte on October 11, 2016. It will serve as guide to at least four administrations in defining the specific “route” (plan) through which each administration will achieve the development targets that would lay down the work for the next six-year term. *AmBisyon Natin 2040* will ensure the sustainability and continuity of good policies, programs, and projects beyond the term of a political administration.

The Plan: Bicol Regional Development Plan 2017-2022

Anchored on the *AmBisyon Natin 2040*, the Bicol Regional Development Plan 2017–2022 will serve as the region’s guide in formulating policies and implementing development programs and projects for the next six years. The Plan is prepared in accordance with Memorandum Circular No. 12, s. 2016 issued by the President on October 24, 2016, directing the National Economic and Development Authority to coordinate the formulation of the Philippine Development Plan (PDP), the Regional Development Plans (RDPs) and their accompanying investment plans for the period 2017–2022. It is the first medium-term plan that will aspire towards the attainment of the vision of a “*matatag, maginhawa, at panatag na buhay para sa lahat*” as it lays a stronger foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. The Bicol RDP shall aspire to contribute to the attainment of this goal by addressing the following challenges: (a) reduce the cost of doing business to promote more investments in quality infrastructure, manufacturing, and tourism that will generate high paying and sustainable jobs for Bicolanos; (b) attain high and sustainable economic growth; (c) improve access to education, health, decent housing, and other social services; (d) develop more resilient communities; and (e) produce more competitive local government units (LGUs) and productive business sector. To do these, the Bicol RDP targets a gross regional domestic product (GRDP) of

11.2 percent by the end of 2022; poverty incidence among population reduced to 26.0 percent; and underemployment rate lowered to less than 20.0 percent. To meet these targets, the strategies in the RDP shall be focused on the three pillars of: (a) “*Malasakit*” by enhancing social fabric to regain people’s trust; (b) “*Pagbabago*” by reducing inequality; and (c) “*Patuloy na Pag-unlad*” by increasing potential growth of the economy.

These strategies are translated into major programs and projects that will be implemented within the medium term. Consequently, by the end of 2022, all priority infrastructure projects should have been put in place to further boost the tourism industry and other sectors in the region. Human resources should have been strengthened and made capable to support the needs of the agriculture, industry and services sectors. More LGUs should have been strengthened with good governance and the implementation of the Assistance to Disadvantaged Municipalities (ADM) Program, formerly known as Bottom-up Budgeting (BuB) Program, thus making all areas in the region attractive to investors. Peace and order have been maintained and there are more disaster-resilient communities. The agriculture and fishery sector, being the most vulnerable and where most of the poor families belong, should have been made stronger with the implementation of the Philippine Rural Development Project (PRDP) and the Inclusive Partnership for Agricultural

Competitiveness (IPAC). Likewise, it should have been supported with disaster resilient agricultural infrastructure and facilities.

For the next medium term, the region shall pursue more value adding activities particularly on agriculture and fishery sector. Modernization of agriculture shall be pursued through the promotion, development, and adoption of modern, appropriate, cost-effective, and environmentally safe agricultural and fishery machineries and equipment that will enhance farm productivity and efficiency. The region shall adopt a strategy to develop the agricultural value chain through partnership between agribusiness firms and farmers. The agriculture sector shall be transformed and upgraded from traditional farming to agribusiness or industrial clusters to take advantage of opportunities in abaca, coconut, high value crops, fisheries, livestock, and poultry. This will be supported by agricultural infrastructure with the provision of: (a) disaster-resilient postharvest and irrigation facilities; (b) farm to market roads following the standard of national road; (c) reliable power and water supply systems; (d) investments in farming technologies and training in more advanced farming techniques; (e) research and development (R&D); and (f) financial and technical assistance to *agripreneurs*. The agribusiness development of the region shall be complemented with rural enterprise development program to provide livelihood to the majority of the poor who live in rural areas and rely on agriculture for living.

Tourism shall continue to be the primary growth driver of the region's economy. It is expected to propel the growth of investments in agriculture, manufacturing, construction, electricity and water supply, trade, transportation, and other services. In the next medium term, more new tourism products and destinations shall be developed with strong support from the private sector including local communities. More organized tour packages shall be made accessible to the tourists. Promotion of the region as a premiere destination for Meetings, Incentives, Conferences, and Exhibitions (MICE) shall be intensified to draw more visitors in the region. The region shall be ready by then with (a) more competitive and efficient LGUs; (b) quality infrastructure in place; (c) available skills required by the industry; (d) peaceful and secured communities from criminality, insurgency, and disaster; and (e) competitive and productive business sector. Continuous improvement of accessibility and connectivity shall be pursued with the completion of Libmanan-Naga-Legazpi Freeway that will connect to Quezon toll way, implementation of the Southline of the North-South Railway Project and the Sorsogon-Samar Seamless Corridor Project (also referred to as Matnog, Sorsogon-Samar Island Bridge Project) that will enhance connectivity to Visayas and Mindanao. These are among the priorities articulated in the different chapters of the Bicol RDP.

The Bicol RDP 2017-2022 has seven parts and 21 chapters. Part I provides the overall context for the Plan under

Chapters 1 to 4. Part II is about enhancing the social fabric to build the foundations for a high-trust society under Chapters 5 to 7. Part III stresses the importance of reducing inequalities in economic development opportunities under Chapters 8 to 12. Part IV focuses on increasing potential growth under Chapters 13 and 14. Part V calls for a supportive economic environment that will enable the economy to sustain growth under Chapters 15 and 16. Part VI is about the foundations for inclusive and sustainable development under Chapters 17 to 20. Finally, Part VII describes the institutional arrangements for implementation and monitoring of the RDP – making sure that the Plan gets implemented and timely adjustments are done, where necessary, under Chapter 21.

02 Global and Regional Trends and Prospects

Chapter 2

Global and Regional Trends and Prospects

The Bicol region's economy grew the fastest from 4.3 percent in 2014 to 8.4 percent in 2015, with construction, transportation and tourism, under other services, as the main drivers of growth. Its poverty situation improved with the reduction in the poverty incidence among population from 41.1 percent in 2012 to 36.0 percent in 2015. Its employment rate in October 2016 was estimated at 95.7 percent. These developments were realized through the implementation of economic reforms that the previous administration instituted. The improved government spending enabled the sector to provide funds for higher requirements for infrastructure upgrading and more investments in people through economic and social services.

Recent developments at the global and national level pose new challenges to the Bicol region. The new policies of the current administration, and the emerging international and regional trends provide opportunities and threats to regional development. These provide the environment where Bicol can find its niche given its natural and human resources and where it can sustain its functional roles in the national development. These functional roles are:

a. **As a geothermal energy supplier.** The Bicol Region, having geothermal power plants with aggregate generating capacity of 365.5 megawatts, shall continue supplying electricity to the

Luzon Grid for distribution to the island group. Other potential sources of renewal energy shall be explored with the region's potentials for solar and hydro energy.

b. **As a producer of agricultural commodities.** With the improved technology for disaster risk reduction and climate change adaptation (DRR-CCA) efforts in the region coupled with large areas for agricultural expansion, production of food crops shall be intensified to get a larger market share of the needs in Luzon regions, particularly from its neighbouring regions, the CALABARZON and the National Capital Region. Food commodities shall include rice, vegetables, rootcrops, fruits especially pineapple, marine products, pork, chicken and beef. The agriculture resource-base of the Bicol Region shall be utilized for the development of agri-based industries. Value adding activities for coconut, abaca and pili shall be promoted and crops of high commercial value shall be developed into agri-industries. To sustain its role as a producer of agricultural commodities, the government shall (a) invest in infrastructure in the rural areas where most of the farms are located; (b) infuse investments in R&D to develop climate-smart technologies for a wide range of crops that can be locally adapted; (c) with the ageing farmers, provide

incentives to families who send their children to agricultural schools and universities; and (d) encourage the youth and the Overseas Filipinos (OFs) to engage in agriculture. Agriculture shall be emphasized in the primary and secondary education. The PRDP and IPAC that will support the agriculture and fishery sector shall be pushed through. The region shall take advantage of the opportunities offered by the Association of South East Asian Nations (ASEAN) economic integration where the region has yet to find its niche.

c. As an ecotourism destination.

Tourism continues as the major growth driver of the region's economy. Tourism development fueled the increase in public investments through the construction of roads that improved access to tourist destinations under the Department of Tourism (DOT)-Department of Public Works and Highways (DPWH) Convergence Program and the BuB Program (now Assistance for Disadvantaged Municipalities Program). Upgrading of facilities at the Legazpi Airport and various seaports coupled with public and private investments in tourism-related assets boosted growth in transportation, trade, and construction. Tourism development in the region is also led by the LGUs through the Albay Masbate Sorsogon (ALMASOR) and the Triple C (Camarines Norte Camarines Sur and Catanduanes) alliances. In 2015, the Bicol region registered the highest growth rate in tourism arrival among 17 regions in the country with 867,882 foreign tourists and 3.7 million

domestic tourists. The region is being promoted as a MICE destination. It has hosted several international and national events. For the next six years, as more public investments in infrastructure and other economic and social services are anticipated due to improved government spending, more tourist destinations shall be made accessible and tourism services shall be improved with the community-based ecotourism programs. The construction of the Bicol International Airport (BIA), also known as the South Luzon International Airport, the New Naga Airport Development Project, and tourism road projects under the DOT-DPWH Convergence program shall be continued. New tourism sites and products in the different areas in the region shall be developed. On the part of the private sector, there shall be construction of tourism-oriented establishments like hotels, restaurants, condominium units and malls such as Shoe Mart (SM) in Legazpi City, and Robinsons, Star Mall, and Gaisano Mall in Naga City. These will offer an array of tourism products to both foreign and domestic visitors in the region.

d. As Luzon's gateway to the Visayas and Mindanao.

Bicol's strategic location at the southern tip of Luzon makes it a gateway to the Visayas and Mindanao. The Legazpi and Tabaco Ports, both catering to international vessels, bring Luzon close to having trade and tourism relations with other countries in the Pacific. With an envisioned multimodal transportation system, people are given a choice on their means of mobility. To maintain its role as Luzon's link to other

major islands of the country, there is a need to modernize, expand, and integrate the four modes of transport in the region. Several projects are laid down in the RDP to address this challenge, such as: the South Line of the North-South Railway Project (NSRP) up to Matnog, Sorsogon; the Quezon-Bicol Expressway project (QueBEx); the Sorsogon-Samar Seamless Corridor Project, airports and seaports upgrading.

- e. **As international gateway.** The region will play the role as an international gateway with the completion of the Bicol International Airport and the upgrading of Legazpi and Tabaco Ports to international standards. These developments shall provide the region easy access to and from the global markets in terms of marketing its products and even promoting investments and tourism.

The region's performance and roles in development may also be affected by international and national policies and developments. Some push or pull factors are as follows:

- a. **Weakening of the peso against the dollar.** While other Asian currencies have strengthened against the dollar, the Philippine peso hit a more than 10-year low which may benefit the region's exporters but to the disadvantage of the importers.
- b. **American's First Policy.** The employment in business process outsourcing, whose clients are mainly companies from the United States of America (USA), is threatened by the US President's policy to bring back jobs to America not only in manufacturing but also in services sector.
- c. **Demand for migrant workers.** The ageing workforce in advanced economies will support the demand for migrant workers from the Philippines and from the region particularly in the fields of medicine, engineering, and other technical and/or vocational work.
- d. **Foreign investment policies.** Foreign investments may come in as the economic provisions in the Philippine constitution become lenient to open more opportunities for the tourism industry in the region.

03

Overlay of Economic Growth, Demographic Trends, and Physical Characteristics

Overlay of Economic Growth, Demographic Trends, and Physical Characteristics

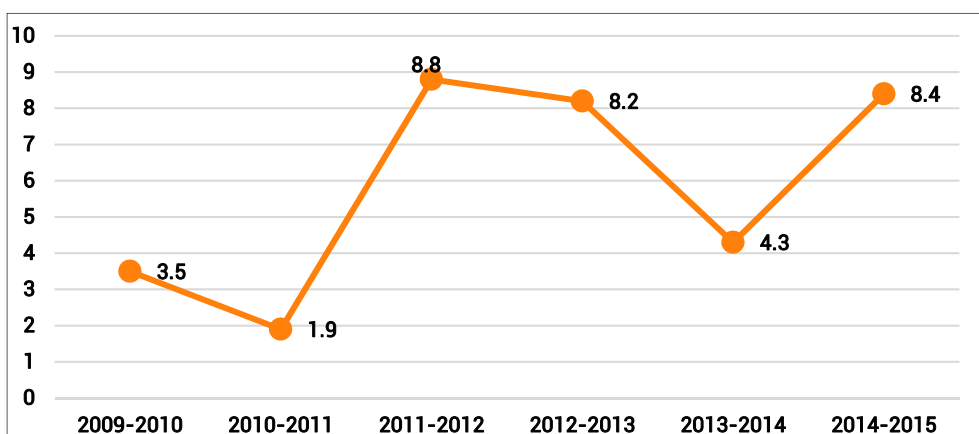
The Bicol RDP 2017-2022, which takes off from the current Administration's 0 to 10 Socioeconomic Agenda, shall pursue the realization of inclusive development that is anchored on the *AmBisyon Natin 2040: matatag, maginhawa, at panatag na buhay*. It defines the desired spatial distribution of human activity in the country based on economic, social, institutional, and environmental conditions.

Economic Trends

The region's economy, as measured by the GRDP, grew at an average rate of 5.8 percent from 3.5 percent in 2010 to 8.4 percent in 2015 (Figure 3.1). Services accounted for the biggest share of the region's economy with an average share of 56 percent over a six-year period, followed by agriculture, hunting, forestry

and fishery (AHFF) at 24 percent, and industry at 20 percent (Table 3.1). The AHFF share to the total economy continued to decline from 26 percent in 2010 to 24 percent in 2015. The decline in AHFF was absorbed by the industry sector which has been increasing since 2012.

Figure 3.1 GRDP Growth Rate, Bicol Region: 2010-2015
(At Constant 2000 Prices, In Percent)



Source: Philippine Statistics Authority (PSA) Region 5

Table 3.1 Sectoral Share to GRDP by Industrial Origin, Bicol Region: 2010 – 2015
(At Constant 2000 Prices, in Million Pesos)

YEAR	AFF	SHARE OF AHFF (%)	INDUSTRY SECTOR	SHARE OF INDUSTRY (%)	SERVICES SECTOR	SHARE OF SERVICES (%)	TOTAL
2010	29,260,587	26	21,541,759	19	63,307,477	55	114,109,823
2011	29,494,292	25	20,990,992	18	65,765,468	57	116,250,752
2012	32,048,813	25	24,098,478	19	70,347,789	56	126,495,080
2013	33,435,151	24	26,752,678	20	76,664,290	56	136,852,119
2014	33,795,368	24	28,175,125	20	80,793,088	56	142,763,581
2015	33,010,621	21	34,839,142	23	86,859,774	56	154,709,537
Average	31,840,805	24	26,066,362	20	73,956,314	56	131,863,482

Source: PSA Region 5

The economy recorded the fastest growth in 2012 and 2015 at 8.8 percent and 8.4 percent, respectively. The unprecedented growth in 2012 from 1.9 percent in the previous year was brought about by the remarkable growth in the industry sector to 14.6 percent from a 2.6 contraction in 2011. Likewise, the industry sector grew from 5.3 percent in 2014 to 23.7 percent in 2015 as shown in Figure 3.2. Although it contributed the least in GRDP, the industry sector grew the fastest at an average rate of ten percent, followed by the services sector at six percent and AHFF at two percent (Table 3.2). The contributors to the industry growth were Manufacturing, Construction and Electricity, Gas and Water Supply, which grew at an average rate of 13 percent, 12 percent and ten percent, respectively. Mining subsector grew at an average rate of 1.8 percent, from a remarkable growth of 17.8 percent in 2010. There were three years in between (2011, 2013 and 2014) when the mining subsector posted a contraction. In 2015, it was able to rebound to 8.5 percent from negative 19.1 percent in 2014.

In 2013, despite the region's setbacks brought by the down-trend in mining and the frequent occurrence of weather disturbances like tropical cyclones, the Bicol region was able to maintain its growth as GRDP grew by 8.1 percent. All subsectors manifested faster growth except mining and quarrying.

In 2014, the region's economy expanded by only 4.3 percent, slower by 3.9 percentage points from the preceding year. All the major sectors registered slower growth: the industry sector grew by 5.3 percent from 11 percent in the previous year, services slowed down at 5.4 percent from nine percent, while AHFF barely managed to stay afloat at one percent from a 4.3 percent growth in 2013. Among the subsectors, fishing and mining and quarrying posted negative growth at 1.1 percent and 19.1 percent, respectively (Table 3.2).

In 2015, the region's economy grew the fastest among all regions of the country at 8.4 percent which is almost double the growth of 4.3 percent in 2014, and more than the 6.7 percent plan target.

**Table 3.2 GRDP Growth Rate by Industry and Sub-Industry, Bicol Region:
2010 – 2015 (At Constant 2000 Prices, In Percent)**

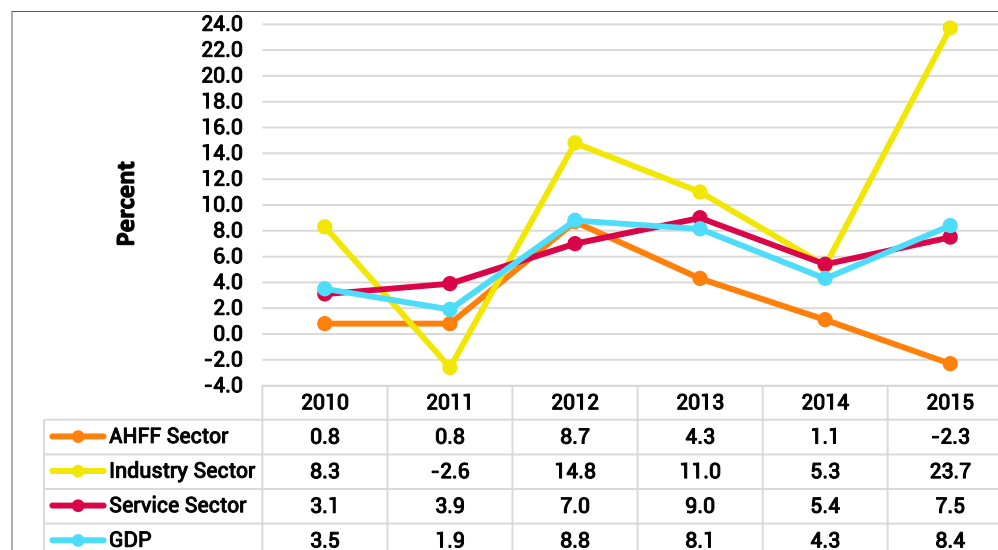
INDUSTRY/YEAR	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	AVE. GROWTH RATE
I. AGRICULTURE, HUNTING, FORESTRY AND FISHING	0.8	0.8	8.7	4.3	1.1	(2.3)	2.2
a. Agriculture and Forestry	5.9	1.2	2.3	5.3	1.9	0.4	2.8
b. Fishing	(11.9)	(0.5)	28.3	2.0	(1.1)	(9.4)	1.2
II INDUSTRY SECTOR	8.3	(2.6)	14.8	11.0	5.3	23.7	10.1
a. Mining and Quarrying	17.8	(4.0)	13.0	(5.4)	(19.1)	8.5	1.8
b. Manufacturing	14.6	24.4	5.0	9.6	19.0	3.7	12.7
c. Construction	4.7	(12.6)	22.4	15.1	1.9	39.7	11.9
d. Electricity, Gas and Water Supply	7.3	3.2	9.3	13.2	14.7	13.9	10.3
III SERVICE SECTOR	3.1	3.9	7.0	9.0	5.4	7.5	6.0
a. Transportation, Storage & Communication	1.4	6.5	9.2	5.2	3.9	10.1	6.1
b. Trade and Repair of Motor Vehicles, Motorcycles, Personal and Household Goods	12.2	3.3	9.7	11.5	10.1	7.7	9.1
c. Financial Intermediation	0.5	(0.1)	10.9	14.7	7.5	7.1	6.8
d. Real Estate, Renting and Business Activities	1.8	3.5	2.8	17.2	3.5	3.2	5.4
e. Public Administration and Defense; Compulsory Social Security	5.6	0.2	4.7	4.4	5.6	2.7	3.9
f. Other Services	0.3	7.0	6.2	4.1	3.7	12.1	5.6
GROSS DOMESTIC PRODUCT	3.5	1.9	8.8	8.2	4.3	8.4	5.8

Source: PSA Region 5

The growth of the region's economy was driven by the industry sector which accelerated from 5.3 percent in 2014 to 23.7 percent in 2015 as shown in Figure 3.2. The services sector also grew faster from 5.4 percent in 2014 to 7.5 percent in 2015, while the AHFF sector contracted by 2.3 percent in 2015 from a 1.1 percent growth in 2014.

Services contributed the biggest share to the region's economy with 56.1 percent, but its share declined from 2014 by 0.5 percentage point. Industry's share of 22.5 percent in 2015 improved by 2.8 percentage points from 19.7 percent in 2014. The AHFF contributed 21.3 percent, but its share to the total economy declined by 2.4 percentage points.

Figure 3.2 Gross Value Added and Percent Growth Rate of Major Industry, Bicol Region: 2010–2015 (at Constant 2000 Prices, in Percent)



Source: PSA Region 5

The accelerated growth of the industry sector was fueled by Construction which grew from 1.9 percent in 2014 to 39.7 percent in 2015. Mining and quarrying rebounded to 8.5 percent from a contraction of 19.1 percent in 2014. The growth in manufacturing, on the other hand, decelerated from 19 percent in 2014 to 3.7 percent in 2015.

The growth in the services sector was led by the expansion of Other Services and Transportation, Storage and Communication. The expansion of Other Services from 3.7 percent to 12.1 percent was fueled by the increase in tourist arrival by 21.5 percent from 3.7 million in 2014 to 4.5 million in 2015.

This includes about 868,000 foreign tourists and 3.6 million domestic tourists.

The Bicol region is basically an agri-based economy. Table 3.3 shows that the economy of the Bicol region, as compared to the national, was stronger in AHFF with an average location quotient¹ of 2.2. Among the subsectors, the region's fishing industry led with a LQ of 3.2, followed by agriculture and forestry with two. This indicates that the region was producing AHFF products more than what it needs, thus, the region is an exporter of agri-based and marine products. The region was also stronger in mining and quarrying registering a LQ of 2.0. This was brought about by

¹Location quotient (LQ) is a tool to quantify and determine how concentrated a particular industry is in a region as compared to the nation. It reveals what makes a particular region "unique" in comparison to the national average. When the location quotient using the GRDP equals 1, that means the national economy is equal to the regional economy for that sector. Therefore, supply is just equal to demand. If LQ is less than 1, the output of the region is not sufficient to meet the local demand and imports are needed. If LQ is more than 1 the output of the region is more than sufficient to meet the local demand and exporting the surplus is an option.

mineral production of several large mining companies present in the region such as Rapu-rapu Minerals, Inc.; Ibalong Resources and Development Corporation; UBS Marketing Corporation, all in Albay; Filminera Resources Corporation in Masbate; and other small mining companies in Camarines Norte and Camarines Sur. Most of these mining companies, however, are no longer operating, except for Filminera in Masbate.

Table 3.3 Location Quotient using GRDP by Sector, Bicol Region: 2009 to 2015
(At Constant 2000 Prices)

INDUSTRY	2009	2010	2011	2012	2013	2014	2015	AVE-RAGE
Agriculture, Hunting, Forestry and Fishing	2.10	2.21	2.21	2.29	2.33	2.36	2.25	2.25
a. Agriculture and Forestry	1.89	2.09	2.06	1.99	2.05	2.08	2.03	2.03
b. Fishing	2.90	2.67	2.82	3.57	3.57	3.60	3.25	3.20
Industry Sector	0.57	0.58	0.56	0.59	0.59	0.59	0.67	0.60
a. Mining and Quarrying	2.07	2.27	2.08	2.25	2.08	1.53	1.65	1.99
b. Manufacturing	0.11	0.12	0.14	0.14	0.14	0.16	0.15	0.14
c. Construction	1.70	1.62	1.59	1.61	1.68	1.62	2.03	1.69
d. Electricity, Gas and Water Supply	1.20	1.22	1.27	1.30	1.39	1.56	1.65	1.37
Service Sector	0.99	0.99	1.00	0.98	0.99	1.00	0.98	0.99
a. Transport, Storage & Communication	1.28	1.34	1.39	1.39	1.37	1.36	1.35	1.37
b. Trade and Repair of Motor Vehicles, Motorcycles, Personal and HH Goods	0.44	0.47	0.48	0.48	0.50	0.53	0.52	0.49
c. Financial Intermediation	1.06	1.01	0.97	0.98	0.99	1.00	0.98	1.00
d. Real Estate, Renting & Business Activities	0.99	0.98	0.95	0.90	0.96	0.93	0.87	0.94
e. Public Administration & Defense; Compulsory Social Services	1.78	1.84	1.84	1.79	1.80	1.86	1.85	1.82
f. Other Services	1.28	1.23	1.27	1.23	1.21	1.23	1.25	1.24

Source: Bicol RSDF

The region was also stronger in other subsectors compared to the national average, except for manufacturing (LQ = 0.14) and trade and repair of motor vehicles, motorcycles, personal and HH goods (LQ = 0.53). These subsectors were: Public Administration and Defense, Compulsory Social Services; Construction; Other Service; Transportation; Storage and Communication; Electricity, Gas, and Water Supply; Financial Intermediation; and Real Estate, Renting and Business activities.

The low LQ in manufacturing explains why the region needs more manufacturing industries that can provide more quality jobs to the

Bicolanos. This need was articulated in the Bicol Regional Development Plan 2011 to 2016, and is being reiterated in the RDP 2017-2022.

Demographic Trends

Based on the 2015 Census of Population, Bicol region reached 5,796,989 and accounted for about 5.7 percent of the Philippine population in 2015. This is higher by about 377 thousand compared with the population of 5.4 million in 2010, and by 1.1 million compared with the population of 4.69 million in 2000. The population of the Bicol region increased at an average rate of 1.29 percent during the period 2010 to 2015. By comparison, the rate at which the region's population grew during the period 2000 to 2010 was higher at 1.46 percent.

Among the six provinces, Camarines Sur had the biggest population in 2015 with

1.95 million, followed by Albay (1.31 million), Masbate (892 thousand), Sorsogon (793 thousand), and Camarines Norte (583 thousand). Catanduanes had the smallest population with 261 thousand. In terms of growth, Camarines Norte was the fastest growing province in the region with an average annual population growth rate (PGR) of 1.38 percent during the period 2010 to 2015. It was followed by Camarines Sur (1.32%), Sorsogon (1.3%), Masbate (1.28%), and Albay (1.22%). Catanduanes posted the lowest PGR of 1.11 percent. Table 3.6 presents the population and the rate of growth of population of the provinces.

Table 3.4 Population and Population Growth Rate by Province: Bicol Region: 2000, 2010, and 2015

PROVINCE	POPULATION (IN THOUSANDS)			POPULATION GROWTH RATE	
	2000	2010	2015	2010-2015	2000-2010
Albay	1,091	1,233	1,315	1.22	1.23
Camarines Norte	471	543	583	1.38	1.44
Camarines Sur	1,552	1,822	1,953	1.32	1.62
Catanduanes	215	246	261	1.11	1.35
Masbate	708	835	892	1.28	1.66
Sorsogon	651	741	793	1.30	1.31
Total	4,688	5,420	5,797		

Source: PSA Region 5

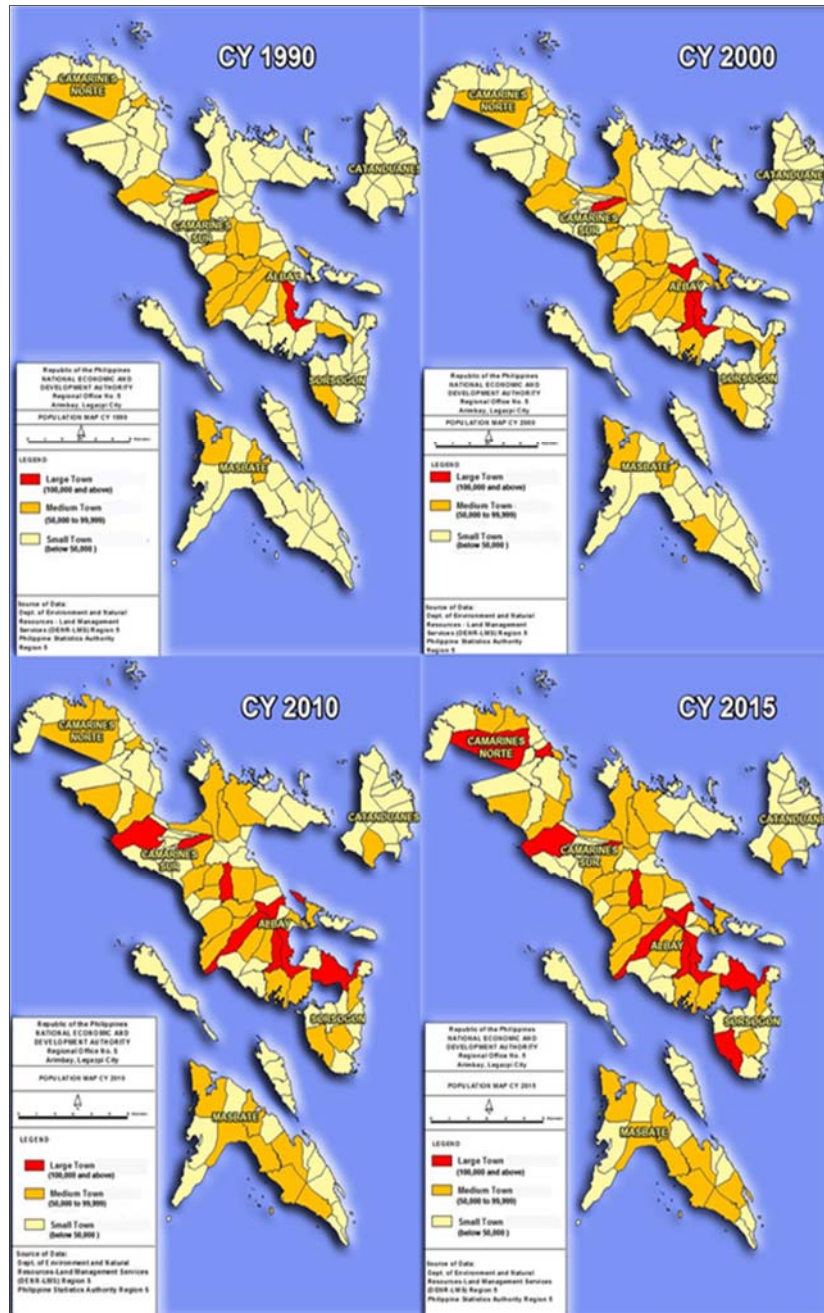
Among the cities and municipalities in the region, the largest in terms of population size is Legazpi City, Albay

with 196,639 persons. It was followed by Naga City, Camarines Sur (196,003) and Sorsogon City, Sorsogon (168,110). The

least populous municipalities were Gigmoto (8,368 persons) and Panganiban (9,287), both in Catanduanes; and San Vicente in Camarines Norte (10,396).

Figure 3.3 shows the population maps of the Bicol region based on the 1990 to 2015 population data.

Figure 3.3 Population Map, Bicol Region: 1990, 2000, 2010, and 2015



Source: Bicol RSDF

The cities and municipalities are grouped into three tiers according to population size, to wit: Large Town (with population from 100,000 and above); Medium Town (with population from 50,000 to 99,999); and Small Town (with population less than 50,000).

In 1990, regional population was recorded at 3.92 million wherein 33 percent were accounted for the province of Camarines Sur followed by Albay (23%); Masbate (15%); Sorsogon (14%); Camarines Norte (10%); and Catanduanes (5%). Most of the municipalities (94 out of 115²) fell under the category of small towns. Among these small towns, the municipality of Camalig recorded the highest population at 49,975 while the municipality of Gigmoto recorded the lowest population at 6,487 persons. Of the remaining 21 municipalities, 19 fell under the category of medium towns. Under this tier, Tabaco City recorded the highest population at 85,697 while the municipality of Pili recorded the lowest population at 52,481. Meanwhile, the cities of Legazpi and Naga, the Bicol's major cities, recorded the highest population in the region at 121,116 and 115,329, respectively, making them the only towns to fall under the large town category.

In 2000, regional population reached 4.69 million. As the population of Bacacay, Camalig, Pilar, Bula, Virac, Sipocot, Tinambac, Gubat, and Cawayan reached

more than 50,000, the number of municipalities under the medium town category increased to 23 percent from 17 percent in 1990, while the number of municipalities belonging to small town category declined from 82 percent in 1990 to 74 percent. Large town category, on the other hand, increased by 50 percent as the population of Tabaco City and Daraga, previously belonging to medium town category, reached more than 100,000.

In 2010³, the population of Bicol was recorded at 5.42 million. The number of municipalities under small town category further shrunk to 63 percent as the population of Goa, Jose Panganiban, Placer, Baao, Ragay, Uson, Paracale, Castilla, Milagros, Lagonoy, Irosin and Tiwi reached more than 50,000, which resulted to the increase in the number of municipalities under the medium town category by seven percentage points compared to 2000 data. Meanwhile, the number of municipalities under large town category doubled after ten years. Among the provinces, Albay had the highest number of cities and municipalities belonging to large town category (Legazpi City, Tabaco City, Daraga, and Ligao City) followed by Camarines Sur (Naga City, Iriga City, and Libmanan); and Sorsogon (Sorsogon City). The combined population of the municipalities of Bacon and Sorsogon by virtue of Republic Act 8806 included Sorsogon City under the large town category.

² Unmerged municipalities of Bacon and Sorsogon.

³ Total number of cities/municipalities in Bicol was reduced from 115 to 114 by virtue of Republic Act 8806, an act creating the city of Sorsogon by merging the municipalities of Bacon and Sorsogon in the province of Sorsogon.

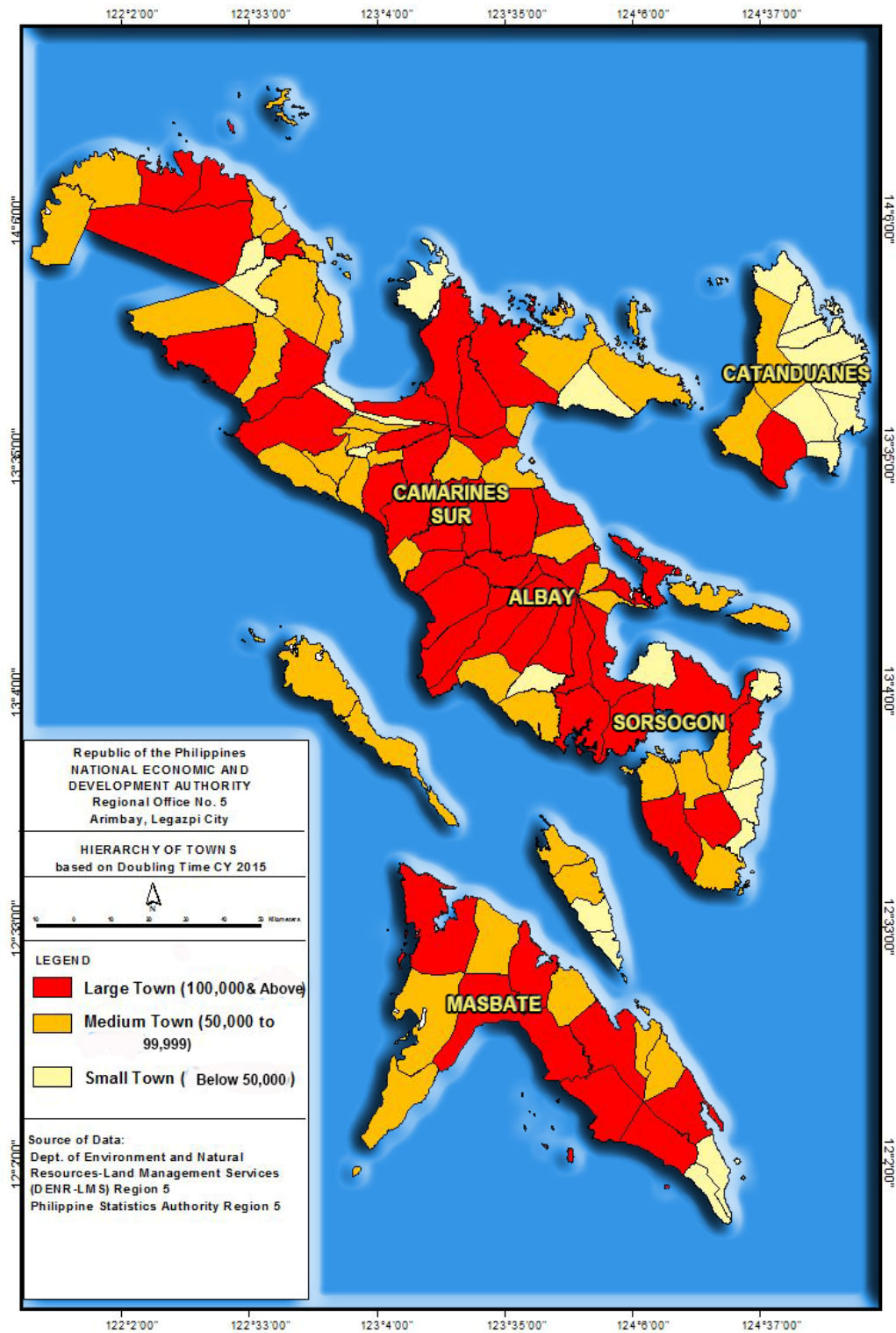
In 2015, the municipalities of Bato in Camarines Sur, Cataingan, Mercedes, Minalabac, and Tigaon were added in the medium town from small town category in 2010. Municipalities of Daet, Labo, and Bulan, on the other hand, emerged into a large town category from medium town in 2010.

In the span of 25 years, from 1990 to 2015, the population of the region increased by 1.89 million with an approximate growth rate of 1.59 percent. Among the provinces, Camarines Sur recorded the highest number of population followed by Albay, Masbate, Sorsogon, and Catanduanes. Since then, Legazpi City recorded the highest population in the region followed by Naga City, while Gigmoto recorded the lowest number of population. It was noted that the movement of population is mostly towards cities and municipalities where development and economic opportunities are active. Accessibility to various services and facilities also influences the population growth in each city and municipality. Considering that (a) the large number of young population in the region is reproductively active or will soon enter reproductive years, and (b) with the recent regional development which may trigger in-migration, it is

expected that in the coming years, population of Bicol will continue to rise. If the 2010 to 2015 population growth rate of 1.35 percent in the region will continue, Bicol's population of 5.8 million is expected to double in 51 years. In the span of 50 to 54 years, the combined population of Camarines Sur and Albay, the provinces with the largest population in the region, will exceed the 2015 regional population. Likewise, the combined population of the seven cities in the region in the next 30 to 64 years may exceed the 2015 population of Camarines Sur which is 1.95 million. The population of Legazpi City, the most populous town in the region, may exceed the 2015 population of the province of Catanduanes in the next 45 years (Figure 3.4).

At doubling population, which may take 27 to more than hundreds of years depending on the growth rates of municipalities and cities, 41 percent of towns will fall under the large town category, and 36 percent will emerge into medium town category. In Albay, only Manito and Jovellar will remain as small towns, while all the cities and capital towns of the six provinces will emerge into large town category.

Figure 3.4 Hierarchy of Towns based on Projected Population at Doubling Time



Source: Bicol RSDF

Physical Characteristics

a. **Location.** Bicol is one of the regions in the Luzon island. It is the fifth administrative region under the Integrated Reorganization Plan (IRP) which was implemented through Presidential Decree No. 1 in 1972. Located at the midsection of the country or at the southern tip of Luzon, Bicol lies within coordinates 122 to 124.5 degrees longitude and 12

to 14.5 degrees latitude as shown in Figure 3.5. It is bounded northwest by Quezon province, east by the open seas of the Pacific, southeast by Samar Sea and southwest by Sibuyan Sea. The southeastern most part is the municipality of Gigmoto, province of Catanduanes along the Pacific seaboard (Figure 3.5).

Figure 3.5 Map of the Bicol Region



Source: Bicol RSDf

b. **Politico-Administrative Subdivisions.**

The region is composed of four mainland provinces and two island provinces. It has seven cities and 107 municipalities subdivided into 3,471 barangays. Politically, 16 congressional districts subdivide the region.

c. **Land area.** The region's land area of about 1.8 million hectares is roughly six percent of the country's 30 million hectares. Around 69 percent or two-

thirds of the region's land area is part of mainland Luzon while the rest is the combined land areas of the island provinces of Masbate and Catanduanes. Camarines Sur has the largest land area with around 551 thousand hectares or 43 percent of the regional total while Catanduanes has the smallest with about 149 thousand hectares or eight percent of the region's total land area (Table 3.5).

Table 3.5 Land Area by Province and City, Bicol Region

PROVINCE/CITY	TOTAL AREA (HECTARES)	PERCENT OF REGIONAL TOTAL
Bicol Region	1,811,447	100
Albay	257,491	14.21
Camarines Norte	227,793	12.58
Camarines Sur	551,190	43.00
Catanduanes	149,216	8.24
Masbate	413,856	22.85
Sorsogon	211,901	11.70
Iriga City	13,735	0.76
Legazpi City	16,161	0.89
Ligao City	24,675	1.36
Masbate City	18,800	1.04
Naga City	7,740	0.43
Sorsogon City	27,611	1.52
Tabaco City	11,714	0.65

Source: PSA

d. **Topography.** The region's topography can be generally described as ranging from slightly undulating to rolling and from hilly to mountainous. Bicol is endowed with numerous mountains and volcanoes. The most famous, Mt. Mayon in Albay, has the highest elevation at 2,462 meters above sea level. Other volcanoes and mountains dominating the countryside and their corresponding elevations include: Mt. Malinao (1,548 meters), Mt. Masaraga (337

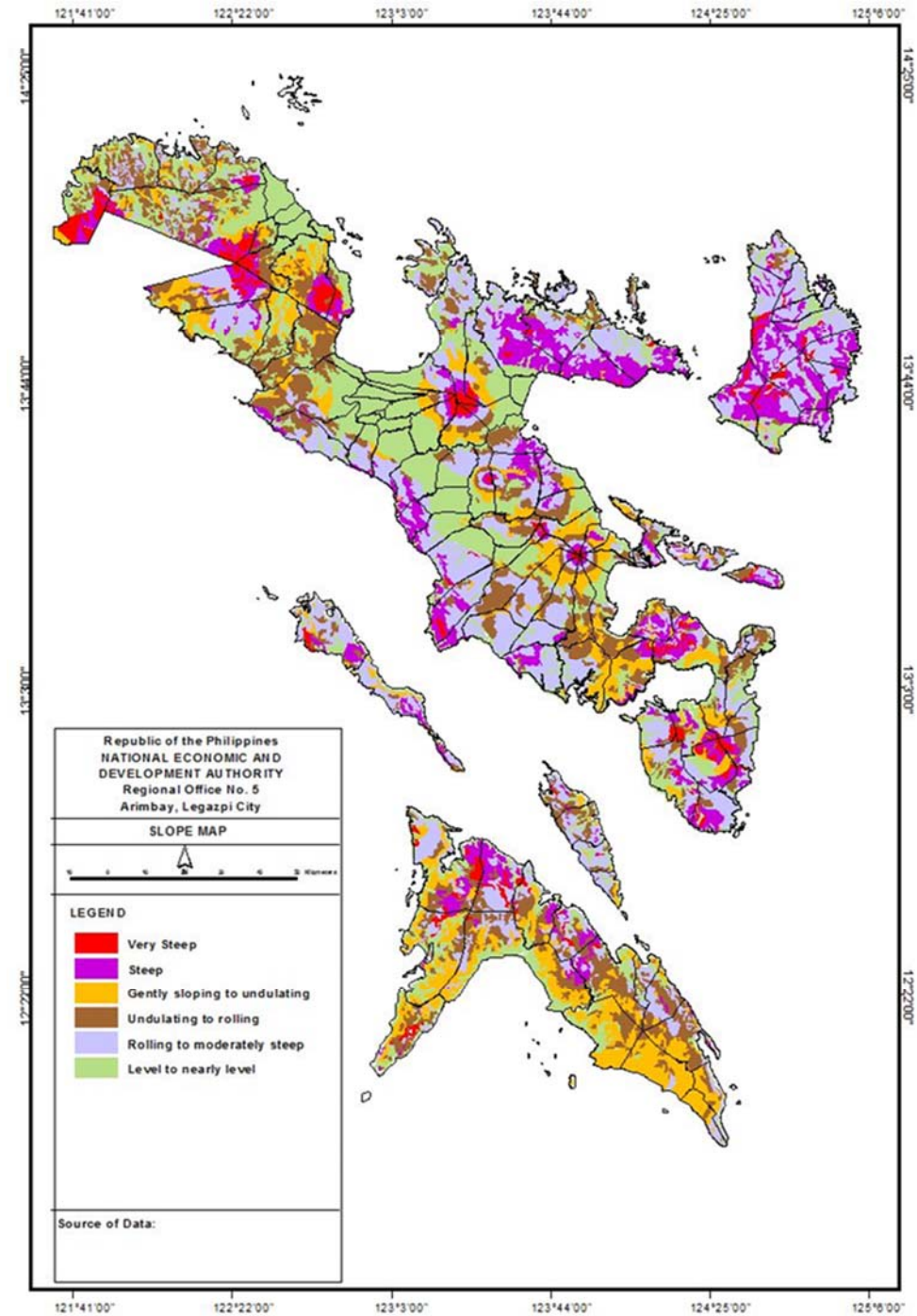
meters) and Mt. Catburawan (473 meters) in Albay; Mt. Isarog (1,966 meters) and Mt. Iriga (1,143 meters) in Camarines Sur; and Bulusan Volcano (1,560 meters) in Sorsogon.

e. **Slope.** About 56 percent of the region's total land area are nearly level to moderately sloping lands (0-18 percent). These are mostly the alluvial plains, mountain footslopes, floodplains and valleys. The remaining 44 percent are mostly hilly

and mountainous (above 18 percent slope) which include the ranges of hills on the western and eastern

section and some mountain peaks on the central part of the region as shown in Figure 3.6.

Figure 3.6 Slope Map of the Bicol Region

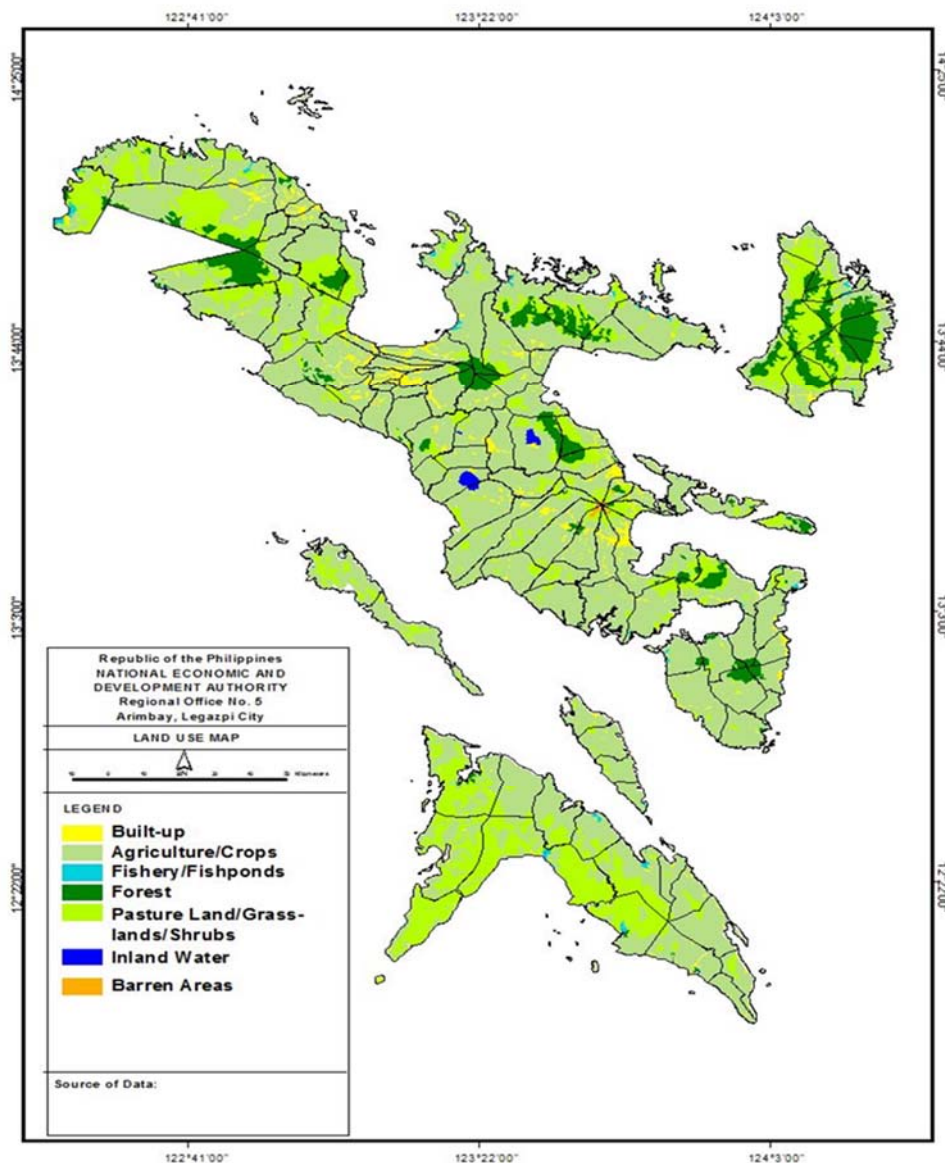


Source: Bicol RSDF

f. **Land Use.** Based on the latest existing land use data from the Department of Environment and Natural Resource in 2013, a total of 1.6 million hectares or 91 percent of land is utilized for other land uses such as agriculture, fishpond, built-up areas and other development activities, while about

163 hectares or nine percent are devoted to forest use. Majority (70%) of Bicol's land area is classified as alienable and disposable. Forest lands account to only 28.74 percent while unclassified forest land is 1.04 percent (Figure 3.7).

Figure 3.7 Land Use Map of the Bicol Region: 2013

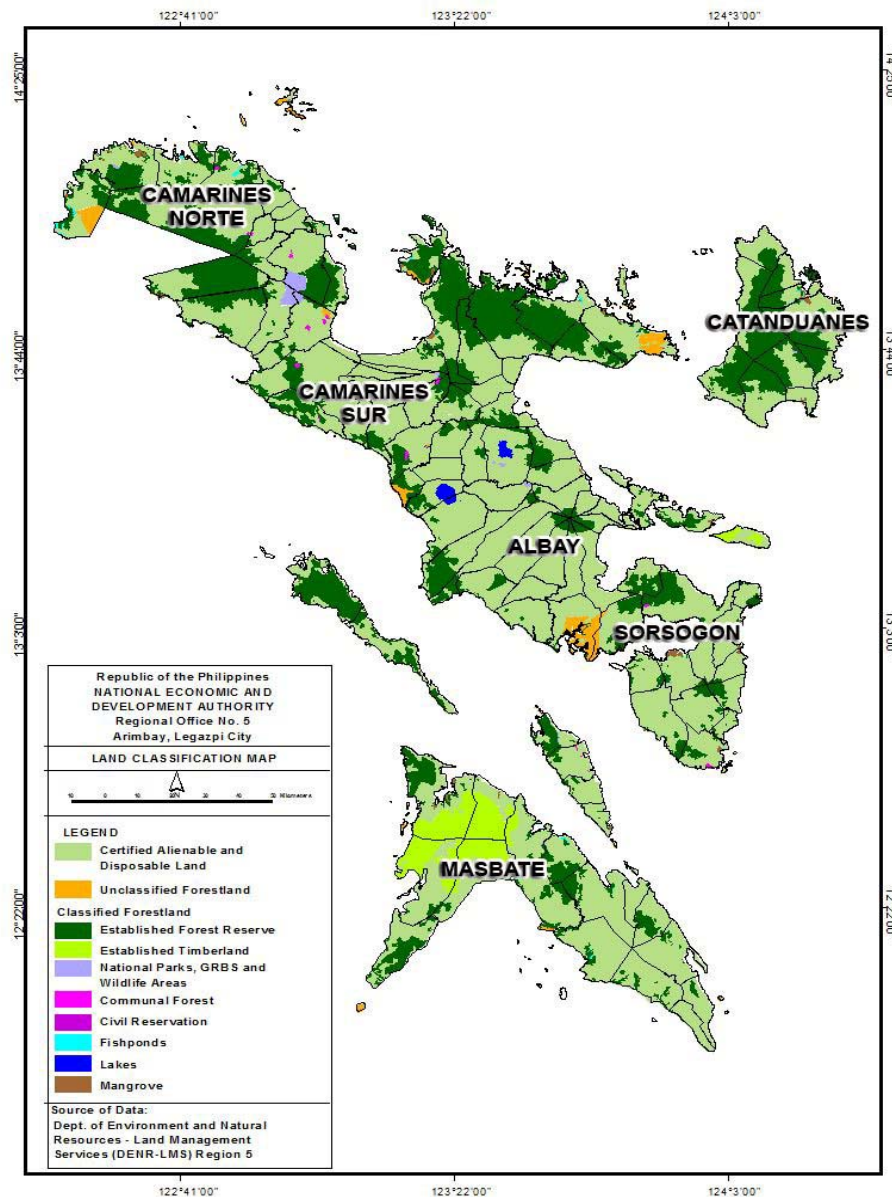


Source: Bicol RSDF

g. **Land Classification.** Majority (70%) of Bicol's land area is classified as alienable and disposable. Forest lands account for only 29 percent while unclassified forest land is one percent (Figure 3.8). There are 91,930 hectares classified as ancestral domain of Indigenous Peoples (IPs) with

certificate of ancestral domain title (CADT). Of this total, 13,926 hectares are for conversion from Certificate of Ancestral Domain Claim (CADC) to CADT; and 26,096 hectares have on-going conversion from CADC to CADT.

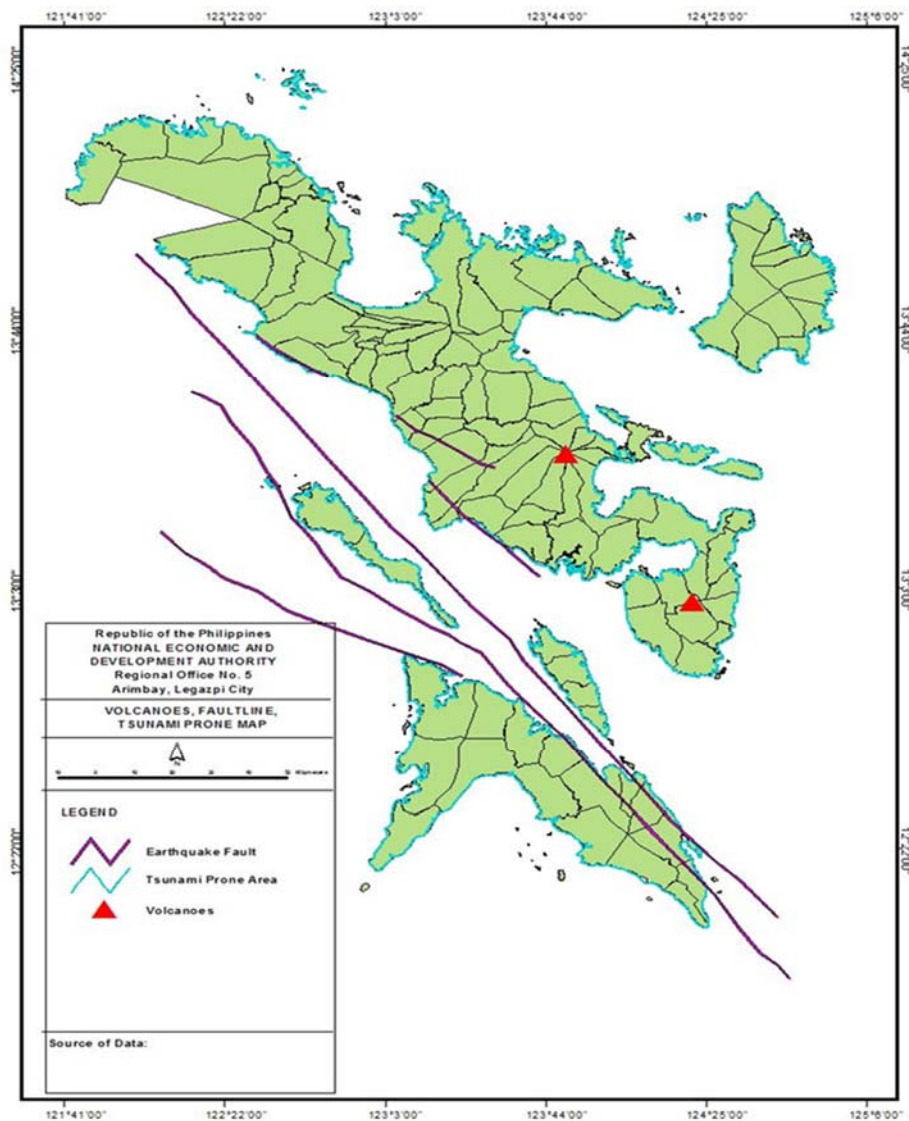
Figure 3.8 Land Classification Map of the Bicol Region



Source: Bicol RSDF

- h. **Coastal Area.** The region's coastal area is deeply embayed. This is characterized by the presence of numerous bays and gulfs. These are: Ragay Gulf, San Miguel Bay, and Lagonoy Gulf outlining the coasts of Camarines Norte and Camarines Sur; Albay Gulf in Albay and Sorsogon Bay in Sorsogon. In addition, the region is endowed with natural
- harbors which serve as refuge for ships during heights of weather disturbances in the vicinity.
- i. **Volcanoes, Faults and Earthquake Zones.** The distribution of faults, volcanic and earthquake belts in the region is shown in Figure 3.9.

Figure 3.9 Distribution of Faults, Volcanic and Earthquake Belts, Bicol Region



Source: Bicol RSDF

A parallelism between the Bicol Volcanic Belt, the Philippine Fault Zone and the deep Philippine trench can be noticed. The Bicol Volcanic Belt or Chain spans a total of 240 kilometers from Camarines Norte in the north down to Sorsogon in the south. A total of 16 volcanoes approximately 24 kilometers apart, lie along the 200 kilometer chain which runs parallel to and west of the Philippine Trench.

j. **Inland Waters, Rivers and Lakes.**

The Bicol River is the largest river in the region and is considered as the main drainage way for the 3,771 hectares major basin area of the Bicol Plains. It originates from streams in the southern and western parts of Camarines Sur and from the southwestern slopes of Mt. Isarog. It meanders generally on a northwest direction from Lake Bato and joins Sipocot River at a point around seven kilometers from its mouth before discharging to San Miguel Bay. Sipocot River, which is a principal tributary of the Bicol River, originates from the northern part of the province and trends southeasterly until it joins the Bicol River. In Camarines Norte, there are two rivers namely Labo and Basud draining to the Philippine Sea with drainage area of 913 and 270 hectares, respectively. For Sorsogon, a network of seven minor rivers consist the province's natural drainage system. The narrowness and topography of the two island provinces contribute largely to the occurrence of numerous short

minor rivers that serve as the drainage channels for ten basin areas in Masbate and three basin areas in Catanduanes. There are numerous lakes, but most have small volume water impounding capacities. The more important freshwater ponds in the region are: Lakes Bato, Baao, and Buhi in the Bicol Plains, and Bulusan and Aguingay in Sorsogon.

k. **Geothermal and Hydrothermal Reservations.**

The Bicol Region has three geothermal reservation areas: (a) Tiwi Geothermal Reservation in Albay – Proclamation No. 739 dated February 1982; (b) Bacon-Manito Geothermal Reservation in Albay – Proclamation No. 2036-A dated November 11, 1980; and (c) Barit River-Lake Buhi Forest Reservation in Camarines Sur – Proclamation No. 573 dated June 26, 1969.

l. **Climate.**

Based on the Modified Corona's climate classification system, three climate types occur over the Bicol Region, as shown in Figure 3.10. Type II is experienced over the eastern coasts of the region directly facing the Pacific Seas including the island of Catanduanes and the whole of Camarines Norte.

m. **Rainfall.**

Majority of the average rainfall in the country is due to the occurrence of tropical cyclones in the vicinity. The southwest and northeast monsoons contribute seven percent each, while the remaining 39 percent is attributed to the combined effects of the Inter-

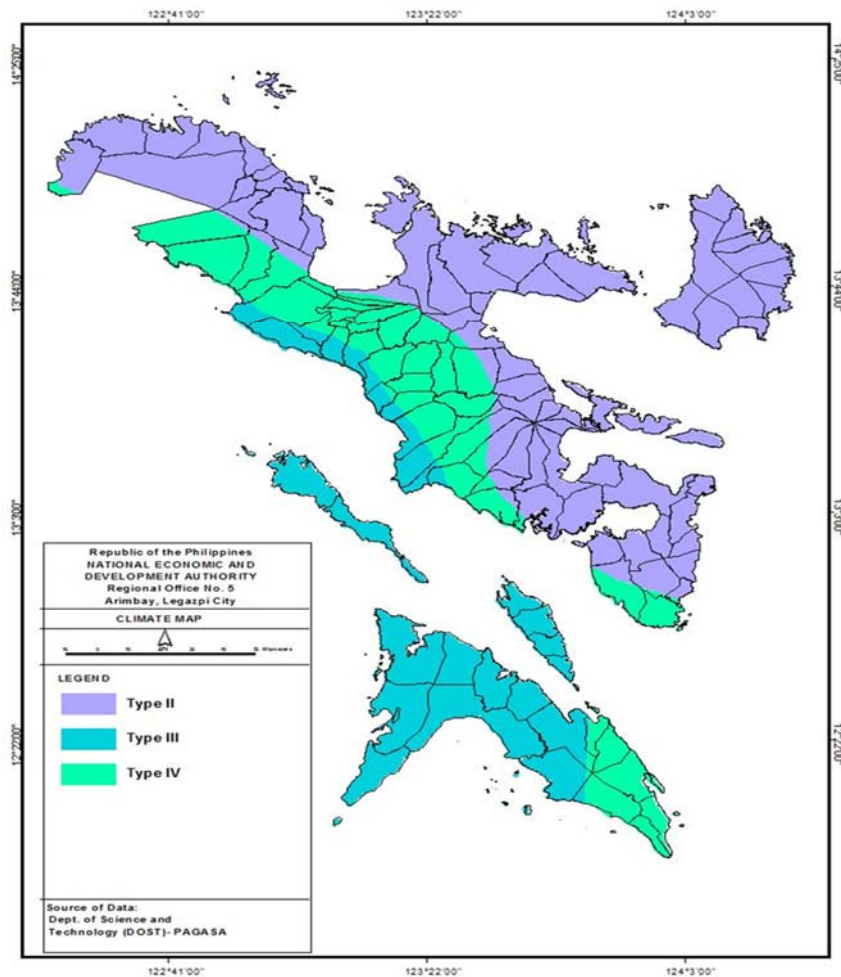
Tropical Convergence Zone, shear lines, easterly waves and other rainfall-causing weather patterns. The average annual rainfall in the region ranges from 1,900 to 3,500 millimeters.

- n. **Wind Velocity/Directions.** The highest normal wind speed observed is four meters per second which passes the region northeasterly. This occurs especially in the months of October to April when northeast

monsoon is dominant air stream over the country.

- o. **Temperature.** The hottest months are May and June while the coldest months are January and February. Higher temperatures are observed in the island provinces particularly in Masbate.
- p. **Humidity.** The annual average humidity is about 82 percent, almost equal to the country's average relative humidity.

Figure 3.10 Climate Map of the Bicol Region



Source: Bicol RSDF

q. **Environmentally Critical Areas.**

Environmentally Critical Areas (ECAs) are areas prone to natural hazards (weather, hydrologic, and geologic). Bicol's ECAs include areas that are subject to seismic hazards, prolonged flooding, tsunamis, volcanic eruption fallouts, and severe erosion.

Flooding. The area mostly flooded is the Bicol River Basin in the provinces of Albay and Camarines Sur. It has a drainage area of about 3,156 square kilometer (sq km), of which some 2,000 sq km are agricultural, and the rest are forests, wetlands, rivers and lakes. The Quinale riverbed of the River Basin area ebbs and flows with materials erupted from Mt. Mayon that flood events wash into the river system. Sand quarrying, a common practice along the river, helps reduce siltation with some 100,000 square meter (m²) of sand taken annually. The increasing backwater effect of the lake during floods also causes the upstream bed level to rise. Settlements, as well as livelihood, are threatened by extensive flooding and inundation.

Volcanic Hazards. The Bicol region has three active volcanoes: Mt. Mayon, Mt. Bulusan, and Mt. Iriga. Materials ejected during

eruptions pose danger to people, infrastructures, farmlands, and properties at the base and midslope of the volcano. The most common hazards are lava flows and base surges. Other dangers are earthquake, tsunamis and seiche and edifice failure. Because of its height, steep slopes and very deep gullies, Mayon Volcano is potentially susceptible to creating an avalanche. It could be triggered by earthquakes, volcanic eruptions, intense rainfall, and magma intrusion.

Erosion. Erosion is a destructive geologic process that wears down land masses and ultimately lowers their surfaces as close as possible to base level – the extension of sea level inland. With time, mountain ranges are destined to become hilly lands and then as rolling plains through river erosion. Rivers erode by down-cutting streambeds, scouring banks, transporting detached soil, mineral and rock fragments, and depositing these detached fragments on floodplains, lakebeds and seabeds. The Bicol region has a total of around 665 thousand hectares affected by erosion, of which 511 thousand hectares were classified as moderate erosion and 154 thousand hectares as severe erosion.

Table 3.6 Main Features of Principal Volcanoes in the Bicol Region

FEATURE	MT. IRIGA	MT. MAYON	MT. BULUSAN
Location	Camarines Sur	Albay	Sorsogon
Latitude	13 degrees 27.4 N	13 degrees 15.4 N	12 degrees 46.2 N
Longitude	123 degrees 27.4 E	123 degrees 41.1 E	124 degrees 03.0 E
Height	1143 meters asl	2462 meters asl	1552 meters asl
Type	Strato-Volcano	Strato-Volcano	Strato-Volcano
Main Rock Type	Basaltic Andesite	Adesite	Andesite
Remarks	Active	Active	Active

Source: Philippine Volcanology and Seismology

Bicol Regional Strategic Framework

The Regional Spatial Development Framework (RSDF) adopts the Luzon Spatial Development Framework (LSDF) formulated in accordance with the National Spatial Strategy (NSS). It focuses on three core strategies of the NSS and LSDF on (a) concentration; (b) connectivity; and (c) vulnerability reduction, taking into consideration the region's role in the LSDF as a primary tourist destination for ecological, agricultural, educational, and medical tourism in the country. The region

shall also serve as: (a) geothermal energy supplier to the Luzon Grid with its aggregate generating capacity of 365.5 megawatts; (b) producer of agricultural commodities and agri-based products using abaca, pili, pineapple, coconut, marine products, and cattle as the prime commodities; (c) an ecotourism destination; (d) gateway to the Visayas, Mindanao and the Pacific; and (e) international gateway through the Bicol International Airport.

Concentration Strategy

Concentration is the distribution of population in existing urban areas and metropolitan centers according to urban hierarchy, and following the principles of densification, compaction, and smart growth. It aims to increase overall densities of settlements in terms of population and economic activities

through agglomeration and economies of scale. It hopes to achieve the following benefits:

- increased innovation, creativity and economic activities, and in particular, greater opportunities for employment and poverty reduction;

- availability of a larger variety and higher levels of services; and
- reduced encroachment into agricultural land and other environmentally-sensitive, constrained or protected areas (compared to low density sprawl).

The proposed hierarchy follows the principle of concentration. Larger settlements in terms of population are positioned in the upper tiers while smaller population centers occupy the lower tiers of the urban hierarchy. The upper tiers have larger hinterlands and provide more advanced urban services (e.g., finance, medical centers, universities, gateway ports, etc.) while the lower tiers have smaller catchment areas and provide basic urban services (e.g., small public markets, rural health units, primary and secondary schools, etc.). However, not all settlements can be fitted in the hierarchy according to this general principle. Smaller settlements especially those identified to have strategic roles (e.g. eco-tourism development, transportation hub, gateway cities, industrial and freeport zones, and science cities, etc.) are placed in the upper levels of the hierarchy. Settlements strategically located in clusters of settlement and whose aggregate population satisfy the population threshold are also placed in the upper tiers.

Data on population density, population growth rates and centrality index were also analyzed to give more bases in

identifying the hierarchy of settlements among cities and municipalities. Cities and municipalities were classified according to (a) highly dense with fast growth and high centrality index areas may be economically vibrant and competitive, however, there could be continuous and strong environmental pressure on its resources; (b) low dense with fast growth and low centrality index areas may have declining economic competitiveness but with low or declining environmental pressure; (c) highly dense with slow growth and high centrality index may be economically vibrant and competitive but with increasing and manageable environmental pressure; and (d) low dense with slow growth and low centrality index areas may have limited economic competitiveness and limited environmental pressure. These cities and municipalities are listed in Table 3.7.

Taking into consideration the different factors stated above, the hierarchy of settlements of the Bicol RSDF was identified. The Bicol network or hierarchy of settlements is a four-tiered hierarchy with Metro Naga and Metro Legazpi as the regional centers. There are 74 sub-regional centers; 169 provincial centers; and 489 local centers. The distribution of these centers are shown in Tables 3.8 and Figure 3.11. The detailed classification of cities and municipalities under the network of settlements is presented in Annex A.

Table 3.7 Classification of Cities and Municipalities Using Population Density, Growth Rates and Centrality Index, Bicol Region

	HIGH CENTRALITY INDEX	LOW CENTRALITY INDEX
HD/FG	Legazpi, Naga, Tabaco, Daet, Pili, Masbate City, Sorsogon City, Ligao, Polangui, Iriga City, Baao, Calabanga, Santo Domingo	Canaman, Tigaon, San Jose, Camaligan, Magarao, Balatan, Ocampo, Malilipot, Bombon, Milaor, Gainza
LD/FG	Virac, Pasacao, Jose Panganiban, Goa	Mandaon, Capalonga, Matnog, San Fernando (CS), Lagonoy, Paracale, Pamplona, Pilar, Sagñay, Ragay, Bula, Baleno, Minalabac, Malinao, Milagros, Castilla, Placer, Donsol, Caramoran, Rapu-Rapu, Mobo, Aroroy, Monreal, San Miguel, Balud, Uson, Dimasalang, Bagamanoc, Lupi, San Pascual, Presentacion, Cawayan
HD/SG	Daraga, Nabua, Bulan, Camalig	Gubat, Tiwi, Bacacay, Cabusao, Talisay, Bato (Cat)
LD/SG	Guinobatan, Labo, Libmanan, Sta. Elena	Bato (CS) , Pio Duran, Sipocot, Batuan, Del Gallego, Caramoan, Tinambac, Libon, San Andres, Siruma, Irosin, Buhi, Magallanes, Cataingan, Basud, Panganiban, Manito, Oas, Pandan, Mercedes, Vinsons, Esperanza, Palanas, Garchitorena, San Jacinto, Juban, Gigmoto, Bulusan, Claveria, Baras, San Vicente, Pio V. Corpuz, Viga, Casiguran, San Lorenzo Ruiz, Prieto Diaz, San Fernando (Mas), Jovellar, Barcelona, Sta. Magdalena

HD – High density; FG – Fast growth; LD – Low density; SG – Slow growth

Source: Bicol RSDF

Table 3.8 Number of Urban Centers in the Proposed Hierarchy of Settlements by Province, Bicol Region

Provinces	Regional Centers	Sub-regional Centers	Provincial Centers	Local Centers
Albay	1	2	8	7
Camarines Norte	-	1	3	8
Camarines Sur	1	2	11	23
Catanduanes	-	1	-	10
Masbate	-	1	5	15
Sorsogon	-	2	5	9
Total	2	9	32	71

Source: Bicol RSDF

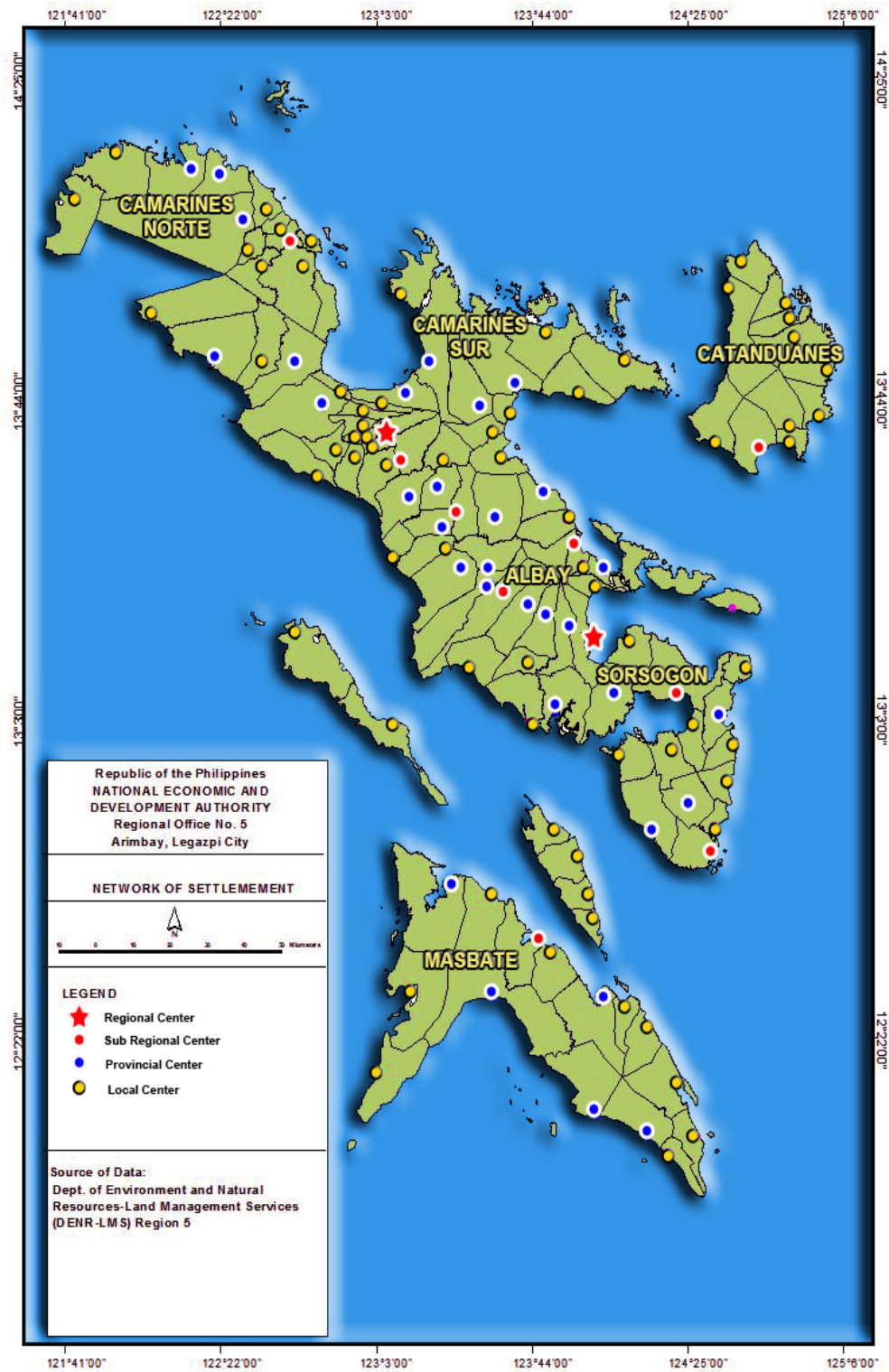
The growth of the Bicol region is anchored on the regional centers, which consist of Metro Naga (an agglomeration of the City of Naga and 14 municipalities in Camarines Sur), and Metro Legazpi (Legazpi City and the municipality of Daraga), which together, form a growth corridor that provides higher urban services, employment opportunities, and linkages to major tourist destinations. This growth corridor is strategically located at the center of the region that shall provide higher level of services

needed by the sub-regional and provincial centers. Metro Naga will serve the provinces of Camarines Norte, Camarines Sur and parts of Catanduanes and Masbate while Metro Legazpi will serve the provinces of Albay, Sorsogon and parts of Catanduanes and Masbate. Metro Legazpi shall be the regional government center. The Naga-Legazpi corridor shall be developed through the implementation of Naga-Legazpi freeway system, Naga-Legazpi Philippine National Railways commuter service, Naga airport, and the BIA.

The region has nine sub-regional centers namely: Daet, Camarines Norte; Iriga City; Ligao City; Masbate City; Matnog, Sorsogon; Pili, Camarines Sur; Sorsogon City; Tabaco City; and Virac. As a first class municipality, Daet supplements the level of services provided by Metro Naga. The Maharlika Highway provides access to visitors from the NCR and to other provincial and local centers such as Basud and Talisay, both in Camarines Norte. Iriga City is strategically located at the heart of Bicol economic growth corridor, complementing Metro Naga in

the north and Metro Legazpi in the south. This sub-regional center has evolved into an eco-tourism, agro-economic, and educational hub. Ligao City is bounded on the north by the municipality of Oas and on the south by the municipality of Guinobatan, both are provincial centers of Albay. Matnog lies to the southernmost tip of the region which serves as the gateway to many islands in Visayas. It is a center for tourism with its saltwater destinations. Masbate City is located at the central part of the archipelago; the city provides access to Visayas and Mindanao provinces. The Tabaco City Terminal Port, with its strategic location and facilities, is classified as an international port. It is also the main point of entry in the region and plays a major role in terms of foreign trade. An economic zone has been identified in the northeast part of Sorsogon City allowing it to become a hub for trade and commerce. The rehabilitation of Virac Port provides better access to goods and services in the province of Catanduanes.

Figure 3.11 Hierarchy of Settlements Map of the Bicol Region



Source: Bicol RSDF

The region has 32 provincial centers with minimum population size of 50,000. These settlements are typically major municipalities of a province that provide urban services to adjacent towns or cluster of settlements. There are 71 local settlement centers that form the lowest level of the hierarchy with population size of less than 50,000. Figure 3.11 shows the network of settlements. It can be

observed that the location of all centers, whether regional, sub regional, provincial, or local centers, are in areas where the national road and ports exist. The Maharlika Highway (AH 26) is the major road traversing the whole Bicol peninsula and it is along this major thoroughfare that settlements and economic activities converged.

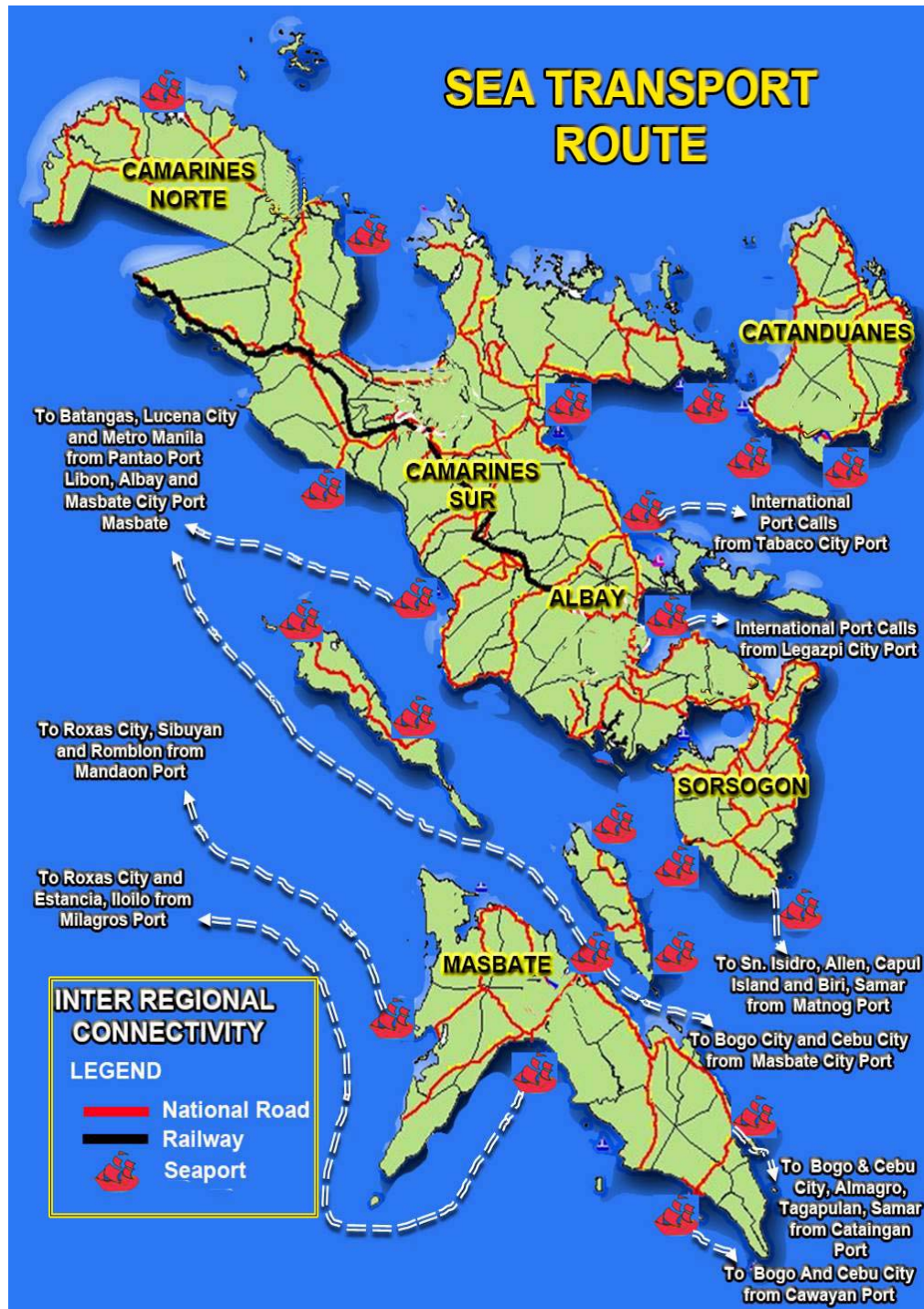
Connectivity Strategy

The connectivity framework for the region aims to enhance the linkages of communication, transportation (land, air, and sea), and economic infrastructure systems to: (a) increase access and improve the efficiency of markets; (b) manage growth and the development of settlements according to specific urban and regional plans; and (c) reduce vulnerability during emergency situations by increasing redundancy of transportation routes, communication and other infrastructure facilities.

With its archipelagic characteristic, the region can interconnect with the different areas of the country through the roll on-roll off (RORO) system (Figure 3.12). It also provides the backbone of land transport system to Visayas and Mindanao through the PNR mainline south and Maharlika Highway (Figure 3.13), and air transport to Manila and Cebu (Figure 3.14). As espoused by the

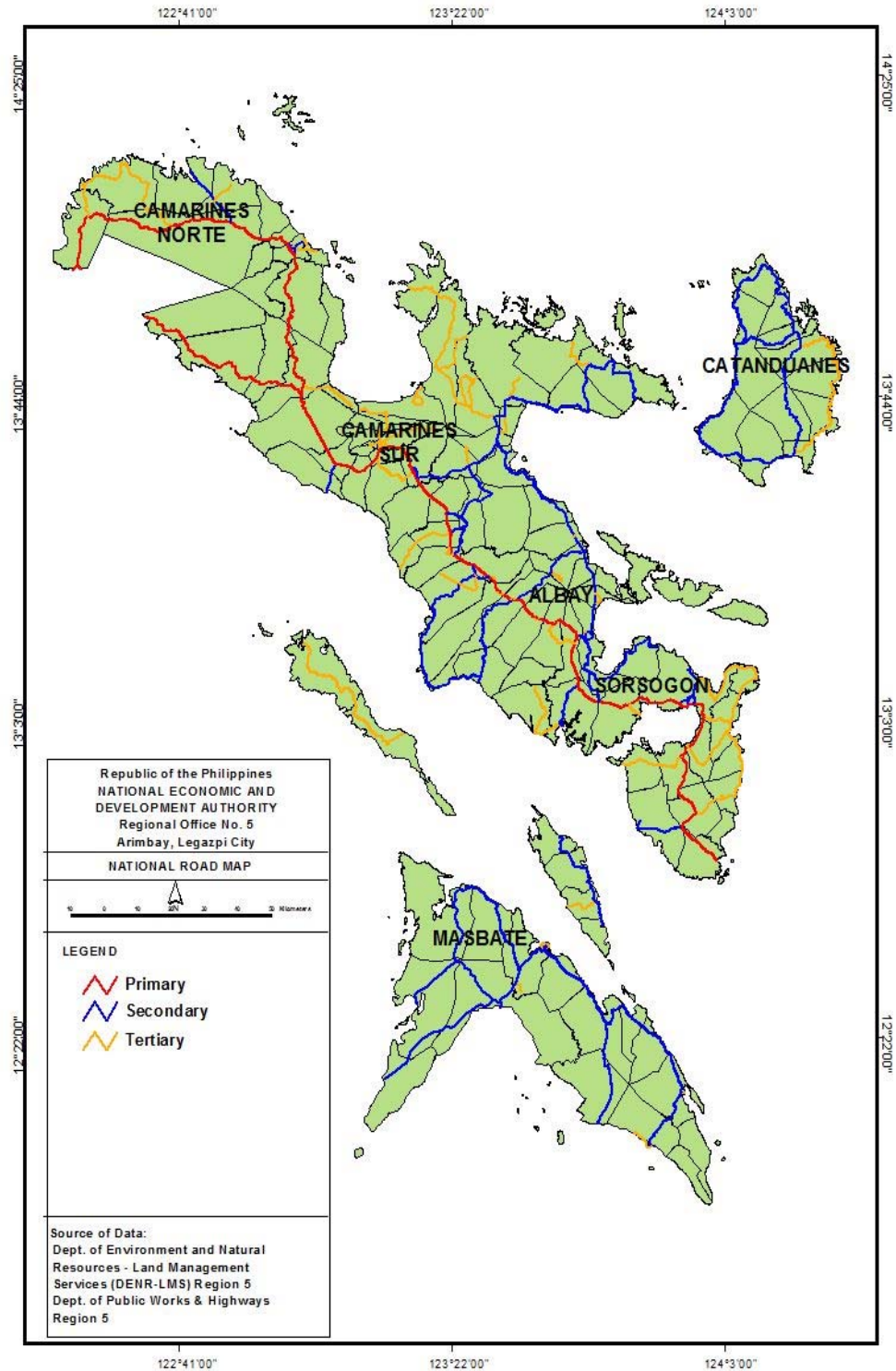
NSS, the use of gravity model to prioritize urban linkages that are intended to further improve the agglomeration of urban areas and improve economies of scale in the market systems shall be adopted by the Bicol RSDF. The NSS envisions a twin spine-three corridor network of settlements. The west and east spines frame the spatial development of Central Luzon-Mega Manila-South Luzon or the Greater Capital Region (GCR) for brevity. The GCR extends upward in Northern Luzon and downward in the Mimaropa-Bicol area. The spines then move further south onto Visayas where they converge with Metro Cebu - via Sorsogon, and Masbate in Bicol, and then branch off into three corridors that cover Mindanao. Access and circulation between and among the different sub-regional, provincial, and town centers will be facilitated through the development of backbone, lateral, and strategic all-access roads (Figure 3.15).

Figure 3.12 Sea Transportation Route Map of the Bicol Region



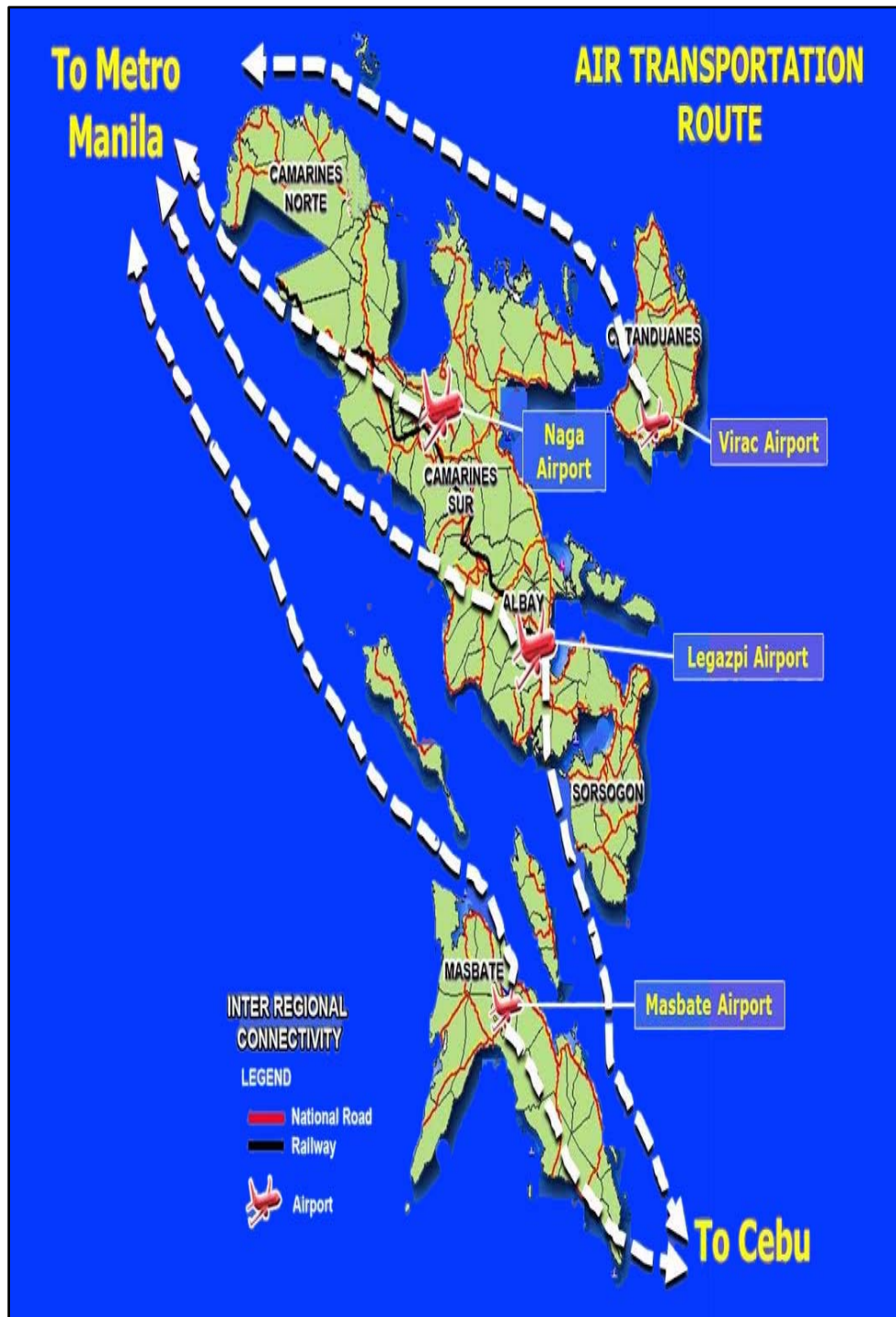
Source: Bicol RSDF

Figure 3.13 Road Network Map of the Bicol Region



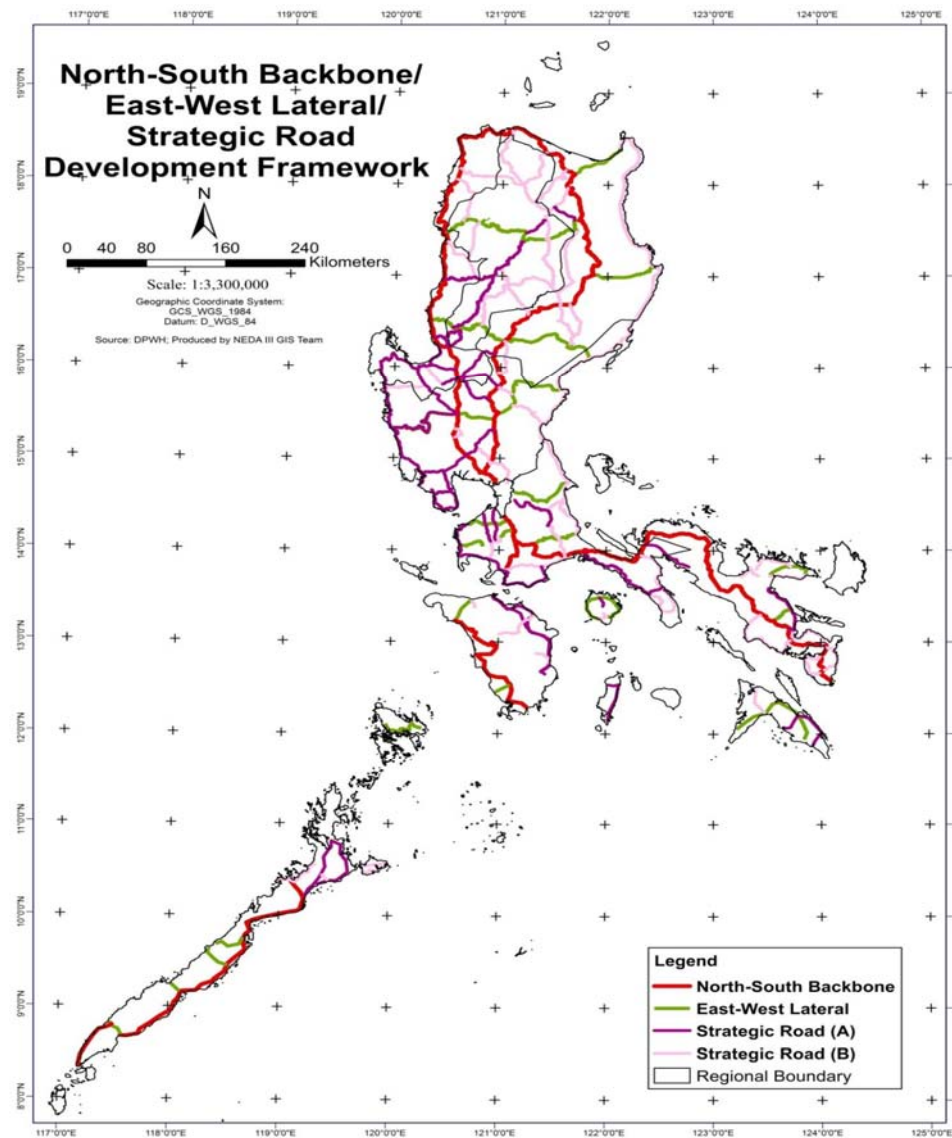
Source: Bicol RSDF

Figure 3.14 Air Transportation Route Map of the Bicol Region



Source: Bicol RSDF

Figure 3.15 North-South Backbone/East-West Lateral/Strategic Road Development Framework



Source: Luzon Spatial Development Framework

The following sub-strategies shall support the core strategy on connectivity:

- (a) improvement and/or widening of existing road links and bridges;
- (b) opening of new roads and bridges;
- (c) modernizing existing ports and facilities;
- (d) construction of new ports and

- facilities;
- (e) improvement of existing airports and facilities;
- (f) construction of new airports and facilities;
- (g) provision of stable and low cost power supply; and
- (h) provision of efficient communication system.

Vulnerability Reduction Strategy

Various literatures concluded that disaster occurs due to the interaction between the communities' exposure to hazard, and its existing vulnerabilities. The degree of disaster risks is further intensified by the changing climate. The Philippine Disaster Risk Reduction and Management Act of 2010 (RA 10121) and the Climate Change Act of 2009 (RA 9729) envision to achieve (a) safer, adaptive and disaster-resilient Filipino communities toward sustainable development, and (b) a climate-risk resilient Philippines with healthy, safe, prosperous and self-reliant communities, and thriving and productive ecosystem. The existence of various hazards and the region's vulnerabilities expose the Bicolanos to higher degree of disaster and climate risks, thus, the challenge to build resilient communities remains. Since hazard and vulnerabilities may exist in a specific spatial area, DRR-CCA is essential to be mainstreamed in the spatial framework.

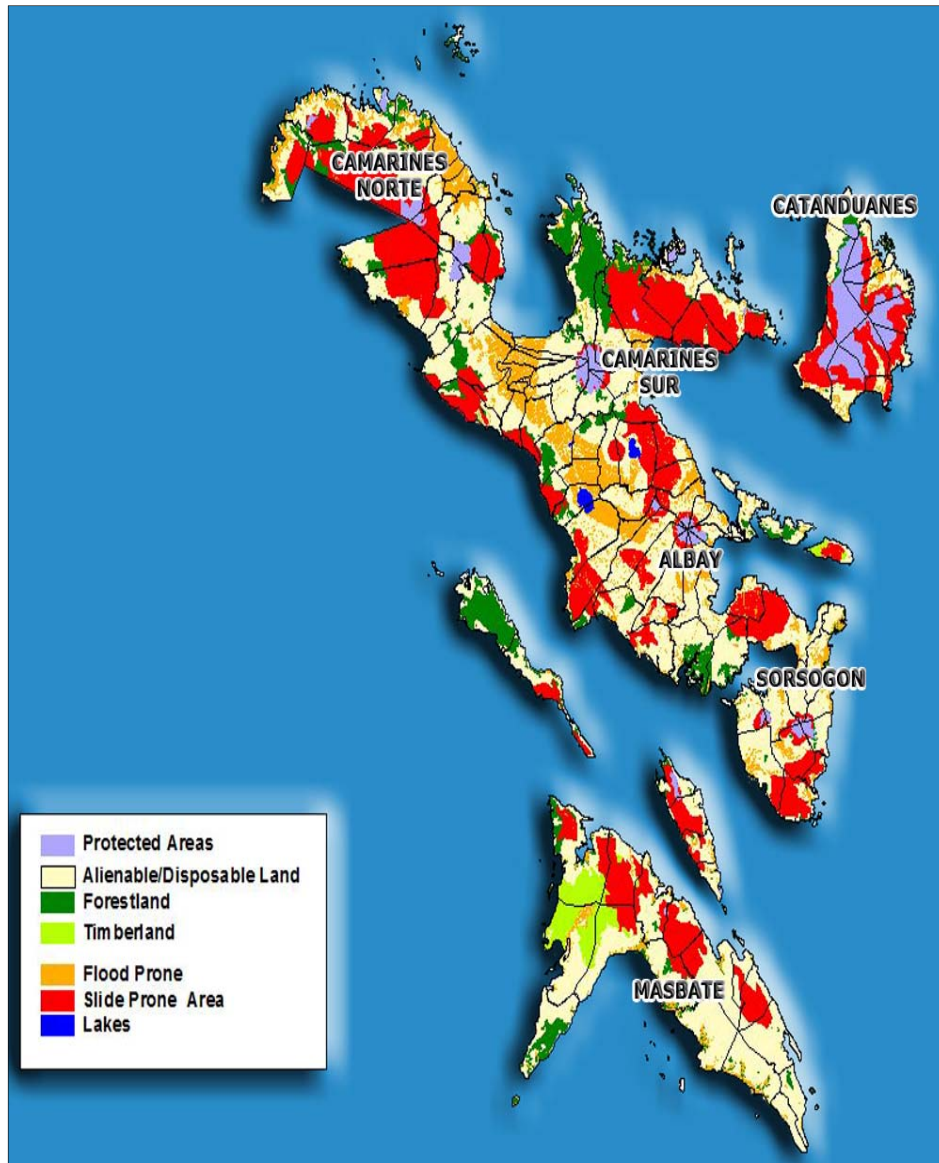
The Bicol RSDF shall adopt vulnerability reduction strategies in accordance with LSDF to address the above-mentioned concern. The vulnerability reduction strategy will be integrated both in the

concentration and connectivity strategies with the primary objective to separate or control the extent of interaction between the general population, and protected (e.g. NIPAS, SAFDZ, critical watershed) and hazard prone areas (e.g. fault lines and other areas prone to floods, landslides, and other hazards)⁴.

The delineation and identification of ECAs, hazard prone areas, and vulnerabilities of the elements at risk, as shown in Figure 3.16, is the primary concern of this strategy. The appropriate and specific vulnerability reduction measure for a particular spatial area can be determined by identifying and delineating the protection, conservation and hazard prone areas, as well as the vulnerabilities of the elements at risk including those of the population, agriculture and industries, and other infrastructure facilities. It is essential that an in-depth and detailed assessment of the prevalent risks (hazards and vulnerabilities) should be considered especially at the local level as basis for the identification of corresponding vulnerability reduction measure.

⁴ Arturo G. Corpuz. *National Spatial Strategy*. September 2012.

Figure 3.16. Map of Protected and High Risk Areas to Hazard, Bicol Region

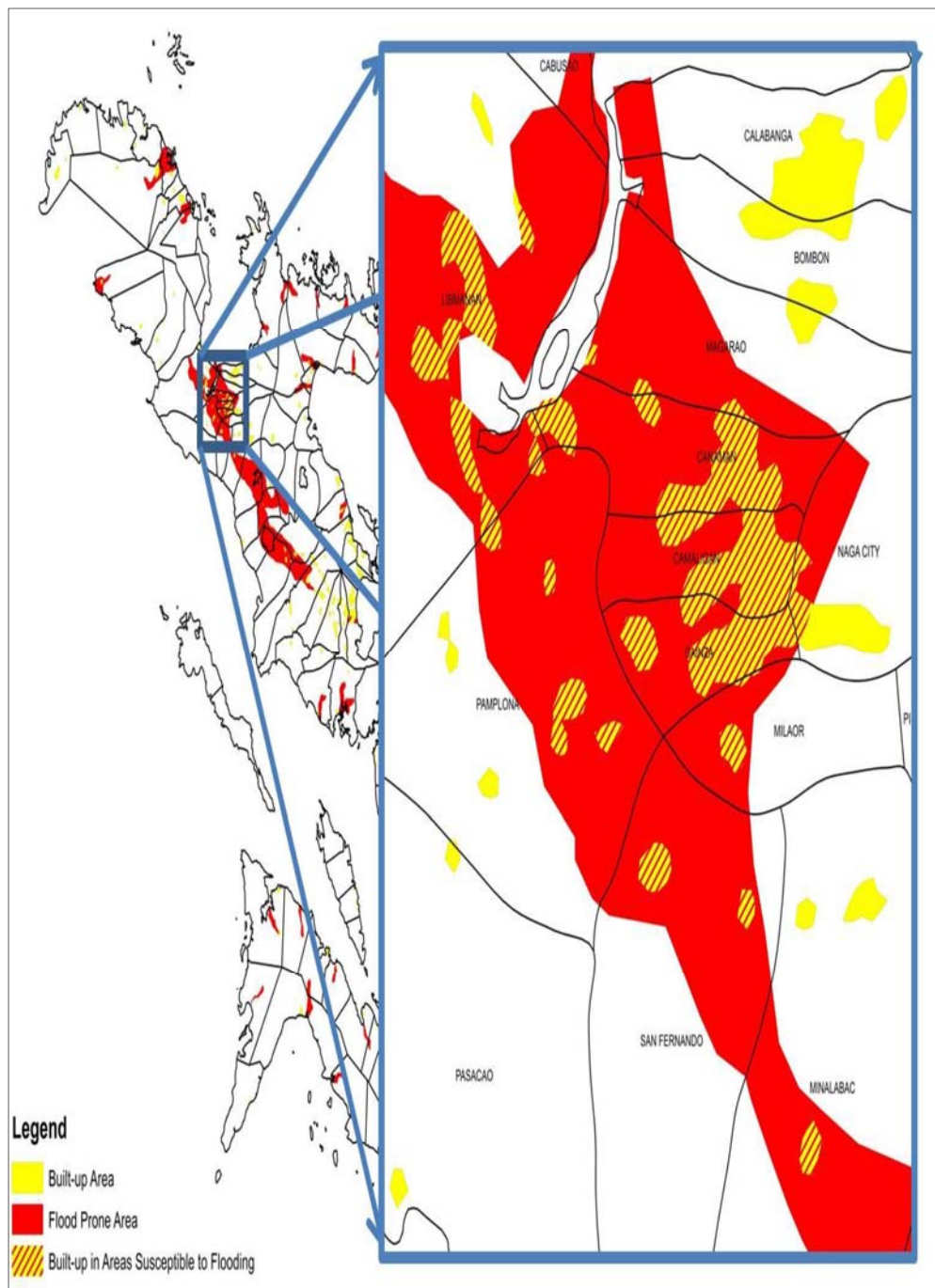


Source: Bicol RSDF

Figure 3.17 shows that there are settlements, particularly in the river basin areas, where flooding frequently occurs. Figure 3.18 presents the hazard-prone areas, and the built-up areas that are exposed to hazards like landslide, flood, storm surge, tsunami, and earthquake. These hazards pose risks to people's lives,

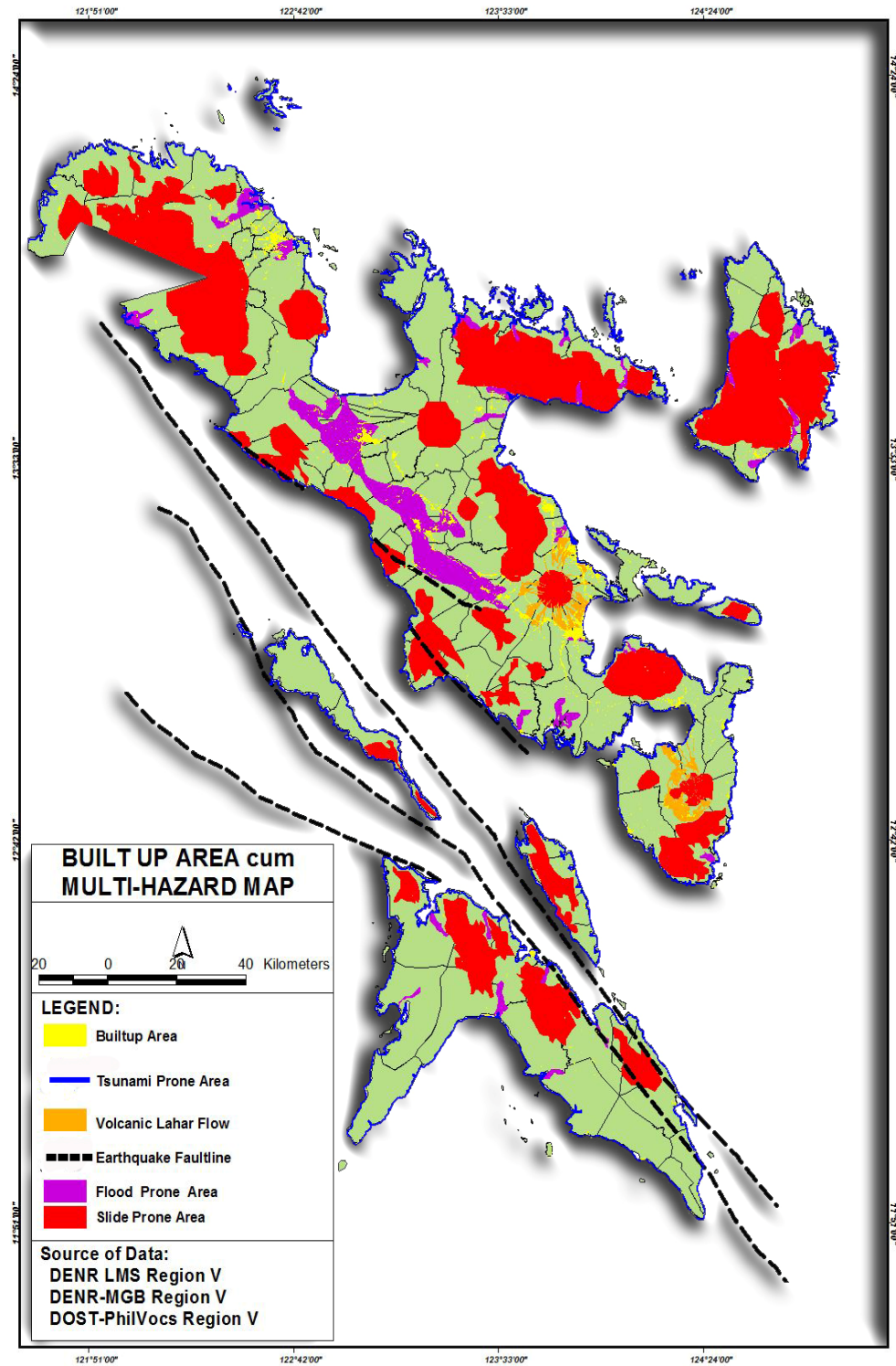
properties, and livelihood because of their physical exposure and proximity to these hazard-prone areas.

Figure 3.17 Map of Settlements in Safe and Flood-Prone Area, Bicol Region



Source: NAMRIA & DENR-MGB

Figure 3.18 Built-up cum Multi Hazard Map, Bicol Region



Source: NAMRIA & DENR-MGB

The following guiding principles will be adopted in relation to spatial context:

- Spatial areas with high exposure to hazards and ECAs shall be kept as no building zones. Further development such as building of permanent infrastructure can only be allowed with the necessary mitigating measures. Corresponding measures to minimize further encroachment in these areas must be implemented.
- Depending on the intensity and frequency of existing hazard as well as the degree of risk, differentiated decision on land use can be considered⁵. For example in moderately landslide prone areas, agricultural use could be allowed but residential use must be forbidden.
- Ecological integrity and stability must be protected and sustained. Further degradation of the environment must be strictly prohibited such as illegal logging activities. In the event that development cannot be avoided, the carrying capacity of the environment must be taken into account (e.g., policy that limits the number of visitors in a specific tourism site per day).
- Transportation routes, buildings and other infrastructure facilities related to connectivity must demonstrate resiliency. Access especially during disasters is vital. Alternative routes through an alignment that is not subject to the same threat should be built especially where infrastructure and transportation routes cannot avoid passing through a hazard prone area or protected area (Corpuz, 2012). To avoid isolation and ensure prompt response operation, ideally, all major regional and provincial routes are essential to have such redundancy⁶.
- The application of the building back better principle must be incorporated in the post-disaster efforts. For instance, a damage infrastructure facility which needs to be rehabilitated or reconstructed must further demonstrate resiliency and strength to resist hazard force.

⁵ Mark Fleischhauer. *Spatial Planning and Risk Governance: Potentials and Limitations of Spatial Planning in Multi-Risk Management of Urban Areas. Planning for Disaster Prone Areas: Approaches, Strategies and Experience from Haiti. Proactive Planning including Governance, Institutional Arrangements and Disaster Resistant Infrastructure*. 2011.

⁶ Arturo G. Corpuz. *National Spatial Strategy*. September 2012

As emphasized under the NSS, part of vulnerability reduction is the resolution of land use conflicts. To address these, the Bicol RSDF adopts the following principles as stipulated in the LSDF and NSS:

- Conflicts between urban expansion and key production areas shall be resolved in favor of the latter provided that provisions for expansion are recognized and are in place (as part of the resolution itself or as part of a separate local-regional plan). As mentioned earlier, the preferred way of accommodating future growth is through higher densities within the existing built up areas, but with appropriate support infrastructure and services. An alternative is to expand in areas that minimize conflict but remain accessible as far as employment and service delivery are concerned. Transportation routes and facilities need to be an integral part of protection plans in order to channel growth (and eliminate or reduce potential conflicts) into areas that can accommodate them. Plans should direct and not merely prevent. Expansion into rural land cannot be totally avoided, however, decisions have to be made where these can take place; otherwise, these are likely to take place indiscriminately (Corpuz, 2012).
- Eco-tourism, agri-forestry, and urban amenities can be part of the resolution involving conflicts between production and protection areas. Both should have market

values that reinforce their respective roles. These require, however, appropriate institutional capacity both within the public and private sectors to implement and manage the land (and water) using activities (Corpuz, 2012).

Although land use planning and zoning are two of the most common non-structural risk mitigation measures in the local level, other vulnerability reduction measures must also be taken into consideration to fully address vulnerability issues. The physical (infrastructure and non-infrastructure facilities including lifelines, etc.); social (knowledge and skills of the communities, institutional and organizational mechanism, policies, etc.); economic (labor, employment, and trade, etc.); and environmental (forest, water, land and mineral resources, etc.) elements at risk are essential to be provided with appropriate interventions to reduce vulnerabilities and increase the capacities. The four priority areas of concern under the national disaster risk reduction and management (DRRM) framework namely (a) disaster prevention and mitigation, (b) disaster preparedness, (c) disaster response, and (d) disaster rehabilitation and recovery should be taken into account.

To further support vulnerability reduction strategy, the following sub-strategies will be observed:

- Mainstreaming DRR-CCA to other development plans and policies

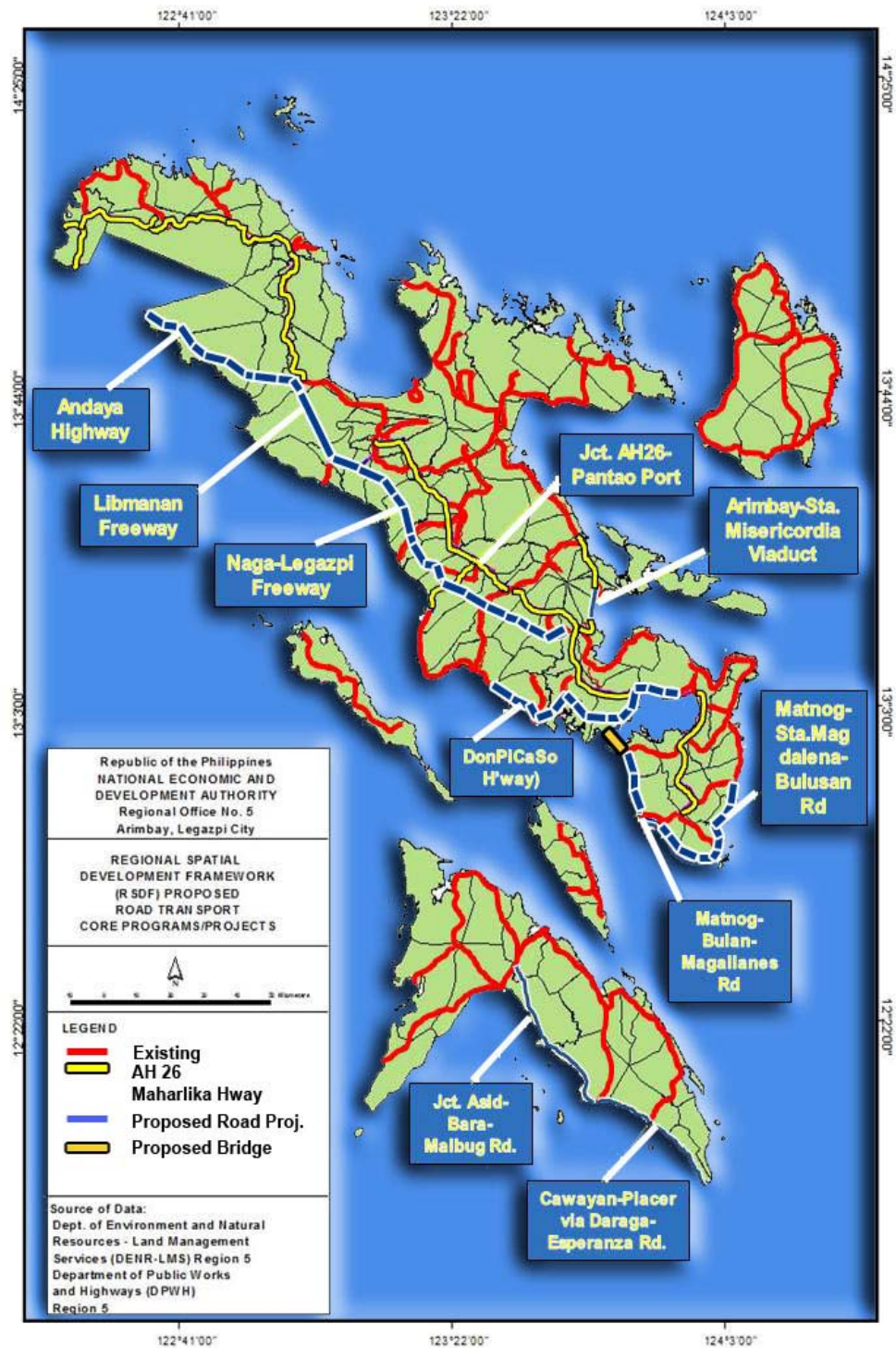
- Strengthening the institutional and coordination mechanism from the local level (barangay) up to the regional level
- Strengthening the information management and assessment process
- Strengthening the disaster response and recovery mechanism including efforts to build back better
- Further intensify the capacity of all sectors in the communities including the vulnerable ones (e.g., conduct of capacity building activities, information, education and communications campaign, etc.).

Investment Program

The RSDF contains 57 PAPs classified as core projects (39) and complementary projects (18), with a total investment requirement of PhP672.867 billion. Priority or core PAPs are those that directly address the RSDF strategies on connectivity, concentration, and vulnerability reduction. These projects may be implemented within 10 years under appropriate funding mix of the government, Official Development Assistance (ODA), and Public-Private Partnership (PPP). The required funding for the core projects is estimated at PhP398.415 billion which are all

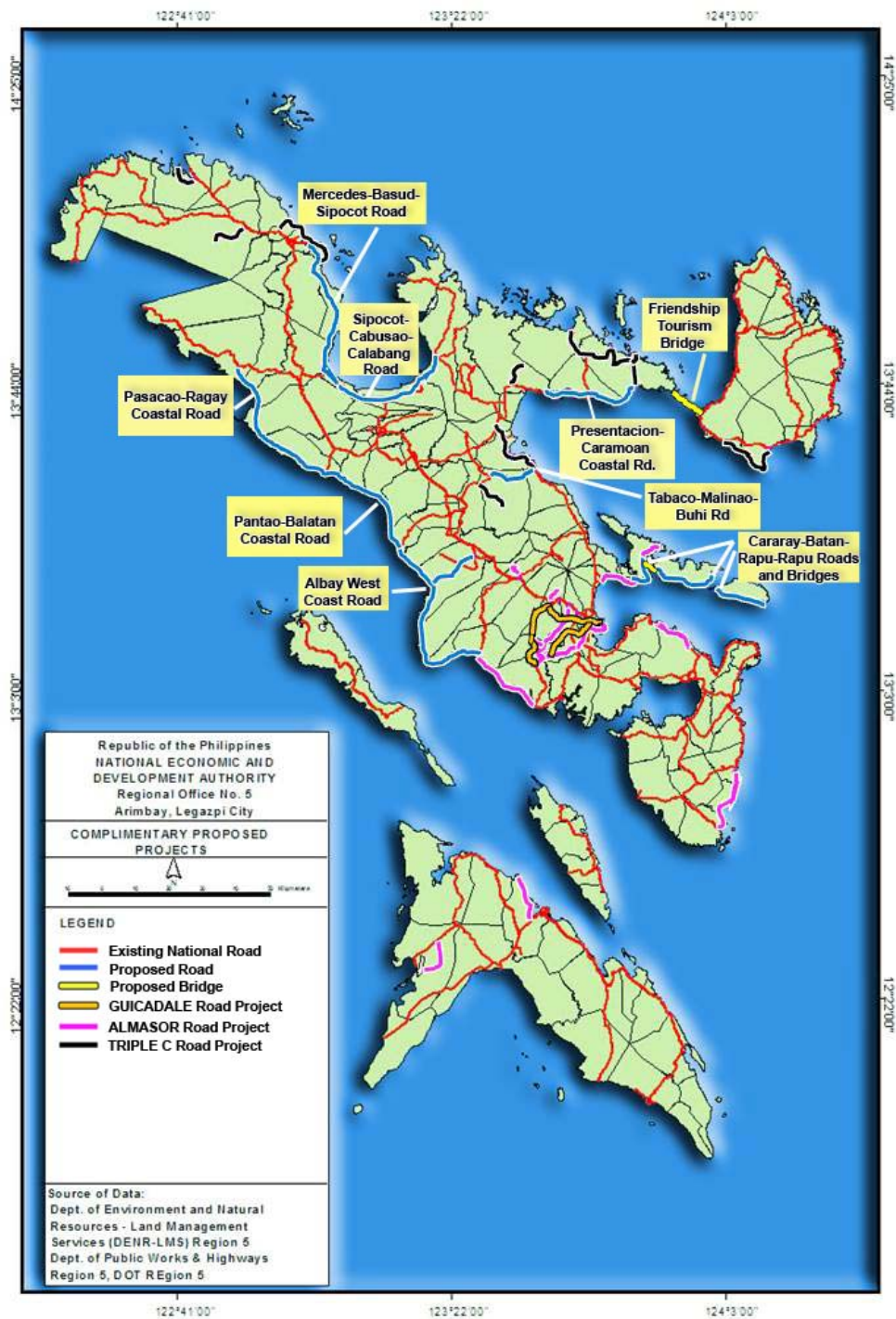
infrastructure in nature. The list of core PAPs is presented in Table 1 of Annex B and are shown in Figure 3.19. Projects that support the core PAPs are classified as complementary projects. These projects are presented in Table 2 of Annex B and are shown in Figure 3.20. The required funding for the complementary projects is approximately PhP274.452 billion. All the identified PAPs are under the transport subsector and majority of the complementary PAPs are supportive of the connectivity and vulnerability strategies.

Figure 3.19 Map of Bicol RSDF Core Projects



Source: Bicol RSDF

Figure 3.20 Map of Bicol RSDF Complimentary Projects



Source: Bicol RSDF

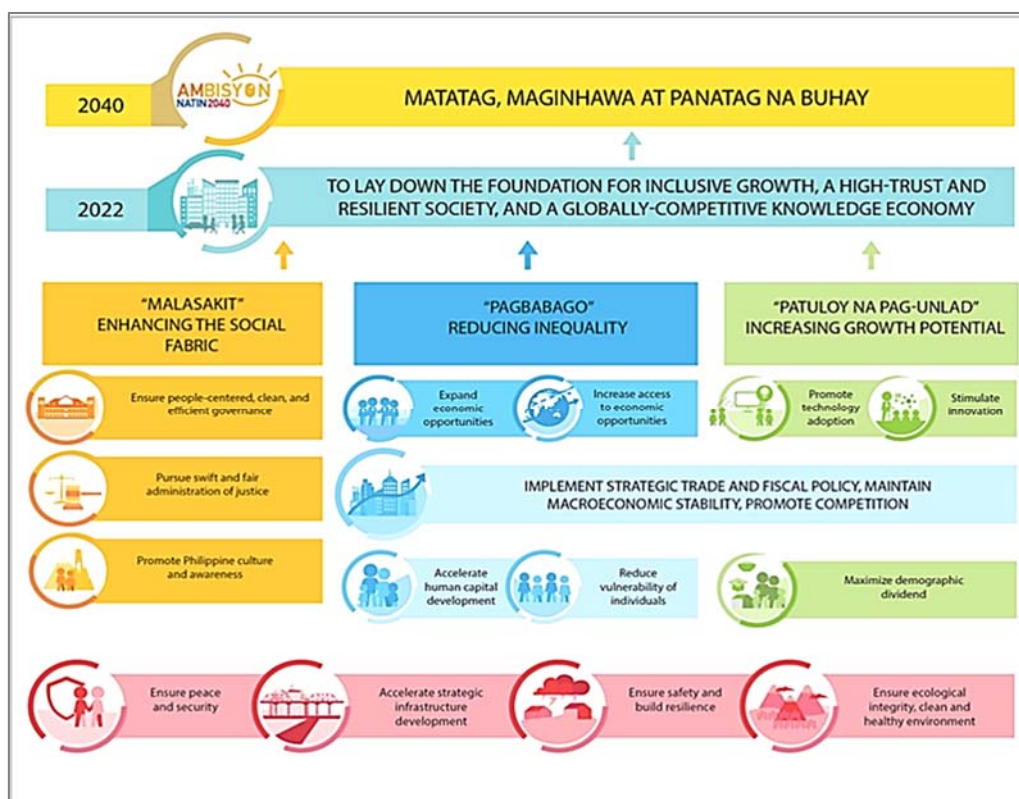
04

Bicol Regional
Development Plan
2017-2022
Overall Framework

Bicol Regional Development Plan 2017-2022 Overall Framework

The Bicol RDP adopts the overall strategic framework espoused in the PDP as presented in Figure 4.1.

Figure 4.1. Bicol RDP 2017-2022 Overall Framework



The Bicol RDP shall aspire to contribute to the attainment of a “*Matatag, Maginhawa, at Panatag na Buhay para sa Lahat*” by laying down a solid foundation for more inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. This will be done by focusing on three pillars

of: “*Malasakit*” (enhancing the social fabric), “*Pagbabago*” (reducing inequality), and “*Patuloy na Pag-unlad*” (increasing potential growth of the economy).

Enhancing the social fabric: The aim is to regain peoples' trust in public institutions and cultivate trust in fellow Filipinos through “Malasakit”. Public offices will be characterized as people-centered, efficient and clean (*Chapter 5*). Government offices shall be equipped with adequate facilities, personnel shall be trained, and systems shall be improved to ensure the prompt delivery of services. Citizens shall also be 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” shall be adopted. Processes – from lodging of complaints to investigations, prosecution, and conviction – shall be streamlined and harmonized across the different agencies in the executive and judiciary branches of government. Systems to exact accountability shall 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 shall be meticulously documented and archived in Knowledge Development Centers and Institutes of Living Traditions to be established across the country. Heritage conservation plans shall be formulated and implemented. Cultural education shall be mainstreamed in basic and higher education.

Values for the common good, to include “malasakit” values, shall be promoted using several media and integrated in school curricula. Personnel in government shall 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 and the Bicol RDP 2017-2022. This will include building awareness and appreciation for the arts, and promoting creative excellence.

Inequality-reducing transformation: Ordinary Filipinos will feel the “Pagbabago”. For each economic sector, there will be more opportunities for growth of outputs and income; and subsectors and economic groups that used to lag behind, like farmers and fisherfolks and Micro, Small and Medium Enterprises (MSMEs), will benefit from these opportunities (*Chapters 8 and 9*).

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

The governance framework for fisheries management shall 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, shall be encouraged to maximize the benefits of existing free trade agreements and other cooperative arrangements.

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

Inclusive business models and social enterprises shall be developed to better engage MSMEs. The MSMEs will enjoy easier access to finance. At the same time, financial literacy training shall be provided to MSMEs, cooperatives, and to Overseas Filipinos and their families.

Restrictions on foreign investments shall be eased and bureaucratic processes for both local and foreign investors shall be streamlined.

Individuals and people groups will have more options to develop their full potential (*Chapter 10*).

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

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

Policies and programs shall 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, differently-abled persons, and indigenous peoples (IPs). Policies and programs shall be put in place to ensure that their social, cultural and economic rights are protected and that they eventually empowered to participate in the development of the country. There shall 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 shall be in line with the new urban agenda of developing integrated neighborhoods and sustainable communities. Innovative solutions to housing construction shall be encouraged and alternative modes of financing shall be developed to improve the access of families to decent housing. Community relations shall be strengthened and community organization shall 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 shall be promoted and even accelerated. Policies and programs to facilitate knowledge flows and protect intellectual property rights shall be put in place or enhanced. A culture of creativity shall be created, beginning with the very young students in basic education and all through higher and technical education. Innovation hubs shall 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 shall be integrated in the school curriculum. Full information and orientation programs on responsible parenthood and reproductive health shall be made widely available. Access to services shall also be made easier in order to fully meet the need for modern family planning methods. This shall be complemented by measures to increase the labor market participation of women, to defer childbearing and attain wholesome birth spacing.

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, shall be made simpler, fairer, more equitable, and internationally competitive (*Chapter 15*).

Market competition will be enhanced (*Chapter 16*). There shall be broad-based communication and advocacy efforts to increase awareness about the benefits of market competition. Reporting and feedback mechanisms shall also be developed through which consumers can report on anti-competitive behavior and practices of firms. At the same time, government policies and regulations shall 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 five percent of Gross Domestic Product (GDP) from less than three percent previously. The program shall be rationalized based on strategic master plans effecting inter-regional connectivity and integrated province-level plans, some of which shall 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 (PPP).

Implementation of the infrastructure program shall be fast-tracked by adopting a 24/7 work schedule for major infrastructure projects. Other issues shall 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 (ROW), 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 conflicts shall be negotiated

and implemented. Communities in conflict-affected and conflict vulnerable areas shall be protected and developed. Government peace and development situations shall 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 shall strengthen bilateral relations, alliances and mutually-beneficial partnerships, ensure a strong presence in regional and multilateral fora, and develop new security and cooperation arrangements. The capability of military, including law enforcers in terms of facilities, equipment and skills shall 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 activities and illegal drugs. This will be done through a holistic program that involves not only combatting crimes but also the corruption that perpetuates such acts. The approach shall be comprehensive and shall include information, education and communication (IEC) 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 resource (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, ecotourism). 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 and the RDP 2017-2022 contain 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 shall 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 shall be put in place so that responsibilities for care and management of the ENR are identified.

Migration and development. The PDP and the Bicol RDP give deliberate attention to the special circumstances of OFs and their families. The goal is to protect their rights and improve their well-being, whether here or abroad, strengthen their engagement in governance and facilitate their integration in the country's development while working abroad, and eventually reintegration in their home country. The appropriate strategies are mainstreamed in the relevant chapters of the RDP.

PART II

ENHANCING THE SOCIAL FABRIC ("MALASAKIT")



05

Ensuring People-Centered, Clean, and Efficient Governance

Ensuring People-Centered, Clean, and Efficient Governance

The cornerstone of a high-trust society is the trust in government.⁷ Making the government worthy of people's trust means that citizens will be encouraged to participate in governance initiatives; the programs, activities, and projects, and policies of the government must be responsive to the needs of the people; and public goods and services must be delivered through an efficient and timely manner. This chapter discusses strategies to ensure a clean, efficient and people-centered governance in the region by engaging and empowering citizens, strengthening institutions, and providing an enabling environment to improve access to public goods and services.

Assessment and Challenges

The Bicol RDP 2011-2016 sector outcome of good governance and sustainable development practiced in the region was partially attained with the establishment in some government offices of systems to improve transparency, accountability, and productivity.

The previous plan target was to make all LGUs in the Bicol region, by the end of the plan period, compliant with the Full Disclosure Policy (FDP). The FDP is a transparency mechanism initiated by the Department of the Interior and Local Government (DILG) for public disclosure of financial documents, such as Annual Budget Report, Annual Procurement Plan, twenty percent component of Internal Revenue

Allotment (IRA) utilization, Abstract of Bid, Statement of Receipts and Expenditures, among others. The local officials of provinces, cities, and municipalities were required to comply with the provisions of the FDP by posting financial documents in the FDP portal and in three conspicuous places to inform the constituents on how the LGU budget was used, managed and disbursed. The number of LGUs fully compliant with the FDP decreased from 113 (94%) in 2011 to 100 (83%) in 2016, while 16 LGUs (13%) were partially compliant and four LGUs (3%) were non-compliant. Reasons for non-compliance can be attributed to lack of adequate manpower to prepare FDP reports and lack of budget for the maintenance of website domain.

⁷ *Philippine Development Plan 2017-2022*

Most LGUs sustained the practice of transparency and accountability. In 2011, there were 79 LGUs (66 percent) awarded with the Seal of Good Housekeeping (SGH) with their compliance to the FDP and support from the local chief executives (LCEs). In 2014, the DILG instituted policy reforms linked to recognition award and incentive program to pursue excellence in local governance and delivery of basic services. The SGH was scaled-up into Seal of Good Local Governance (SGLG) through DILG Memorandum Circular No. 2014-39. Under the SGLG, the performance of LGUs is assessed based on the three core areas plus one essential area. The core areas are: (a) good financial housekeeping (GFH) or formerly the SGH; (b) disaster preparedness; and (c) social protection. The essential areas are: business friendliness and competitiveness; peace and order; and environmental management. The GFH is very important to LGUs since it is part of the governance eligibility conditions to implement projects under the BuB Program as well as in availing loans. The SGLG pilot assessment for all LGUs nationwide was conducted in 2014 wherein 17 LGUs (15%) in Bicol region passed. These LGUs were awarded with the SGLG on September 10, 2015, in Legazpi City. The LGU awardees received the SGLG Marker, *alampay*, for the LCEs and Performance Challenge Fund check as an incentive amounting to PhP7 million for the province; PhP5 million for the city; and PhP3 million for municipality, to finance their local development projects. For 2015 SGLG assessment, only ten LGUs (8%) passed. Most LGUs failed to meet the DILG

enhanced SGLG criteria which already include the presence of updated Comprehensive Land Use Plan (CLUP), no Commission on Audit (COA) adverse findings, and the LGU updated remittances of Government Service Insurance System (GSIS) premiums and loan payments. The SGLG awarding was done on October 27, 2016 in Manila.

Compliance of agencies to the provisions of Anti-Red Tape Act (ARTA) of 2007 or Republic Act (RA) 9485 increased from 508 agencies in 2011 to 570 in 2012. The Civil Service Commission (CSC), as lead implementing agency of ARTA, monitored the performance of agencies related to frontline service delivery through the conduct of ARTA Watch and ARTA Report Card Survey (RCS). All agencies are required to set up their respective service standards or Citizen's Charter, establish Public Assistance and Complaints Desk (PACD), and observe the "No Noon Break" policy. From 2014 to 2015, a total of 124 agencies were subjected to ARTA Watch and ARTA RCS. Agencies that failed in the ARTA RCS were assisted through the Service Delivery Excellence Program. Frontline service delivery improved because the agencies set-up their PACD and complied with the "No Noon Break" policy. The agencies also formulated and displayed their citizen's charters in conspicuous places. In 2015, seven agencies were awarded with the Citizen's Satisfaction Center Seal of Excellence because they obtained excellent rating in the ARTA RCS and demonstrated exemplary frontline service delivery to their clients. However, some agencies are non-compliant to ARTA due to lack of

personnel to man the PACD, hectic work schedule of employees, and lack of office space.

On the part of LGUs, the provincial government of Camarines Sur received the first Citizen's Satisfaction Center Seal of Excellence in 2011. In 2012, there were 117 LGUs (97%) who had submitted findings and report card survey wherein 35 LGUs were rated excellent, 73 good, three acceptable, and six failed.

Government employees with outstanding contributions and achievements in the delivery of public services were recognized through the Honor Awards Program. In 2016, two awardees received the Presidential Lingkod Bayan Award, four received the Dangal ng Bayan Award, and eight received the CSC Pag-Asa Award.

From 2012 to 2015, a total of 134 agencies have approved Strategic Performance Management System (SPMS) but only 124 agencies had functional SPMS. The achievement was attributed to the technical assistance and orientations provided by the CSC in formulating the SPMS. However, the agencies encountered difficulties in formulating the success indicators. In July 2014, the CSC launched the Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM) to assess agency's HRM competencies, systems and standards, and practices toward human resource excellence. As of December 2015, all agencies were assessed by the CSC using PRIME-HRM indicators.

Budget delivery in the government agencies becomes transparent with agencies posting in their websites the Transparency Seal that contains information like annual reports, approved budget, procurement plans, status of implementation of programs and projects, among others. The e-Budget System for budget execution was continuously implemented by the Department of Budget and Management (DBM) to facilitate fund releases to agencies. The Government Manpower Information System was utilized for budget and personnel management purposes to monitor the itemized positions of clientele agencies.

Among LGUs, the community-based monitoring system (CBMS), computerization of supply and property management system, revenue management computerization program, and electronic new government accounting system were established which contributed in the productivity improvement.

All city and municipal governments were trained on business permit and licensing system (BPLS). Through the BPLS, reforms were institutionalized such as reduced processing time, standardized business permits and licenses, and improved customer relation. The establishment of Business One-Stop-Shop (BOSS) for business licensing improved the LGUs' productivity aside from raising more revenues. Among the LGUs who have implemented the system are the cities of Naga and Sorsogon.

Through the annual ranking of cities and municipalities in the entire country using the Cities and Municipalities Competitiveness Index (CMCI) survey, cities and municipalities were ranked on their competitiveness based on the overall competitiveness score on three main pillars: economic dynamism, government efficiency, and infrastructure. Naga City maintained its rank as the overall most competitive component city in the country for two consecutive years (2015 and 2016) from third place in 2014. Legazpi City ranked third most competitive component city in 2016 from the 23rd place in 2015. Included in the 2016 most competitive municipalities were Daet, Camarines Norte (17th) and Tigaon, Camarines Sur (11th). Manito, Albay ranked second in economic dynamism. Under the most competitive province category, Camarines Sur and Albay ranked 18th and 19th, respectively.

Overseas Filipinos (OFs) faced several issues and concerns that need to be addressed. Among the common issues are: (a) lack of accessibility on migration information and related government advisories and directives; (b) non-inclusion of some government migration-serving agencies in the Overseas Filipinos Information System; (c) high cost of migration such as high percentage of drop-outs among school aged children of OFs, teenage pregnancy, broken marriages; and absence of accredited medical facilities where overseas workers secure medical certification.

The following challenges need to be addressed during the plan period:

- **Improving the participation of the citizenry in regional development.** Public participation in the affairs of the government should be increased to promote a consultative process in policy and decision making. The public are not actively engaged although platforms for citizen's participation are available. These platforms should be reviewed and the public be properly informed for a more effective citizen engagement.
- **Adhering to the rule of law to improve government services.** The implementation of the ARTA provisions related to feedbacks on client satisfaction, such as RCS and ARTA Watch, should be supported. Existing feedback mechanisms, such as the Contact Center ng Bayan, suggestion box, and client feedback survey, should be maintained.
- **Promoting transparency, improve performance management and accountability measures in the government.** All government agencies and LGUs should establish their websites where government data such as annual reports, plans, budget, programs and projects, and other relevant documents including migration information and directives can be accessed by the public. Moreover, the data being shared should be scrutinized and updated. All LGUs should fully comply with the FDP and pursue excellence in all aspects of good governance while

providing basic services to the people. The implementation of public financial management (PFM) reforms remains a challenge. The PFM reforms include linking and harmonizing planning and budgeting, accounting and auditing in government. Public accountability in managing development programs, projects and activities including measures in budgeting, procurement and auditing also need to be improved.

- **Ensuring efficient and effective delivery of public services.** This should be done at all levels to improve government processes and transactions. Complex and

unnecessary regulations and processes should be eliminated by streamlining processes to facilitate government transactions, such as in business permits and applications for passports.

- **Strengthening the culture of performance and accountability among civil servants.** Civil servants should adhere to the principle of performance-based tenure and incentive system. Improvement in human resource management such as assessment of competencies, systems and practices of agencies is also needed.

Strategic Framework

Ensuring people-centered, clean, efficient and effective governance will contribute to enhancing the social fabric or “*Malasakit*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes

should have been achieved: (a) citizenry fully engaged and empowered; (b) administrative governance enhanced; (c) seamless service delivery achieved; and (d) civil service strengthened. Figure 5.1 presents the Strategic Framework to Ensure People-centered, Clean, Efficient, and Effective Governance.

Targets

The Bicol RDP 2017-2022 targets to increase the following: (a) percentage of provinces, cities and municipalities (PCMs) with the required NGO representation in the local development council; (b) number of cities and municipalities with Automated Business Permit and Licenses System (BPLS); (c) percentage of PCMs conferred

with the Seal of Good Local Governance (SGLG); (d) proportion of LGUs with PFM Improvement Plans; (e) proportion of agencies assessed that have passed the ARTA RCS survey ; and (f) proportion of agencies compliant with PRIME HRM levels.

Figure 5.1. Strategic Framework to Ensure People-Centered, Clean, Efficient, and Effective Governance, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Citizenry fully engaged and empowered

- **Promote participatory and inclusive governance.** The role of civil society organizations (CSOs) in regional development will be strengthened through issuances of related guidelines, circulars and joint memoranda. This strategy will enable the CSOs to participate in government activities, such as in the identification, implementation, and monitoring of government projects. One of the programs to be implemented under this strategy is the “*Mamamayang*

Ayaw sa Anomalya, Mamamayang Ayaw sa Illegal na Droga (MASA MASID)”. It was launched by the DILG to combat corruption, criminality, and the spread of illegal drugs. The local stakeholders, private sector organizations, civic organizations, and volunteers will be involved in the IEC campaigns, reporting mechanisms, and community-based rehabilitation programs. Another is the ADM, a pro-poor and pro-people program which will assist the LGUs in strengthening their ability to deliver basic services. It is recommended to revisit RA 7160 on Civil Society Organization (CSO) participation and on local service delivery.

The OFs shall be encouraged to participate in development planning. This involves creation of local migration and development councils, regional committees, OFW desks, and strengthening of migrant resource centers. During national elections and plebiscites, more advanced technology will be used to increase OF voters' turnout.

The citizenry shall be encouraged to practice volunteerism to strengthen democratic institutions for nation building. Platforms for inclusive volunteering will be opened by the national and local governments to enable ordinary citizens to take active role in information sharing, conflict resolution, public resource management, and other related processes.

- **Institutionalize feedback, complaints and response mechanisms at all levels.** Through feedback mechanisms, the citizens will feel empowered to provide ideas for the improvement of services and also a way for service providers to know whether policies are properly implemented or working. Responsive governance shall be promoted by ensuring that the citizen's feedbacks are acted upon and the results are reported back to the citizen. Existing mechanisms on soliciting feedback from the citizens, such as the Contact Center ng Bayan (1-6565) or the President's hotline 8888 shall be strengthened. Compliance of agencies and LGUs with the provisions of RA 9495 or the ARTA shall be ensured. The CSC shall

subject all agencies and LGUs to ARTA Watch and RCS to determine their full compliance to the Act. The ARTA Watch and RCS are tools used in measuring client satisfaction of government's frontline services.

- **Ensure public access to information.** The strategy includes sustaining the existing transparency initiatives such as the Transparency Seal and Citizen's Charter. All agencies and LGUs shall be encouraged to develop their websites so that data and information about government processes and transactions will be accessible to the public. Provinces, cities, municipalities, and barangays shall be required to fully comply with the FDP. The monitoring system of the FDP will be strengthened and a mechanism will be devised to assist those non-complying LGUs and agencies. Provision of Information and Communication Technology (ICT) infrastructure for internet accessibility and free wifi access to all public places shall also be pursued.

Subsector Outcome 2: Administrative governance enhanced

- **Strengthen public financial management (PFM) reforms.** This will ensure the integration of the planning, budgeting, cash management, accounting and auditing processes. Sound PFM is critical to the achievement of building public trust, in ensuring efficient and effective use of public

funds, and in operational decision-making. The following are the components of an effective PFM: (a) Aggregate Financial Management – pertains to financial sustainability, resource mobilization and allocation; (b) Operational Management – pertains to performance, value for money, strategic financial planning and management, governance, transparency and accountability; and (c) Fiduciary Risk Management – pertains to controls, compliance and oversight function. Tracking of the progress of implementation of the PFM improvement plans of the LGUs shall be continued.

- **Strengthen results-based performance management.** This will be undertaken by refining the performance measurements and strengthening the monitoring and evaluation systems of performance targets to intensify the results-based performance management. The SPMS shall be continued to strengthen the culture of performance and accountability among civil servants and at the same time achieve a high performing and learning civil service organization.
- **Promote best practices on good governance.** The LGUs shall be encouraged to adopt, sustain, and promote best practices on good governance. The DILG criteria for the SGLG will be used in measuring the performance of LGUs in all aspects of governance.

- **Strengthen linkages between and among agencies.** The strategy involves strengthening the horizontal and vertical linkages between and among agencies at the national and sub-national levels in all aspects of the development process from planning, investment programming, and monitoring and evaluation.

Subsector Outcome 3: Seamless service delivery achieved

- **Improve and simplify government processes and transactions using information technology.** This involves streamlining the business process by establishing the BPLS in all city and municipal LGUs. Through the BPLS, the processing time, steps, documentary requirements and signatories in applying for business permits shall be reduced, thus, it will make transactions easier and less costly. Online reporting system for the submission of agency budget execution plans and targets shall also be continued.
- **Improve productivity of the public sector.** The efficiency and effectiveness in providing timely and responsive government services shall be enhanced to increase the citizen's trust in government. The strategy includes improving the capacities of government agencies and LGUs on DRR-CCA to minimize disruption in services when disasters occur. The government quality management

systems shall be upgraded to enhance the delivery of services to make it more client and citizen-oriented. Likewise, the implementation of existing productivity improvement systems shall be sustained, such as the E-Budget System, Government Manpower Information System, and the Electronic New Government Accounting System. Office automation for the public sector shall be pursued. The LGUs shall be capacitated to enhance revenue collection to augment their funds for the salaries of job order and contractual employees. To better maximize the utilization of resources, the following guidelines on the use of IRA shall be reviewed to include non-infrastructure projects: (a) DILG-DBM Joint Memorandum Circular No. 1 dated September 20, 2005, entitled "Guidelines on the Appropriation and Utilization of the 20 Percent of the Annual Internal Revenues Allotment for Development Projects"; and (b) DILG Memorandum Circular No. 2010-138 dated December 2, 2010, entitled "Use of the 20 Percent Component of the Annual Internal Revenue Allotment Shares."

- **Be a “one connected government”.** This involves adoption of a public delivery model that will make easier for the citizens to locate and access government services. One-stop shops for OFs shall be established in the cities of Naga and Legazpi for a more accessible and relatively faster service in securing documents from

at least eighteen government agencies that process OFs requirements.

- **Strengthen coordination and linkages of agencies.** Some administrative arrangements in government require horizontal and vertical linkages of different agencies and offices. These linkages shall be rationalized to improve decision-making, maximize complementation of resources, and avoid duplication of initiatives. The establishment of provincial offices of national government agencies, such as DOT and DBM warehouses will improve the provision and access of services by its clients.
- **Strengthen LGU capacities.** Capability of LGU personnel shall be strengthened particularly on the areas of integrated planning, investment programming, budgeting, project development, implementation, and monitoring and evaluation.

Subsector Outcome 4: Civil service strengthened

- **Improve the HRM systems and processes.** The implementation of the PRIME-HRM, a government-wide initiative to improve HRM systems and processes, shall be continued. Through PRIME-HRM, the HR practitioners will be capacitated on how to improve the level of maturity of the agency’s HR competencies, systems and practices particularly in recruitment, selection and placement, performance management, rewards and recognition.

- **Develop and invest in human resource.** This involves the conduct of capability and capacity building interventions for first and second level civil servants to hone competencies, to be able to innovate, and be flexible. Government civil servants shall be provided with continuous capability advancement and trainings, such as the learning and development programs, Career Executive Service Development Program, and Public Management Development Program to improve public service competency.
- **Promote shared public service values.** This means that all civil servants shall adhere to the values of professionalism, excellence, integrity, and non-discrimination in public service. Strict implementation of anti-corruption laws provided under the ARTA, raising awareness on civil service values and norms among all government employees shall be pursued.

06 Pursuing Swift and Fair Administration of Justice

Pursuing Swift and Fair Administration of Justice

The Filipinos want a stable, secure and comfortable life as espoused in the *AmBisyon Natin 2040*. For 2017-2022, the Bicol RDP focuses on the provision of a swift and fair administration of justice to Bicolanos as a way of achieving the vision. This chapter provides strategies and programs, activities, and projects that will improve the implementation of the justice system in the region. Justice must not only be swift and timely but also fair and equal. It must not be discriminatory and must be accessible to everyone.

Assessment and Challenges

Backlogs in resolving cases and delays in case development procedures. The National Prosecution Service (NPS) Region 5 is mandated to assist the Secretary of Justice in the performance of powers and functions of the Department relative to its role as the prosecution arm of the government, particularly the investigation and prosecution of criminal offenses in the region. It has six provincial prosecution offices, seven city prosecution offices, and nine sub-offices. It is manned by 172 prosecution officers (prosecutors and prosecution attorneys) and 143 administrative support staff. The NPS is currently undermanned particularly in the city prosecution offices of Ligao, Masbate, Tabaco, and Sorsogon. The lack of manpower caused backlogs in resolving cases and delays in case procedures. As of December 2016, the vacancy rates for the prosecution officer position and support staff were placed at 18 percent and three percent, respectively. It handled 15,174

(PI) and resolved 14,340 cases, accounting for an annual disposition rate of 95 percent in 2016, an improvement from 89 percent disposition rate in 2015. On the average, one prosecutor handled 88 and resolved 83 PI cases in 2016. This prosecutor caseload does not include cases pending in court, such as criminal cases, special proceeding cases, ombudsman referred cases, and reopened and/or reinvestigated cases through motions, petitions and court orders, among others.

The NPS Region 5, however, continued to address its deficiency in manpower since 2011 which resulted to a decline in backlogs on complaints pending beyond 120 day-maximum reglementary period as prescribed in the 2008 Revised Prosecutor's Manual. Prosecution success rate progressively increased from 75 percent in 2011 to 86 percent by the end of 2016. Prosecution success rate is the proportion of the number of convictions to the total convictions and acquittals.

Dismissals and archival were not considered since their causes are beyond the control of prosecutors (e.g., non-appearance of complainants/witnesses/accused, successful court mediation, desistance of complainants).

The performance of the NPS, particularly on investigation and prosecution, was constrained by various organizational challenges, namely: (a) inadequate support staff in many prosecution offices in the region; (b) lack of funding for infrastructure and office equipment and amenities resulting to continued dependence on local government provision; and (c) internal management weaknesses (e.g., case load management, resource management, and personnel development).

Congestion of jail facilities. The Bureau of Jail Management and Penology (BJMP) Region 5 registered an average congestion rate of 396 percent in the region. Tabaco City District Jail has the highest rate with 800 percent followed by Sorsogon City with 764 percent, and Daet District Jail with 717 percent. Majority of the jails in the region have congestion rates higher than 100 percent. As of October 2016, only six jails (one in Sorsogon and five in Masbate) out of 35, were not congested. Aroroy District Jail in Masbate is the only jail in the region that has a jail congestion rate less than 100 percent. A jail cell can be considered congested when the number of inmates

occupying such cell exceeds the standard occupant capacity of 4.7 sq m per inmate.

Due to overcrowding in jails, detainees take shifts in their sleeping routines not only because of the lack of beddings but also because of lack of space. They were considered lucky enough if they could sleep on the floor even without a mat, pillow or blanket. With the jammed jail cells, diseases, particularly skin infections are widespread⁸.

Independence of the five pillars of the justice system. These five pillars have been working independently from each other focusing on their respective roles and mandate with less coordination and complementation of activities. As such, judicial remedies fail to provide immediate and adequate redress. Even with the improved manpower in the NPS, there are still delays in court disposition, thus, worsening the jail situation in the region.

Limited resources of the justice department. The inadequate infrastructure facilities such as buildings and office spaces provided to key players in the justice system, especially those in far flung areas, further delay the delivery of justice to the people. The Department of Justice (DOJ), Philippine National Police (PNP) and BJMP are dependent on the LGUs for the needed facilities and equipment.

⁸ *Catanduanes Tribune*

Strategic Framework

Pursuing swift and fair administration of justice will contribute to enhancing the social fabric or “*Malasakit*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been

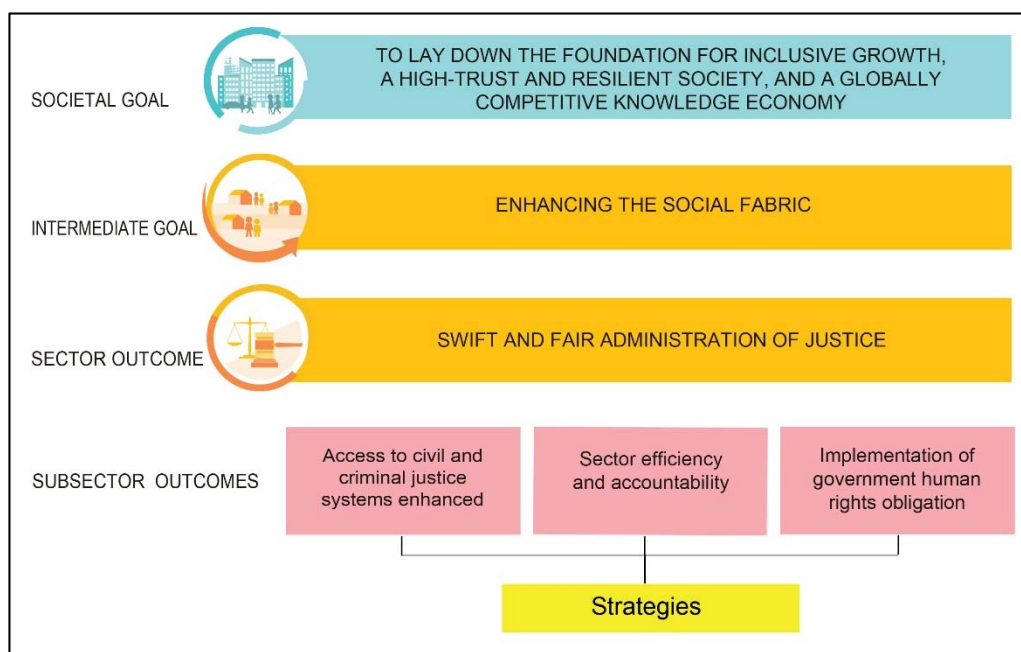
achieved: (a) access to civil and criminal justice enhanced; (b) sector efficiency and accountability improved; and (c) implementation of government human rights obligation enhanced. Figure 6.1 presents the Strategic Framework to Pursue Swift and Fair Administration of Justice.

Targets

The Bicol RDP 2017-2022 targets to increase the: (a) percentage of cases resolved over the total number of cases filed; (b) percentage of cases disposed over the total inventory of cases/total cases received; (c) rate of reduction in the aging of court cases from filing to

disposition; and (d) percentage of requests for free legal assistance acted upon within three working days from date of request. During the plan period, the number of unsentenced detainees as a proportion of overall prison population is targeted to be reduced.

Figure 6.1 Strategic Framework to Pursue Swift and Fair Administration of Justice, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Access to civil and criminal justice systems enhanced

- **Institutionalize a regional sector coordinating council (RSCC).** The creation of RSCC will provide a venue for the coordination and cooperation of the different agencies involved in the justice sector. This will ensure that issues and concerns faced by the judicial sector will be efficiently addressed. The RSCC will be composed of the Judiciary, the DOJ, DILG and its attached agencies.
- **Deliver justice real time.** This involves the (a) strict observance of rules of court for the speedy disposition of cases; (b) filling of positions for judges and prosecutors; (c) creation of an arbitration unit in the prosecutor's level covering criminal cases involving reckless imprudence, *Batas Pambansa 22* (bouncing check), and other criminal cases involving damages; (d) intensification of paralegal services; (e) effective implementation of the Judicial Affidavit Rule; (f) expansion of coverage of the Small Claims Rules; and (g) expansion of the coverage of the *Katarungang Pambarangay*.

In order to facilitate the filing and litigation processes, the implementation

and acceptance of paperless motions, pleadings and other court processes shall be pursued. Parole and mediation cases especially those involving senior citizens shall be regularly monitored and provided legal assistance. Non-government organizations (NGOs) and other legal private groups, including law students undergoing internship program, shall be tapped to provide assistance to inmates with no legal counsels. This is to facilitate the resolution of their cases and help in the decongestion of jails. Court hearings and proceedings shall be brought to remote areas through the implementation of "justice on wheels". The filling up of vacant positions for judges and prosecutors shall also be given priority to ease the workload and fast track resolution of cases.

The implementation Alternative Dispute Resolution (ADR) shall be strengthened and pursued to speed up the resolution of cases. This includes ADR at the barangay level, law enforcers, prosecutors, public attorneys, and administrative and regulatory agencies. Community-based dispute resolution especially in indigenous communities and remote areas shall also be further studied.

Subsector Outcome 2: Sector efficiency and accountability improved

- **Accountability through an engaged citizenry.** This can be done through the conduct of advocacy and

information campaign to the community (particularly at the barangay level) on the mandates and policies relative to justice system and inclusion of topics on the justice system in school curricula, and strengthen the crime prevention and intervention unit of the LGUs.

- **Deliver fair and equal justice.** This will entail the empowerment of women, IPs, differently-abled persons, children, and other marginalized group through their participation in community based program. Access to agency programs such as Children in Conflict with Law (CICL), Department of Justice Action Center (DOJAC), Board of Claims (BOC), Witness Protection Program (WPP), Inter Agency Council Against Trafficking (IACAT) and other inter-agency committees shall be strengthened. The participation of men in the campaign for violence against women and children shall be sought through the organization of Men Opposed to Violence Everywhere (MOVE) in schools, barangays, and offices.
- **Enhance sector efficiency.** This includes the institutionalization of the PNP performance governance system, full implementation of the

unified justice information system, and conduct of capability building program for all stakeholders.

Subsector outcome 3: Implementation of government on human rights obligations enhanced

- **Effectively advocate human rights concepts, policies and issues to the public and vulnerable sectors.** The Commission on Human Rights (CHR) shall provide documentation and management of complaints of human rights violations, and monitor human rights condition in detention facilities and penal rehabilitation centers. It will also assist victims of human rights violations in providing independent forensic services and medico legal services in aid of investigation.
- **Advocate Human Rights Based Approach in Development Planning.** This approach shall be adopted in the national and local development planning and governance. It is encouraged that the preparation of development policies, plans and programs as well as the monitoring and evaluation of the plans shall incorporate the principles of the human rights based approach in all levels.

07 Promoting Philippine Culture and Values

Promoting Philippine Culture and Values

Culture characterizes a people's way of life and includes the knowledge, belief, art, law, morals, customs, values, ideas, sentiments, and other capabilities acquired by a person as a member of society. It is the thread that binds together the social fabric of our society and, if harnessed for the common good, can be a crucial factor for rebuilding and transforming our communities.

Enhancing the social fabric provides the foundation for a high trust society. Building such foundation will encourage people to get involved and be more willing to help one another to make the community a pleasant place to live in. These conditions will build peoples' trust in the leadership, governance, and each other, thus paving the way to a more inclusive and people-centered development.

For the period 2017-2022, the Bicol RDP will prioritize the following: (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. This, however, is not adequately documented and existing documentation is not easily accessible. Across the country, there are 130 languages⁹ spoken by 110 ethnolinguistic groups¹⁰. Culture also varies according to age group, gender, spirituality, and socioeconomic class – even differently-abled persons have their own culture. However, a complete assessment of the country's diverse cultures, covering both 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 gather data in a culture-sensitive and ethical manner, and by lack of funding to sustain these activities.

Filipino identity has been undermined.

While this is so, there are inherent Filipino values that can be nurtured towards promoting the common good. Our colonial experience gave rise to feelings of inferiority and undermined what it means to be Filipino. This gave

⁹Based on the 2013-2015 Linguistic Mapping conducted by the Komisyon sa Wikang Filipino

¹⁰Based on data from the National Commission on Indigenous Peoples.

way for regional identities (e.g., *Bicolano*, *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* and *bayanihan* 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. Thus, learning is not rooted on positive local cultural values and practices, and devoid of important historical processes or information necessary for unity and social cohesion. Mainstream media, including popular shows or movies, failed to promote positive values in its pursuit of profit for the market-driven entertainment industry. As a result, the level of consciousness among Filipinos about their own culture and values remains low.

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

Climate change and natural hazards pose a threat to tangible heritage sites.

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 national history in a way that written text cannot provide. Structures, monuments, and sites that people can see, feel, taste, smell or hear promote better appreciation of culture and history. The conservation and promotion of cultural and heritage sites, whether natural or built, has not been given serious attention. Development and modernity are often the priority over the conservation of important cultural assets of the country.

The current governance framework for cultural development is inadequate.

There is no government agency at the regional level that has the mandate to undertake a complete assessment and inventory of the region's tangible and intangible cultural assets, promote cultural development, and address concerns at the sub-national level. There is no professional school for the arts in the region and only few tertiary education courses focus on the development of local arts and cultural heritage.

Since cultures differ according to age group, gender, spirituality, and socioeconomic class including differently-abled persons, there is an increasing clamor for IPs, differently-abled persons, and other vulnerable groups to be represented in policy making bodies at all levels. At the regional level, a member of the National Anti-Poverty Commission Indigenous

Peoples Council has been a special non-voting member of the Bicol RDC since June 2014. A representative each from the differently-abled persons and the women sectors are regular RDC members for the term 2016 to 2019. The LGUs, as frontliners in the development process, need to take a more culture-sensitive perspective in addressing development issues.

Legislations related to culture include RA 7356 creating the National Commission

for Culture and the Arts (NCCA), RA 10086 creating the National Historical Commission of the Philippines (NHCP), RA 8371 or the Indigenous Peoples' Rights Act, RA 8492 or the National Museum Act, and RA 10066 or the Cultural Heritage Law, among others. However, the implementation of said laws is weak and provisions to address violations are wanting.

Strategic Framework

Promoting Philippine culture and values will contribute to enhancing the social fabric or “Malasakit” towards laying down the foundation for inclusive growth, a high-trust and resilient society and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been achieved: (a) values for the common good inculcated; (b) our diverse cultures valued; (c) culture-sensitive governance and development strengthened; and (d)

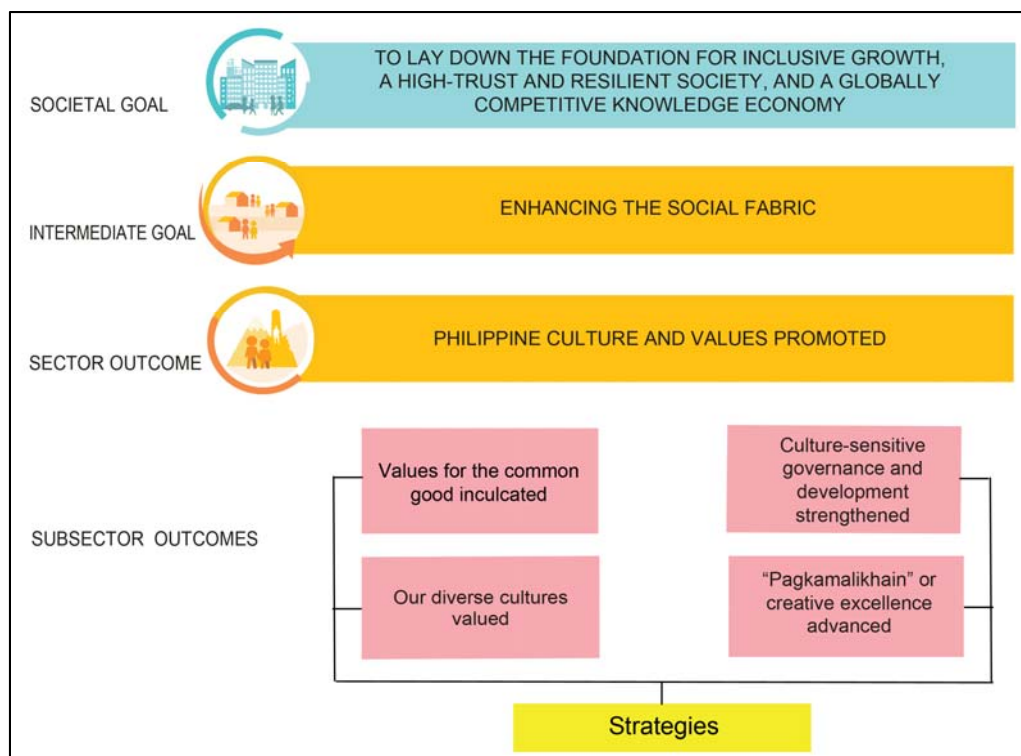
“*pagkamalikhain*” value of creative excellence advanced. The culture agenda shall be promoted in all levels of government with increased engagement of various stakeholders from the academe, private and non-government sector, and international volunteer organizations by encouraging the culture of volunteerism. Figure 7.1 presents the Strategic Framework to Promote the Philippine Culture and Values.

Targets

The Bicol RDP 2017-2022 targets to increase the number of local and sectoral

development plans that incorporate cultural components and initiatives.

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



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: 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. To achieve this, the following strategies shall be implemented:

- **Use various channels of values inculcation to reach all community members.** At the national level, a set of core values that foster the common good shall be determined. Among them are discipline, persistence, grit, positive disposition, “*pagkamalikhain*” (creativity), “*malasakit*” (empathy), “*bayanihan*” and volunteerism. Once these values are determined, they shall be promoted at the regional level so that institutions in both government and private sectors, including the basic institution which is the family, are able to incorporate them in their operations and work ethics. Families,

local communities, CSOs, workplaces, formal and informal educational systems, and media platforms shall be tapped to collaborate in helping inculcate the values in the general population.

- **Increase government efforts for promoting values that foster the common good.** The production of information materials on the identified set of core values shall be intensified. Programs, activities, and projects that promote these Filipino values shall also be created, implemented, integrated, and reviewed across all levels and sectors of government.
- **Mainstream cultural and values education in the basic, technical, vocational, and higher education systems.** Promotion of these values shall take advantage of the reform in the basic education curriculum, particularly with regard to the development of 21st century skills (critical thinking, communication, collaboration, and creation or innovation). The desired outcome of the reform is to ensure that students, as future leaders and workers, are equipped with not only functional literacy and skills, but also with the values necessary to become productive and ethical members of society. In addition, other means and channels for values formation shall be utilized through the collaboration of several agencies in order to cover all stages of human development.

Subsector Outcome 2: Our diverse cultures valued

Valuing cultural diversity requires its recognition, protection, safeguarding, and promotion, as well as mechanisms for preservation. To achieve this, the following strategies shall be implemented:

- **Develop, produce, and disseminate information on Filipino culture.** At the national level, learning materials shall be developed to raise awareness about the country's cultural diversity. At the regional level, higher education institutions (HEIs) shall be encouraged to undertake research on culture by tapping research grants. Various agencies shall collaborate to disseminate these information materials to their respective stakeholders, including OFs who may be reached through the Philippine embassies abroad.
- **Institutionalize and intensify heritage conservation plans and programs.** The LGUs, in cooperation with national government agencies and private stakeholders, shall develop and conserve tangible cultural and heritage sites in their respective areas and make them disaster and climate change resilient.
- **Expand inclusive cultural structures as civic spaces for dialogue and cultural exchange.** Cultural infrastructure and facilities shall be used as venues for fostering social cohesion and valuing cultural diversity. These include museums,

cultural centers, archives, libraries, art galleries, and other cultural facilities. The use of embassies for the regular engagement of Filipinos abroad in cultural initiatives shall be institutionalized.

Subsector Outcome 3: "Pagkamalikhain" or creative excellence advanced

A culture of creative excellence needs to be instilled in the consciousness of the people as the foundation for a globally competitive knowledge economy. To achieve this, the following strategies shall be implemented:

- **Enhance the development of Filipino creativity as a tool for social 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 imperative to foster a culture that values arts, science, technology, and innovation as discussed in 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.

- **Build appreciation of Filipino creativity.** To harness the potentials of creative excellence, agents of creativity shall be empowered and supported by an institution that will encourage the production of creative works, invest in human capital development of its stakeholders, support their products, and develop the industry. (Refer to Chapter 9)

Subsector Outcome 4: Culture- sensitive governance and development strengthened

- **Pursue institutional reforms for cultural development.** In the absence of regional offices of NCCA and the NHCP, the creation of a coordinating body for culture and arts at the regional level shall be explored. The establishment of local culture and arts councils and allocation of funds similar to the gender and development fund shall be supported. The LGUs shall be encouraged to take the lead in developing and implementing cultural and heritage programs and activities in their respective areas. Related to this, a review of government policies on the conduct of cultural activities is necessary to empower LGUs to initiate and undertake cultural development and promotion activities.
- **Strengthen the protection of the rights of vulnerable sectors to access**

cultural resources and live a life free from discrimination and fear. The membership of vulnerable sectors (IPs, women, youth and children, differently-abled persons) in local governance shall be promoted and institutionalized. This will allow them to participate in the formulation of policies and measures that concern their sector.

- **Develop cultural assets in the region.** This is necessary to broaden access to cultural resources and activities in the region, considering the geographic situation of the country. Assets include historic and cultural complexes that can serve as hubs for cultural education, entertainment, and tourism, which can contribute to economic growth.

PART III

INEQUALITY- REDUCING TRANSFORMATION ("PAGBABAGO")



08 Expanding Economic Opportunities in Agriculture and Fisheries

Expanding Economic Opportunities in Agriculture and Fisheries

The agriculture and fishery (AF) sector plays crucial roles in the economic development of our country. The AF sector provides food for our daily nutritional needs at the same time provides employment to about 40 percent of the Bicolanos especially those in the rural areas who depend their livelihood on farming, fishing, and livestock and poultry raising. The AF sector is a major contributor to exports especially abaca, coconut, and marine products. It provides the needed raw materials of the manufacturing industry to create another product. In many developed countries, the agriculture sector has been strengthened first because it supports the other sectors of the economy by supplying the needed raw materials.

Under the pillar on “Pagbabago” or reducing inequality, economic opportunities in agriculture and fisheries shall be expanded.

Assessment and Challenges

The agriculture, forestry and fishery (AFF) sub-chapter of the Updated Bicol RDP 2011-2016 aimed to provide adequate and quality technical assistance, extension services, agricultural inputs, and infrastructure facilities to farmers and fisherfolks.

The Plan targeted an increase in the AFF gross value added (GVA) annual growth rate of 0.7 percent. From 2011 to 2015, it recorded an average growth rate of 2.5 percent annually exceeding the annual target. However, the sector was not able to sustain its growth because of its vulnerability to climate related events.

The AFF sector only performed well in 2012. It continued to slow down until

2015 due to the impact of calamities such as tropical cyclones (TC) and El Niño. Some crops, like coconut and abaca, have not fully recovered when struck again by another TC. There was also minimal increase in the production of rice, high value crops (HVC), livestock, and poultry. The AFF sector was further pulled down by the decline in the production of corn, coconut and sugarcane, while fish production manifested a downward trend.

Palay production in 2012 showed a rapid growth of ten percent from negative 0.9 percent in 2011. The production in the succeeding years had been sluggish but managed to stay afloat with an increase of 0.5 percent by the end of 2015. Despite

the slow growth of palay production, the Bicol region, with its 892,000 hectares of agricultural area, remained one of the top rice producing regions and has maintained its status as the sixth largest producer of palay in the country. The slow growth of palay production in 2011 was attributed to TC Bebang and the eruption of Mt. Bulusan, while in 2014, production was affected by TC Amang, Glenda and Ruby. The rainfed farms were the most affected areas by the El Niño.

On corn production, the region maintained its three percent share of the national production despite the drop in production in 2015 due to the intense heat and prolonged dry spell that prevailed in the region during the period.

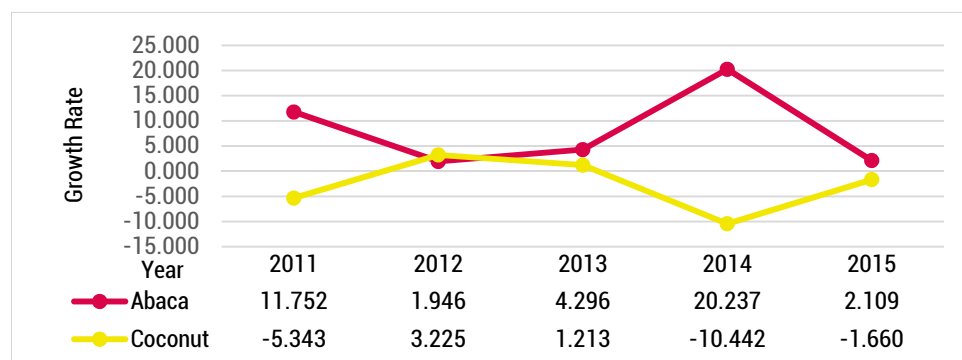
The negative impacts of calamities on rice and corn that affected the region were cushioned by government interventions, such as (a) providing submergence, drought tolerant, early maturing, and saline tolerant rice varieties; (b) distribution of open pollinated corn varieties; (c) soil fertility mapping; (d) balance fertilization and soil amelioration through lime application and biological control; and (e) market matching.

Abaca production managed to grow at an average growth rate of nine percent despite the occurrence of TC and prolonged dry spell. The Bicol region contributed 42 percent of the country's

production output of 70,356 metric tons (MT) followed by Eastern Visayas region at 18 percent. The province of Catanduanes remained as the major abaca producer registering 82 percent of the total production in the region. In 2012, the abaca industry deflated as world market experienced a slowdown. Growth also slowed down in 2014 after TCs Amang, Glenda and Ruby hit the region and later affected by El Niño. The Philippine Fiber Development Authority (PhilFIDA) continued to enhance and improve the abaca farms by providing the farmers with varieties that are resistant to pests and diseases, and taught farmers the proper grading of fibers to command higher price. The farm gate price of abaca went up from PhP42.43 per kilogram in 2014 to PhP47.48 per kilogram in 2015.

Coconut production continued to decelerate because of the frequent TCs and other calamities. The total coconut production in the region was registered at 1.10 million MT in 2015 from the 1.12 million MT in 2014 or a decline of 1.7 percent which is equivalent to 18,668 MT. The decline was caused by TCs Nona and Amang. The provinces of Camarines Norte, Catanduanes, and Sorsogon registered a small increase in production. The combined production of Camarines Sur, Masbate and Camarines Norte was 77 percent of the total production in the region.

Figure 8.1 Abaca and Coconut Growth Rates, Bicol Region: 2011-2015



Source: PSA

The Philippine Coconut Authority (PCA) was able to prevent the entry of the destructive cocolisap infestation in the region. The Php12 million request of the Regional Development Council (RDC) 5, approved by then Secretary Pangilinan of the Presidential Assistant for Food Security and Agricultural Modernization, was used to mitigate cocolisap infestation in the region.

Coconut planting was sustained through the participatory incentives-based approach, a program of PCA where farmers were given monetary reward for every live coconut plant. Coconut farmers were encouraged to inter-crop cacao and grow livestock in their coconut farms. New markets for coconut emerged with the establishment of Peter Paul Coconut Water Corporation in Sorsogon, Dignity Coconuts, and Primex in Albay. These companies buy whole nuts which are processed to coconut-based products such as virgin oil, flour, milk, cream, coco water concentrate, creamed coconut, coco chips and other desiccated coconut products.

On livestock, production from 2011 to 2015 showed an annual average growth rate of one percent with goat production recording a steady increase while carabao production posted a minimal increase. Intensified artificial insemination (AI) program of the Department of Agriculture (DA), in collaboration with the different LGUs, and the stock infusion and breeder base expansion program, provision of drugs and biologics (antibiotics, dewormer and vitamins) contributed to the increase in livestock production. The implementation of regulatory quarantine advisories and policies at the designated points of entry of animals, close monitoring and surveillance avoided the harmful effects of foot and mouth disease in the livestock industry in the region.

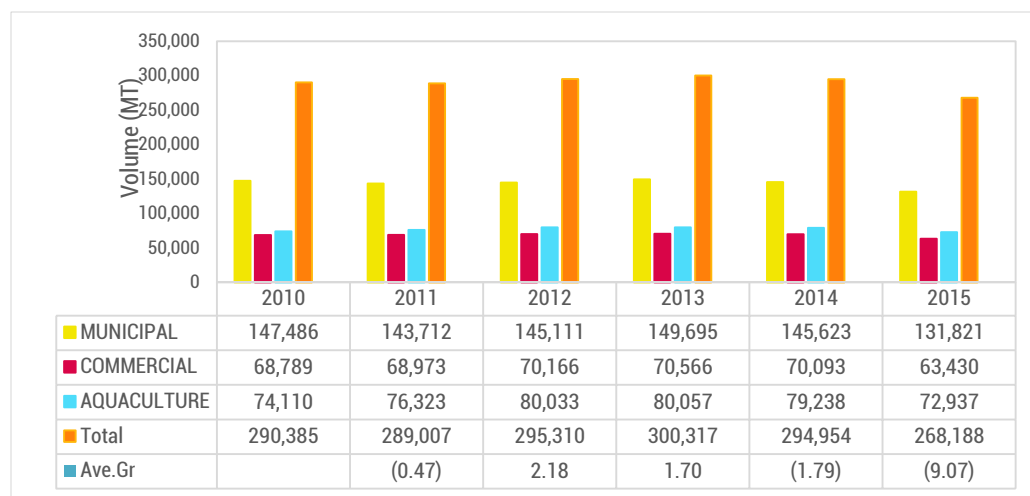
On poultry, production grew by six percent largely from chicken production with an annual growth rate of four percent. Poultry production remains to be dominated by Camarines Sur having a share of more than half of the total poultry inventory. The poultry production managed to recover from the drop in production in 2012. Duck

production only recovered in 2014. In 2015, the total poultry inventory was registered at 10.4 million animals, an increase by 20 percent in 2014. Of these, 46 percent were native chicken and 44 percent were broiler chicken while the rest were layers and ducks. The production of eggs was significantly affected by the changing climatic conditions which caused a slump of 16 percent in production or from 18,066 MT in 2014 to 15,083 MT in 2015. The implementation of regulatory quarantine advisories and policies at the designated points of entry of animals, close monitoring and surveillance avoided the harmful effects of avian influenza in the poultry industry in the region.

The production of fish and other marine products continued to decline, except in

2012 and 2013 when positive growth rates were recorded. Fish production was predominantly coming from municipal fishing which accounted for 50 percent of the total production. Among the six provinces, Camarines Sur shared the highest fish production followed by Camarines Norte and Masbate. The adverse weather conditions significantly affected the fishery sector. The El Niño negatively affected aquaculture due to the drop in water level in fish ponds and the increase in water temperature, while TCs destroyed fish cages and pens, fishing boats and gears, and port infrastructure. The several gale warnings issued by Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) also prevented commercial and municipal fishing operations.

Figure 8.2 Fishery Production, Bicol Region: 2010-2015



Source: PSA

The agriculture and fishery sector of the region is faced with the following challenges:

Low Farm Productivity. The contributing factors to the low farm productivity are:

- **Low farm mechanization.** Small farmers still use the traditional methods using manual tools, and other traditional farming techniques. The farmers rely heavily on manual labor for land preparation, planting and harvesting. The small farm size may also be a factor since farm mechanization is expensive and the farmers have limited access to financing.
- **Inadequate post-harvest and processing facilities.** These facilities are important in reducing production losses, reducing labor costs and ensuring the right quality of produce. The lack of storage facilities hampered the farmers and fisherfolks to store their produce when prices are low or forced to sell them to traders at a much lower price.
- **Lack of irrigation facilities.** The irrigation system in the region is not sufficient to cover the needs of the farmers. Irrigation development in the region is low at 58 percent of the potentially irrigable. The construction of new irrigation system is overtaken by repair and rehabilitation works.
- **Competing land use.** There is rampant conversion of agricultural land into residential subdivisions,

commercial and industrial parks or resorts.

- **Poor farm management practices.** These resulted to the degradation of soil nutrients resulting to low fertility because of small farmers' reliance on chemical-based fertilizers or pesticides that destroy soil productivity over time. Only a few practice organic farming. Regionwide, there are 49 techno demo and training farms that are in full operation equivalent to 25 percent of the targeted 44,600 hectares or five percent of the total agricultural area of 892,000 hectares.
- **Limited access to credit and insurance.** Small farmers and fisherfolks cannot utilize the appropriate type of technology due to financial constraints. They are considered as risky borrowers who often rely on loans. They usually find it difficult to comply with the bank's stringent process and requirements and complain with the high interest rates. In addition, most of these financial institutions are located in urban area which are inaccessible to farmers and fisherfolks who reside in the rural areas. Because of these, small farmers and fisherfolks depend on unregulated informal sources which have no provisions for insurance and impose exorbitant interest rates. Many small farmers and fisherfolks are also unprotected from extreme weather shocks due to limited access to credit and insurance. As a result, the situation of these small farmers and fisherfolks is aggravated when calamities strike.

- **Mono-culture practices.** Most farm lands are planted to one kind of crop during the year. This limits the productivity of the land.
- **Coral-reef destruction, pollution of coastal and marine resources, mangrove forest destruction, and siltation.** Although the region has vast fishing grounds, there are illegal, unreported, and unregulated fishing activities.
- **Inadequate support for research and development.** The research activities on production and postharvest technology that will equip the farmers to produce globally competitive products is insufficient. The R&D needs to focus on increasing productivity and improving quality that meet the demand and standard of the local and international market.
- **Poor fish trading facilities.** Most of the fish trading facilities, including some of the regional fish ports, municipal fish ports, and wet markets, need improvement including facilities for proper handling and storage.
- **Inefficient agricultural extension service.** There is inefficient agricultural extension services due to lack of technical personnel from the LGUs and the ageing extension workers. The deficiency will be aggravated if vacancies are not filled resulting from the retirement of many agriculture extension workers. Based on a survey conducted by the Agricultural Training Institute, almost half of the extension workers are aged between 43 to 65 years old. The role of extension services is invaluable in educating the farmers on modern agricultural technologies, thus improve productivity. It is also critical to move research from the laboratory or field into innovative practices and matured technology which is done by the agricultural extension workers. They also provide market information and access to markets beyond their localities that will give them better and fairer income.
- **Ageing farmers and fisherfolks.** The sector's workforce is getting older with an average age of 57 years old. This is alarming because of the future gap which may pose threat to food security and sustainability. Farmers would not encourage their children to pursue an agricultural career thinking that it is not promising, thus, their children pursue other career and work in urban centers. Education must play a critical role in changing the mindset of these farmers.
- **Security threat.** Some land owners chose not to cultivate their agricultural lands for fear of being harassed by insurgents.
- **Low competitiveness of AFF products**
- **High cost of production.** The cost of farm inputs such as fertilizers and pesticides, livestock and poultry feeds, accounts to 20 to 30 percent of total production cost. Prices of these farm inputs are dependent on the world market. Any increase in price of these

commodities reduces the income of the farmers. Farm labor is also difficult to find because of the preference to employment opportunities in the urban centers and abroad. In rice production for example, labor cost already represents about 60 percent of the total cost of inputs.

- **Inadequate access that connects production areas to markets.** Farm-to-market roads (FMRs) and secondary roads that will facilitate the transport of agricultural products within and outside the production areas are inadequate. An efficient road transport will reduce post-harvest losses due to reduced travel time, improved quality, reduce transport and handling cost, and promote other socioeconomic activities that will improve the farmers

and fishers' income. The FMRs however are of low quality and quickly deteriorate over time when used by overloaded trucks, while some FMRs are not connected to major roads.

Threats brought about by climate change – tropical cyclone, heavy rainfall, drought, and increase in temperature. The region's geographical location makes it susceptible to various hazards such as TCs, floods, landslides, droughts, volcanic eruption, and earthquakes. The region's vulnerability to these hazards has serious and long lasting impact on crop yield and on the livelihoods of vulnerable farmers and fisherfolks. It also has an impact on the attitude of farmers in improving their productivity because of fear that their investments will just be lost from these calamities.

Strategic Framework

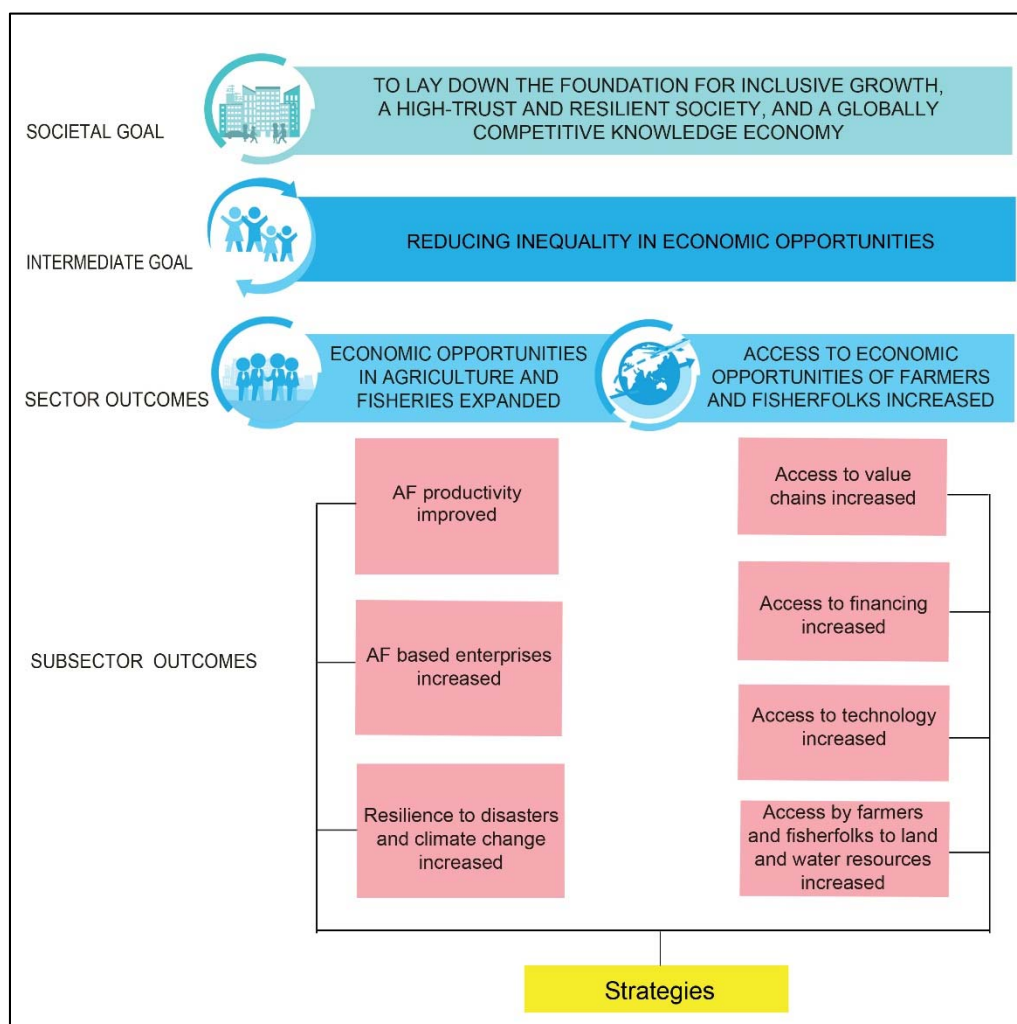
Expanding economic opportunities in agriculture and fishery coupled with increasing access to economic opportunities of farmers and fisherfolks will contribute to reducing inequality or “*Pagbabago*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been achieved: (a) agriculture and fishery improved; (b)

agriculture and fishery-based enterprises increased; (c) resilience to disasters and climate change increased; (d) access to value chain increased; (e) access to financing increased; (f) access to technology increased; and (g) access of farmers and fisherfolks to land and water resources increased. Figure 8.3 presents the Strategic Framework to Expand Opportunities in Agriculture and Fisheries.

Targets

The Bicol RDP 2017-2022 targets to increase the gross value added (GVA) in AFF from PhP33 billion (at constant 2000 prices) in 2015 and the agri-fishery labor productivity from PhP37,900 in 2015. The number of agri-fishery based MSMEs shall be increased from 525 in 2015 and the cost of damage to agriculture and fishery sector shall be reduced from PhP760 million in 2015.

Figure 8.3 Strategic Framework to Expand Opportunities in Agriculture and Fisheries, 2017-2022



Strategies

The following strategies will help achieve these subsector outcomes to address the challenges presented above:

Outcome 1: Economic Opportunities in Agriculture and Fisheries Expanded

Subsector Outcome 1: Agriculture and fishery productivity improved

The necessary support services shall be provided to improve productivity and sustainably boost local production. The following strategies shall be undertaken:

- **Provide infrastructure facilities.** Irrigation facilities and FMRs shall be provided. New irrigation systems shall be constructed in potentially viable areas. Irrigation shall focus on the construction, installation, and rehabilitation of small scale irrigation project/systems (SSIPs); maintenance of the national and communal irrigation systems; and adoption of an integrated water resource management practices, and watershed management approach. Supplemental irrigation for rice, corn and other HVCs to boost productivity shall be provided by the DA in areas not served by the National Irrigation Administration (NIA). The FMRs shall be provided to facilitate the transport of agricultural products within and outside the production areas, reduce postharvest losses during transport, and promote economic activities that will increase farmers and fisherfolks' income. The FMRs
- **Promote utilization of farm machineries and equipment, and fishing technologies and gears.** The utilization of safe, quality, efficient and climate-resilient production and postharvest-related machineries and equipment (tractors, threshers, combined harvesters, planters and others) shall be promoted in order to minimize production losses and labor costs. Farmers and fisherfolks shall be encouraged to adopt locally manufactured and tested machinery and equipment to boost the local manufacturing industry. Processing facilities shall be established such as milling centers, rice processing centers, grain centers, dairy processing centers, and cold chain technology and facilities. The machinery, equipment and facility support programs for agriculture, fishery and MSMEs shall be provided by DA, Department of Trade and Industry (DTI) and Department of Science and

and local roads shall be connected to major road arteries from the agricultural production areas, coastal landing points and areas wherein postharvest facilities are located. The FMRs shall also adopt the standard for national highways in order to have bigger carriageway and can handle heavier loads such as the local roads constructed by the DPWH under the DOT-DPWH Convergence program. The FMRs program under the DA and World Bank PRDP and Irrigation Development Program of NIA shall be pursued. (*Refer to Chapter 19*)

Technology (DOST). Republic Act 10601 or the Agriculture and Fisheries Mechanization (AfMech) Law shall be implemented. However, there shall be a social policy for farm laborers that may be displaced due to farm mechanization. The Bureau of Fisheries and Aquatic Resources (BFAR) shall establish and operationalize the community fish landing centers and fish processing plants to improve fisheries post-harvest and cold chain technology and facilities.

- **Promote quality of inputs.** The quality of seeds and broodstock supplied to the farmers shall be ensured. A modern, high yielding and climate resilient seeds and planting materials, broodstock and other similar interventions shall be provided to farmers and other beneficiaries engaged in agricultural activities. Animal health and breed shall be improved, and disease free and high yielding varieties of planting materials shall be made available to the farmers. These will be done through the production support programs of the DA, PhilFIDA, PCA and BFAR.
- **Strengthen capacities on research and development.** Investments in R&D especially those that generate appropriate technologies and good farm management practices shall be augmented. The R&D shall focus on generating new knowledge, information and innovation. The existing scientific knowledge base (basic research) shall be enhanced and practical applications of the existing

scientific knowledge base (applied research) shall be generated. The technology commercialization and adoption of basic and applied research shall be done by research institutions, state universities and colleges (SUCs) and the private sector through the intensified conduct of midstream and downstream R&D projects to include localizing or adopting technologies up to the farm level. Extension support shall be strengthened by LGUs for greater adoption of technologies. Personnel of the research institutions, SUCs and the private sector shall be capacitated. The R&D programs of agencies and SUCs and the extension support, education and training programs shall be undertaken. The Bicol Research and Development Committee (BRDC) of the RDC shall be institutionalized. The BRDC shall provide the direction of the R&D agenda in the region. (*Refer to Chapter 14*)

- **Pursue effective fishery resource management in the context of “Blue Economy”.** The “Blue Economy” will focus on food security, promoting sustainable marine development and management, and creating wealth-generating opportunities based on inclusive, oceans-based economic growth. The region is rich in coastal and marine resources, when harnessed sustainably, can provide viable solutions toward achieving food security and inclusive growth. The following actions shall be undertaken: (a) fully implement fishery regulations including the strengthening of measures against illegal, unreported

and unregulated fishing, implementation of boat/vessel and gear licensing, and monitoring of compliance with catch documentation; (b) intensify IEC campaign on resource conservation and compliance to fishery laws; (c) establish fishery reservation and conservation areas; (d) implement close season for selected species in some fishing areas; and (e) provide livelihood to affected fisherfolks.

- **Develop the environment for the practice of agri-fishery professionals.**

Positions for municipal agriculture development officer shall be created to integrate DA services at the LGU level. The DA shall have an agriculture development officer in every municipality to integrate all their services. There is also a need to review the decentralization of agriculture extension services from DA to LGUs.

- **Enforce and maintain a uniform and standard classification of agricultural products.** This aims to increase the quality and value of agricultural commodities pursuant to the Philippine National Standards of the DA-Bureau of Agriculture and Fisheries Standards. The DTI shall provide consumer awareness and understanding not only on the standards, but also on prices, product quality and safety.

Subsector Outcome 2: Agriculture and fishery based enterprises increased

- **Promote diversification.** Diversification shall be promoted by

encouraging the production of commodities with high value-adding and export potential such as HVCs, livestock, and marine and aquatic products. Training on farm management and advisory services shall be provided. Farmers and fisherfolks shall be encouraged to adopt good agricultural practices (GAP), institutionalize good aquaculture practices (GAqP), and good handling practices (GHP) through the provision of extension support, education and training services to fisherfolks.

- **Support the priority provincial commodities.**

Priority provincial commodities shall be supported such as abaca, pili, sweet potato, livestock (goats and dairy cattle), cassava, pineapple, mud crabs, seaweeds, native chicken, taro, organic rice, and mango under the PRDP.

- **Strengthen linkage with agro-processing industry.**

Linkage with agro-processing industry shall be strengthened through greater participation in effective value chain to eliminate unnecessary intermediaries and make marketing channels more efficient. Participation in local and international agri-business enterprise-related activities shall be encouraged to establish local and global network. Market facilitation events shall be conducted such as trade fairs and market matching activities. The *Gayon Asin Orgullo Kan Bikol* (G&OKB) trade fair is successfully being undertaken annually. The DA shall also

implement marketing development programs while BFAR shall provide market development services to expand market opportunities for fish and fishery products and promote competitiveness of fishery products.

- **Capacitate agri-fishery based MSMEs.** Agrarian reform beneficiary organizations shall be trained to manage agri-fishery enterprises. The Cooperative Development Authority (CDA) shall continuously provide assistance to cooperatives.
- **Ensure compliance to regulations and standard.** Compliance to regulations and standard shall be ensured so that the quality of the region's agricultural and fishery establishments, vessels, machineries, facilities and products are compliant to national and international regulations and standards relative to client and consumer acceptability, health and safety.

Subsector Outcome 3: Resilience to disasters and climate change increased

- **Enhance production opportunities in less vulnerable areas.** Integrated production and farm diversification shall be promoted in the region to build agricultural resilience of local communities. The development, updating and familiarization of cropping calendar model shall be enhanced to adapt on the changing climate. Adoption of climate and disaster resilient crop varieties, and simultaneous cropping and harvesting

practices shall also be encouraged to maximize agricultural production.

- **Identify households and communities at risk.** The conduct of hazard and vulnerability assessment particularly at the local level shall be given priority to identify the degree of risks to which the communities are exposed to. Communities located in hazard prone areas shall be supported with appropriate DRR-CCA interventions to reduce disaster risks. An updated 1:10,000 scale flood and landslide susceptibility maps shall be provided to LGUs as reference for development planning. (*Refer to Chapter 20*)
- **Provide mitigating measures from hazards.** This shall be done through engineering and non-structural measures. Adoption of disaster resilient infrastructure facilities shall also be promoted. (*Refer to Chapter 19 and 20*).
- **Strengthen the agricultural knowledge management system.** Strengthening the agricultural knowledge management system shall be adopted as key strategy to achieve agricultural resilience. Trainings and other capacity building activities aiming to increase the knowledge, skills and awareness of farmers, fisherfolks, LGUs and other stakeholders on disasters and climate change shall be given priority. The IEC campaigns shall also be enhanced, and information sharing among stakeholders on climate and disaster

resilient farming practices shall be promoted. (Refer to Chapter 20)

Outcome 2: Access to economic opportunities of small farmers and fisherfolks increased

Subsector Outcome 1: Access to value chains increased

- **Link remote production areas to markets.** This will be done through the construction of roads, ports and logistic support facilities such as food terminals or “bagsakan” areas by the LGUs. (Refer to Chapter 19)
- **Capacitate small farmers and fisherfolks on value adding.** Value adding activities shall include processing, packaging and marketing, and compliance to product standards and certification that meet the demand of local and international market. Support shall be provided to farmers who will be affected by the Quantitative Restriction on rice on June 30, 2017 and those affected by mechanization. These shall be provided by DA, PHILFIDA, PCA, and BFAR.
- **Organize small farmers and fisherfolks.** With the assistance from DA, BFAR and CDA, small farmers and fisherfolks shall be organized into formal groups and shall be linked to processors, enterprises, and agro-enterprises.

Subsector Outcome 2: Access to technology increased

- **Promote technologies.** Technologies shall be promoted to reduce post-harvest losses, maintain the quality and increase the value of agricultural and fishery products.
- **Intensify IEC and capacity building activities.** Aggressive IEC and intensive capacity building activities shall be intensified to encourage small farmers and fisherfolks to adopt better and new technology. Demo farms, farmers’ field school and technology fora or clinics program shall provide the venue to educate the farmers and fisherfolks. Agricultural extension support services shall be strengthened for greater adoption of technologies. (Refer to Chapter 14)

Subsector Outcome 3: Access to financing increased

- **Provide risk insurance.** Risk insurance shall be provided to small farmers and fisherfolk by implementing an innovative crop insurance system such as a weather index based insurance scheme.
- **Provide credit financing.** The small farmers and fisherfolks shall be provided with an affordable and easily accessible formal financing by implementing an innovative loan financing window with responsive credit delivery mechanism. A law on affordable and accessible credit for small farmers and/or fisherfolks

should be enacted and a credit free irrigation, seeds, and inputs should be provided. (*Refer to Chapter 15*)

- **Provide subsidy to farmers and fisherfolks.** Subsidy to farmers and fisherfolks shall be provided to be competitive in lieu of the impact of the trade liberalization, ASEAN integration and the lifting of quantitative restrictions on rice importation.

Subsector Outcome 4: Access by farmers and fisherfolk to land and water resources increased

- **Protect the land tenure security.** Land tenure security of agrarian reform beneficiaries (ARBs) shall be protected by completing the land acquisition and distribution and installing the ARBs upon issuance of Emancipation Patent/Certificate of Land Ownership Award and fast-track the resolution of agrarian related cases.
- **Implement the no conversion policy of irrigated lands.** No conversion policy of irrigated lands shall be

implemented as provided under the CARPER and Agriculture and Fishery Modernization Act (AFMA), and revitalize the implementation of the SAFDZ. A five-year moratorium on land conversion of prime agricultural land and a higher tax rate on land conversion to non-agricultural uses shall be implemented.

- **Complete the delineation and delimiting of municipal waters.** The delineation and delimiting of municipal waters shall be completed by the National Mapping and Resource Information Agency (NAMRIA) including the issuance of local ordinance by the concerned municipal local government unit as provided under the Department of Environment and Natural Resources (DENR) Department Administrative Order No. 2001-17 (June 13, 2001).
- **Provide fisherfolks with settlement areas.** Disaster-resilient settlement areas shall be provided to fisherfolks by the National Housing Authority (NHA) pursuant to the Fisheries Code. (*Refer to Chapter 12*)

09

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

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

In 2015, the growth of the region's economy was driven by the industry sector which grew by 5.3 percent in 2014 to 23.7 percent in 2015. The expansion of the industry sector in the region is vital in laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. The increased access to economic opportunities for MSMEs, cooperatives, and OFs is also vital so that more business activities that provide employment to reduce inequality and poverty are created. Considered as the region's economic drivers are tourism and services, in particular, construction and transportation.

Assessment and Challenges

The Bicol RDP 2011-2016 aimed to provide adequate and quality technical assistance, promotion services, and infrastructure support facilities to MSMEs and exporters; and adequate and quality tourism promotion services, and tourism infrastructure facilities. The Plan targeted an increase in the gross value added (GVA) in manufacturing and trade, and an increase in foreign and domestic tourist arrival.

The GVA at constant 2000 prices in manufacturing increased from Php3.8 billion in 2011 to Php5.4 billion in 2015. The growth was attributed to the higher production of processed food and beverages. Though GVA grew on the average from 2011 to 2015, it actually decelerated from 19 percent in 2014 to

3.7 percent in 2015. The deceleration was due to the impact of disasters resulting from natural hazards and El Niño that also caused the slowdown in the AF sector. Since the major products manufactured in the region are agriculture-based, these disasters inhibited the growth of domestic production. The region's 2015 GVA was among the lowest in the country representing only 0.3 percent.

The major agriculture-based products manufactured include copra milling for crude and edible cooking oil and copra cake, milling of cane to produce sugar and molasses, manufacturing of abaca fibers into handicrafts and cordage, and marine products. The Goodfound Cement Corporation in Albay is the only

large manufacturing industry producing cement using local non-metallic minerals. In 2014, 16 million bags of cement were produced generating total sales of PhP3.2 billion. It supplied the cement requirements in Eastern Visayas for the Typhoon Yolanda rehabilitation. In 2015, production declined to 5.5 million bags due to the lack of shale clay, a raw material for cement production.

Most of the region's small scale manufacturing industries are engaged in food preservation, woodcraft and furniture making, loom weaving, fibercraft, shellcraft, pottery, rattan craft and pili confectionery. However, productivity remained low. To improve productivity and competitiveness, the MSMEs and cooperatives were assisted in developing technological innovations and provided with shared service facilities (SSFs) such as equipment or machinery, technology, systems, skills and knowledge.

To increase investments, trade fairs, productivity seminars, product development clinics, and marketing assistance were extended to upgrade the knowledge and skills of existing and new entrepreneurs.

From 2011 to 2015, the tourism industry played a vital role in the growth of the region's economy. The industry has contributed to the attainment of sector outcomes of the Bicol RDP 2011-2016. In 2015, Bicol's economy was the fastest growing among all 17 regions in the country as its GRDP grew by 8.4 percent, exceeding RDP target of 6.7 percent. The growth of the region's economy was

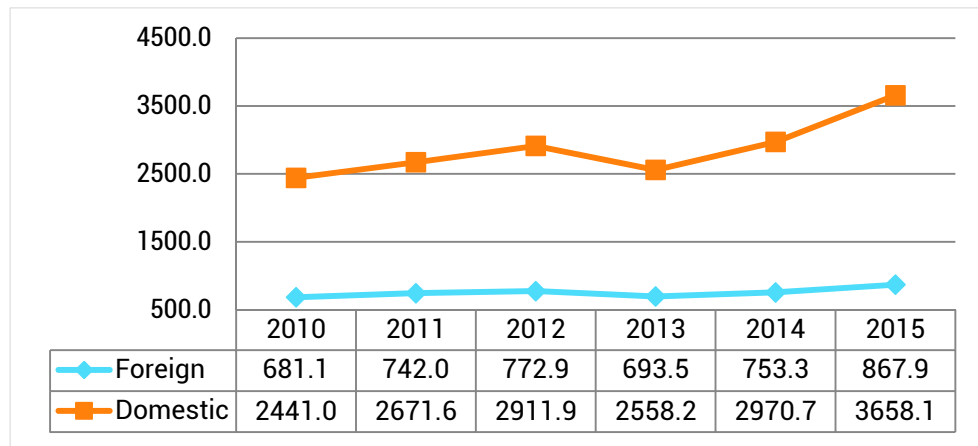
driven by the industry and services sectors, which grew by 5.3 percent in 2014 to 23.7 percent in 2015, and from 5.4 in 2014 to 7.5 percent in 2015, respectively. The growth in services sector was led by the expansion in the Transportation, Storage and Communication, and Other Services. The expansion in these subsectors was fuelled by the increase in tourist arrival by 21.5 percent from 3.7 million in 2014 to 4.5 million in 2015.

For the last six years, convergence programs were implemented in the region with special funding from the national government to provide access to tourism destinations and sites. From 2011 to 2016, the DOT-DPWH Tourism Road Infrastructure Priority Project (TRIPP) implemented 104 road projects in the region with a total cost of PhP7.1billion. It has provided links from the gateways (air, land and sea) to the major service centers and tourism sites. However, more infrastructure support facilities are needed in order to provide safe, comfortable and seamless travel around the region. The ALMASOR and TRIPLE C Area Development Plans (ADPs) have identified priority programs, activities, and projects in the tourism development areas. These are road and railroad improvement projects, road safety facilities and signages, seaports and airports development projects, water and sanitation projects, and efficient telecommunication facilities, which will support the delivery of quality tourism services. National government support in terms of funding is crucial for the implementation of these programs, activities, and projects.

Figure 9.1 shows that tourism arrival has been increasing except in 2013 which declined by 12 percent due to the slowing down of operations of the Camarines Sur Water Sports Complex. When it resumed full operation in 2014, the province of Camarines Sur regained its rank as number one among the provinces with highest growth rate in tourist arrival. Albay also showed a remarkable

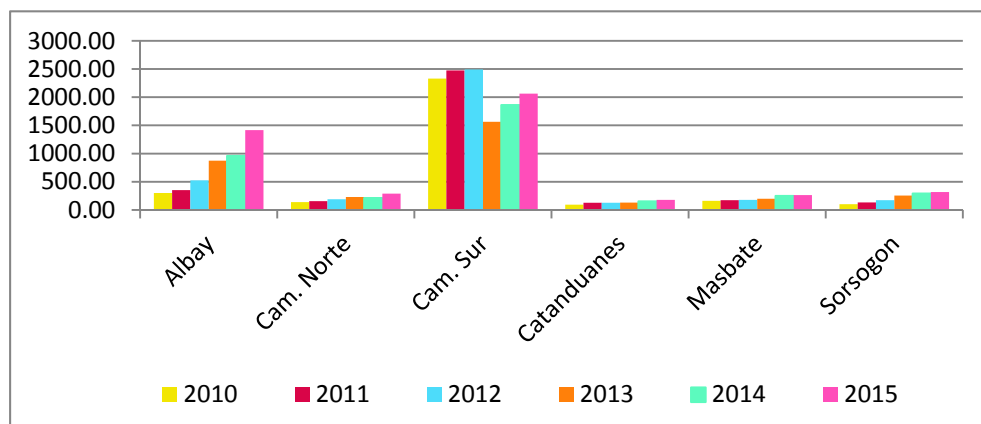
performance with an average growth rate of 38 percent. The strong leadership of the provincial and municipal government units in developing and promoting its destinations contributed to the sustained growth in tourist arrival (Figure 9.2). Overall, the total tourist arrival in the region registered an average growth rate of nine percent from 2010 to 2015.

Figure 9.1 Tourist Arrival, Domestic and Foreign, Bicol Region: 2010-2015, In Thousands



Source: DOT Region 5

Figure 9.2 Tourist Arrival, By Province, Bicol Region: 2011-2015, In Thousand



Source: DOT Region 5

Tourist receipts increased from approximately PhP2 billion in 2013 to PhP2.2 billion in 2014. Average daily expenditure of foreign tourists during the year was estimated at US \$90 per day and PhP1,200 per day for domestic tourists. The contribution of tourism to the economy was estimated at 7.8 percent in 2014, as measured by the share of tourism direct gross value added (TDGVA) to total GDP. Tourism cuts across different sectors of the economy and the TDGVA serves as the indicator to measure the value added of different industries in relation to tourism activities of both inbound and domestic visitors in the country. The TDGVA amounted to about PhP982 billion in 2014, higher by 14 percent compared to previous year's PhP862 billion.

The tourism governing structure at the regional level has been institutionalized through the reorganization of the Bicol Regional Tourism Committee (BRTC) per RDC Resolution No. 12-A, s. 2014 from an ad hoc Technical Committee on Promoting Tourism. The BRTC is a special committee under the RDC that provides the critical institutional structure and facilitates the coordination and the management of promoting tourism in the region. The RDC, through the BRTC, has coordinated the implementation of priority programs, activities, and projects in the ALMASOR and TRIPLE C tourism ADPs. The formulation of the two ADPs including the investment programs was the major accomplishment of the BRTC since its organization.

The industry and services sectors are faced with the following challenges:

Reducing high cost of doing business.

The high cost of doing business is attributed to several factors, among which are (a) the high cost of power and water; (b) the slow and expensive internet connection; and (c) the high transport cost (production and service delivery). Ease of doing business is also a challenge because business registration and licensing in some LGUs still needs to be streamlined.

Enhancing access and connectivity.

Improving market access and connectivity is a major challenge in terms of (a) opening new roads and improving existing roads; (b) improving the airports; (c) building and improving ports; (d) improving telecommunication facilities; (e) opening of financial institutions and installing additional automated teller machines (ATMs) in the primary and secondary service centers; and (f) improving access to potable water supply.

Providing adequate disaster-resilient and reliable infrastructure.

These include support infrastructure such as roads, bridges, railways, airports, seaports, clean power supply, and internet connectivity. Agricultural production areas are not adequately connected to processing and marketing centers due to the lack of FMRs and secondary roads that will facilitate the transport of products. The PNR Mainline South is not operational while the

airports have no night landing facilities, except in Legazpi City, where night landing operations started in October 2016. The unreliable power supply due to frequent brownouts has to be addressed despite the region's hosting of power generating plants. Some sections of Maharlika Highway (AH26) are not passable due to flooding in the Bicol river basin and some FMRs are not passable during monsoon rains.

Developing and marketing competitive products and services. These should be given priority attention by both the public and private sectors. There were government programs infused in the region to develop more products especially on tourism through the BuB Project and the Local Governance Support Program for Local Economic Development (LGSP-LED). These interventions of the government have opened great opportunities for the low class municipalities by providing access to government funds and develop their potentials. For tourism, however, there was a low level of public awareness both on the potentials of natural and cultural resources, and on the economic benefits from the tourism sector. This is manifested by the lack of investments in outdoor activities and adventure products which have to be initiated by the private sector. The lack of DOT-accredited tourism oriented establishments and the non-compliance with general labor and occupational safety and health standards of the Department of Labor and Employment (DOLE) also challenge the tourism industry. Only few tourist establishments in the region have the service quality seal

of recognition. These are essential to the industry because tourists coming from affluent countries are mindful of the quality of services that business establishments provide for their comfort and safety. With the ASEAN economic integration, the region should upgrade its products and services to conform to the ASEAN Economic Community (AEC) standards.

Developing highly competent human resource for good governance. More skills training and capacity building activities are needed to equip the LGUs and industry workers. There is also skills mismatch between the technical and practical skills required by the industry aggravated by the outmigration of the educated and technically skilled human resources to Metro Manila and other urban centers or abroad.

Improving the institutional structure at the local level. There are LGUs that are not yet capable of providing an environment conducive to private sector investments. Some local authorities are constrained by the absence or un-updated land use plans, tourism plans, investment incentive codes and other ordinances, and the low capacity of LGU personnel to implement them. For the tourism sector, there are inadequate visitor management and safety measures at key sites, patchy provision of visitor accommodation particularly high quality resorts and distinctive guesthouses, and unregulated development resulting to the erosion of visual corridors on scenic highways.

Strategic Framework

Expanding economic opportunities in industry and services coupled with expanding access to economic opportunities of MSMEs and cooperatives will contribute to reducing inequality or “*Pagbabago*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been

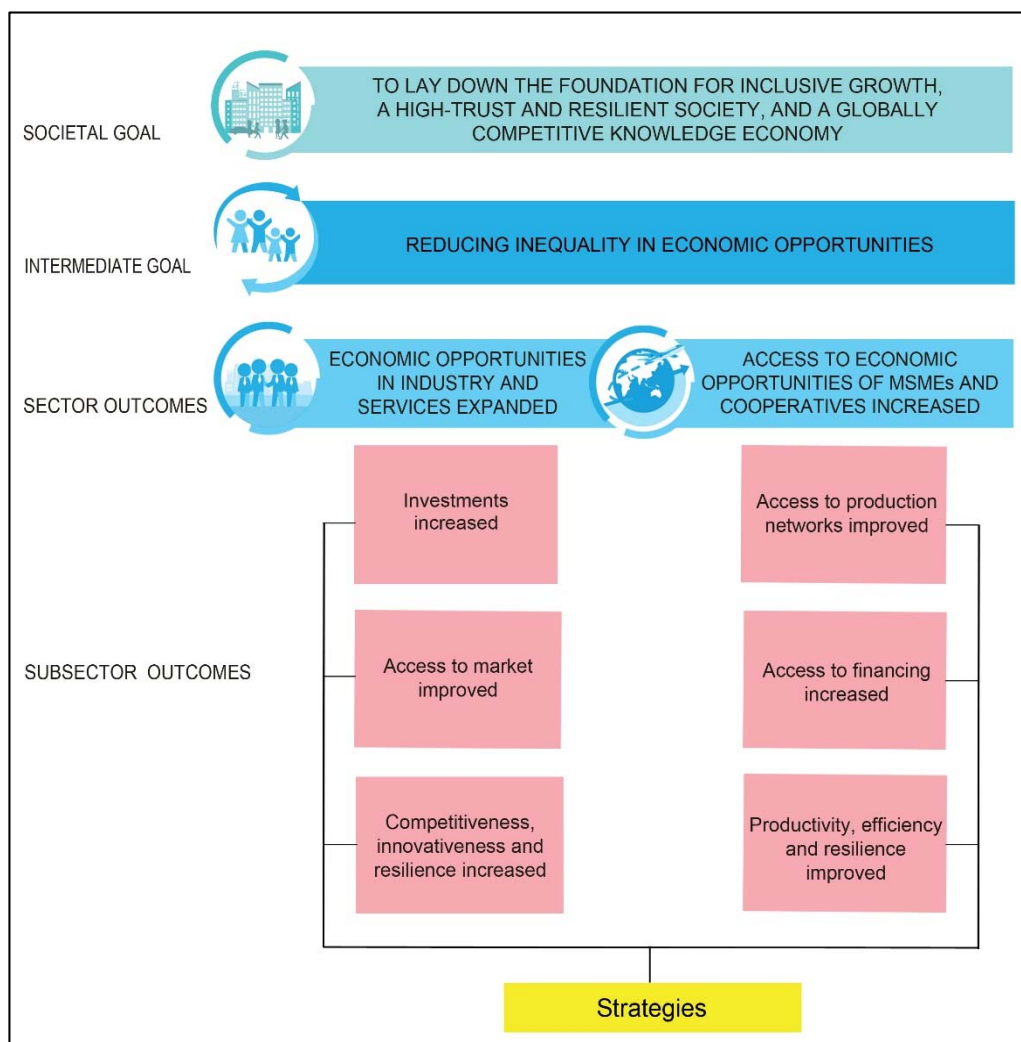
achieved: (a) investments increased; (b) competitiveness, innovativeness, and resilience increased; (c) access to market improved; (d) access to production networks improved; (e) access to financing increased; and (f) productivity, efficiency and resilience improved. Figure 9.3 presents the Strategic Framework to Expand Opportunities in Industry and Services through *Trabaho at Negosyo*.

Targets

The Bicol RDP 2017-2022 targets to increase the following: (a) GVA in Industry sector from PhP35 billion (at constant 2000 prices) in 2015; (b) GVA in Services sector from PhP87 billion (at constant 2000 prices) in 2015; (c) labor

productivity in industry and services from PhP98,138 and PhP75,662 (at constant 2000 prices), respectively; and (d) tourist arrival from 4.5 million in 2015.

Figure 9.3 Strategic Framework to Expand Economic Opportunities in Industry and Services through Trabaho at Negosyo, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Outcome 1: Economic opportunities in industry and services expanded

Subsector Outcome 1: Investments increased

- **Strengthen value and supply chain linkages.** This shall be done by promoting and developing high value and more profitable agribusiness enterprises at the same time modernize the agriculture sector to

increase productivity. Globally competitive industries and services with strong forward and backward linkages shall be developed, especially MSMEs in regional and global production networks and value chains. The industry and small-medium-enterprise development programs of the DTI and the Small Enterprise Upgrading program of DOST shall be undertaken. (*Refer to Chapter 8*)

- **Intensify investment promotion programs.** This aims to attract investments through the preparation of investment promotions collateral, participation in local and international trade fairs, and encouraging LGUs to formulate their local investment code. Bicolanos and returning OFs shall be encouraged to invest in the industry and services sectors. Programs like G&OKB shall be undertaken by DTI and DOT in partnership with other agencies, LGUs and the private sector. The DOT shall also undertake Tourism Information, Marketing & Enterprise (TIME) Center Establishment Program.

- **Enhance R&D, product development and marketing.** This move shall support manufacturing, and strengthen other sectors such as agriculture, fisheries, tourism, and other services. The R&D and innovation centers shall be established such as the R&D center for abaca in Catanduanes State University (CSU), the Bicol Innovation and Research and Technology Hub of Bicol University (BU) and the

Complementary Food Production Centers in Iriga City, San Lorenzo Ruiz, Aroroy, and Gubat and Central Bicol State University of Agriculture (CBSUA). The R&D programs in agriculture, health, energy, and emerging technology including DRRM of the three local research consortia (BCHRD, BCAARRD and BCIEERD) shall be pursued. (*Refer to Chapters 8 and 14*)

- **Increase investments in infrastructure.** The transport infrastructure and logistics shall be improved to facilitate the movement of people, goods and services and develop the ICT sector to improve knowledge and ideas and link firms to domestic and global markets. (*Refer to Chapter 19*)

Subsector Outcome 2: Competitiveness, innovativeness, and resilience increased

- **Promote investments in the production of raw materials for manufacturing.** Investments in the priority provincial commodities such as abaca, pili, sweet potato, livestock (goats and dairy cattle), cassava, pineapple, mud crabs, seaweeds, native chicken, taro, organic rice and mango shall be encouraged. A cluster-based approach shall be promoted to pursue inter-firm cooperation and agglomeration such as the Shared Service Facilities Program of DTI. Health care, tourism and the fabrication of farm machineries shall be strongly supported. The national government agencies shall provide support to the Provincial Commodity

Investment Plans (PCIPs) of the six provinces under the PRDP. The DTI shall conduct local and international exports and investment promotion activities, advocacy and capacity building activities, and engagements with strategic partners.

- **Encourage MSMEs to be environment friendly and climate smart.** The Promotion of Green Economic Development (ProGED) Programme shall be undertaken to ensure the MSMEs operates in a manner that is environmentally friendly and climate smart to be sustainable and remain competitive.
- **Improve the business climate.** Improving the business environment will attract investments in the region. The cost of doing business shall be reduced by upgrading infrastructure facilities, lowering power and water cost, simplifying business procedures, and improving the productivity levels of manufacturing companies. Business permit licensing shall be streamlined in all LGUs. The “Go *Negosyo* Act” or RA 10644 shall be implemented providing for the creation a “*Negosyo* Center” in all provinces, cities and municipalities to be supervised by the Micro, Small and Medium Enterprise Development (MSMED) Council led by DTI. The MSMED Council shall encourage public-private partnerships in the establishment and management of the *Negosyo* Centers. (*Refer to Chapters 5, 16 and 19*)
- **Improve access to technology and innovation.** This shall be undertaken

through science and technology fairs and exhibits at the national and local level and technology fora/clinics. (*Refer to Chapter 14*)

- **Improve human capital.** The education curricula shall be improved to produce graduates with the skills required by the manufacturing industry. The industry-academe linkages shall be strengthened to help meet labor market needs and reduce jobs-skills mismatches. Entrepreneurship training programs shall be provided to existing and potential entrepreneurs. The human resource capacities shall be enhanced to ensure quality product and service standards. Among other programs that shall be pursued are the technical education and skills development program of the Technical Education and Skills Development Authority (TESDA), and the tourism industry skills program of the DOT. (*Refer to Chapter 10*)
- **Improve infrastructure.** In order to improve competitiveness it is necessary to intensify the development of transport infrastructure. The infrastructure sub-index captures the availability and quality of physical infrastructure in terms of road, air and sea infrastructures. For a more reliable infrastructure facilities and services, all modes of transportation shall be integrated to provide seamless travel around the region. Although significant improvement in the region can be seen in terms of road infrastructure, more quality roads are needed to further improve access and

connectivity within the region and to the other regions of the country. Airports and seaports development with RORO service and new franchise opened shall be prioritized, expressways, road safety facilities, signages and rest areas along national highways shall be constructed, high speed trains shall be provided, and passenger terminal buildings shall be constructed. Along with these, water and sanitation and efficient telecommunications services shall also be provided. *(Refer to Chapter 19)*

Subsector Outcome 3: Access to market improved

- **Improve advocacy and capacity-building programs.** This aims to encourage businesses, especially MSMEs, to maximize export opportunities.
- **Intensify marketing and promotion of Philippine products and services and intensify market intelligence.** Promotion and marketing activities will include sustained brand awareness campaign programs, building partnerships to feature Philippine-made products, use of social media platforms, among others. Bicolanos shall be encouraged to patronize locally made products. For tourism, an expanded marketing program shall be designed and implemented that will make travel destinations easy to visit through internet online services. The travel and tourism industry shall understand and meet the evolving needs of the consumers, giving importance to ICT.

- **Encourage forward and backward linkages.** The value chain approach shall be adopted. Exporters shall be connected with multinational corporations and suppliers through business matching, trade fairs, and networking initiatives.

- **Improve infrastructure, logistics and ICT.** New improved roads, seaports and airports shall be constructed and the PNR Mainline South revitalized. Internet service providers shall upgrade their facilities that will provide excellent services in order to take advantage of the internet online services. *(Refer to Chapter 19)*

Outcome 2: Access to economic opportunities of MSMEs & cooperatives expanded.

Subsector Outcome 1: Access to production networks improved

- **Enhance the linkage between MSMEs and large corporations.** A big brother small brother approach shall be encouraged to facilitate global value chains and develop more inclusive business models and social enterprises. The MSMEs shall produce high value-added products and services instead of traditional products.
- **Adopt clustering of MSMEs.** This aims to achieve economies of scale, specialization, and innovation. The DTI shall implement the Startup Ecosystem Development Program which is an industry cluster program

to foster linkages among MSMEs and strengthen collaborative networks.

Subsector Outcome 2: Access to financing increased

- **Increase access to financing.** Loan processes for MSMEs, cooperatives, and OFs shall be streamlined and simplified. (*Refer to Chapter 15*)
- **Enhance financial literacy.** Financial literacy trainings shall be provided to MSMEs, cooperatives, and OFs and their families to help them understand and access financial products. The Bangko Sentral ng Pilipinas (BSP) shall continue to implement their financial literacy programs. (*Refer to Chapter 15*)

Subsector Outcome 3: Productivity, efficiency, and resilience improved

- **Increase access to technology.** Expand the Small Enterprise Technology Upgrading Program (SETUP) and SSFs to strategic locations where the poor resides. Existing testing, calibration, and quality assurance services shall be upgraded to broaden access of MSMEs to innovative, appropriate, and cost-effective technologies. (*Refer to Chapter 14*)

- **Encourage entrepreneurship.** Encourage families receiving OF remittances to business activities in the country. Local communities shall be engaged in community-based ecotourism activities and rural tourism enterprises. Farmers shall be encouraged to become *agripreneurs*.
- **Promote diversification.** The MSMEs shall be strongly supported in upgrading and diversifying the existing range of products available in the region. Tourism development shall not only focus on the physical endowments but also cultural offerings taking into consideration the economic, social and ecological environment that is able to handle a sustained growth.
- **Promote CCA.** This is to ensure that risks and crisis management programs are implemented. Climate-smart awareness campaigns shall be conducted for MSMEs and local authorities by providing information about suitable technologies and green financial products. The DOT shall continue to implement the Sustainable Tourism thru Environmental Protection & Climate Change Adaptation (STEP-CCA) Program and the Risk & Crisis Management (RCM) Program. (*Refer to Chapter 20*)

10 Accelerating Human Capital Development

Accelerating Human Capital Development

Under the pillar *Pagbabago*, the RDP recognizes human capital development as a means to an end (i.e., human capital as a factor of production that will contribute to regional development), but also an end in itself (i.e., development of individuals to their full potential). Human capital development entails being healthy, well-nourished, continued learning throughout one's life, and improved income-earning ability.

Assessment and Challenges

Human capital development in terms of health and education were uneven. Positive health outcomes were manifested by decreased infant mortality and prevalence of undernutrition. Likewise, basic education participation and completion rates increased. However, more needs to be done to equalize opportunities, especially for the poor and marginalized groups in the region, to have long, health, and productive lives, lifelong learning opportunities, and improved income-earning ability (Table 10.1).

Health

Infant mortality decreased but safe childbirth remains a concern. From 2011 to 2015, maternal mortality increased while infant mortality decreased. Despite the fact that 82 percent of deliveries were in health facilities, pregnant women continued to experience the “three delays” – delay in seeking professional services, delay in going to health facilities, and delay in

receiving care in health facilities. The main causes of maternal deaths were hypertensive complications and poor prenatal care. The rising incidence of teenage pregnancy and the unmet need for family planning may have also contributed to poor maternal and child health.

Children have been poorly nourished.

The Bicol RDP 2011-2016 target of 10 percent was not achieved, although the proportion of undernourished children 0-71 months old decreased. Despite the campaign on the critical first 1,000 days of the child, some LGUs did not prioritize nutrition interventions. There was also low compliance to RA No. 10028 or the Expanded Breastfeeding Promotion Act, the Milk Code, and other related laws and policies. The prevalence of stunting and wasting among children below five years old stood at 24 percent and 8 percent, respectively. Among provinces, Catanduanes had the highest proportion (18%) of undernourished children (being underweight with respect

to age) and the highest proportion of stunted children (33%) or being short for age. Masbate had the highest proportion of wasted children (9%) or being underweight with respect to height or length.

Table 10.1 Bicol RDP 2011-2016 Results Matrix Indicators (Health Sector)

INDICATORS	2011	2015	TARGET
Life expectancy at birth			
Male (years)	66	68.8	71
Female (years)	71	73.8	77
Infant mortality ratio (per 1,000 livebirths)	9.7	7.1	8.4
Maternal mortality ratio (per 100,000 livebirths)	75.2	168.8	31.6
% of facility-based deliveries	39.4	82.3	80.0
% of fully immunized children	79.1		100.0
Undernourished children 0-71 months old (%)	14.8	11.4	10.0
Contraceptive prevalence rate (%)	41.4	34.2	60.0
Philhealth enrolment (%)	80.0	93.0	100.0
% of households with access to safe water	81.8	81.5*	100.0
% of households with access to sanitary toilet facilities	67.8	68.2	79.2

* Partial data

Sources: DOH, NNC, PHIC

Progress in family planning initiatives was reversed. Unmet need for family planning in the region was 27 percent (2013 NDHS: PSA), which means that 27 out of 100 women of reproductive age were not using contraception but wished to postpone the next birth or stop childbearing altogether. Unplanned and uncontrolled pregnancies have contributed to poor maternal and child health. More household members mean additional expenses for food and other basic needs, which are not adequately provided for by poor households. The provision of family planning services has been devolved to LGUs. However, not all LGUs prioritize such services and some of them even limit the access of artificial family planning commodities. This is contrary to RA No. 10354 or the Responsible Parenthood and Reproductive Health (RPRH) Law that

seeks to provide universal access to contraception methods, fertility control, sexual education, and maternal care. This may have contributed to the decline in contraceptive prevalence rate, as noted by the Department of Health (DOH), from 41 percent in 2011 to 34 percent in 2015, thus not attaining the Millennium Development Goals (MDG) and Bicol RDP 2011-2016 target of 60 percent.

Another concern on reproductive health is the rising incidence of teenage pregnancies in the region. In 2014, based on PSA data, Bicol region registered 72 livebirths of young mothers below 15 years old, which more than doubled from 34 livebirths in 2011. Likewise, the region registered 12,628 livebirths of young mothers between 15-19 years old, which increased by four percent from 12,194 livebirths in 2011.

Access to quality health services improved but there are still gaps that need to be addressed. Access to quality health services improved with the increased coverage of the National Health Insurance Program (NHIP). The provision of health insurance relieves families from unexpected medical expenses, especially the poor and marginalized groups. As of November 2015, the Philippine Health Insurance Corporation or Philhealth has covered about 5 members and its qualified dependents. This means that 93 percent of the Bicol's population was already protected against the financial risk of being hospitalized, an increase from 80 percent in 2011, but still short of the 100 percent Bicol RDP 2011-2016 target. As of June 2016, however, Philhealth coverage was only 89 percent due to increase in population, incomplete database of dependents, and exclusion of indigenous peoples. There are 109 hospitals and 480 non-hospital facilities in the region which are accredited by Philhealth. Based on the 2015 *Listahanan* assessment of the Department of Social Welfare and Development (DSWD), a total of 983,394 poor individuals were not going to health centers.

Targets on access to safe water and sanitary toilet facilities were unmet. Safe water was made accessible only to 81.5 percent of total households (partial data only), far from the MDG and Bicol RDP 2011-2016 target of 100 percent. Based on the 2015 *Listahanan* assessment, a total of 135,334 poor households in the region had no access to safe water. Hindering factors to attaining the target include negative perception of

people on the payment of water fees and inadequate counterpart funding from LGUs for water supply projects. Likewise, sanitary toilet facilities were accessible only to 68 percent of the households, still short of the MDG and Bicol RDP 2011-2016 target of 79 percent. A total of 177,876 poor households had no sanitary toilet facilities. The lack of safe water and sanitary toilet facilities contributes to poor health of household members.

Possible scenarios in the succeeding plan period may affect the health sector.

For the period 2017-2022, possible scenarios that may affect the health sector include the administration's war on drugs and the ASEAN integration. The war on drugs has resulted to a total of 49,241 surrendering drug users (11,706 males and 296 females: partial data) as of September 2016. The number is expected to rise as the war on drugs is sustained. As of 2016, there are only two DOH treatment and rehabilitation centers, both with only a 100-bed capacity, and three non-government rehabilitation facilities in the region. The free flow of people brought about by the ASEAN and global integration will open the country and the region to communicable viruses from other countries that necessitates enhancing the capability of the health sector agencies to address such risks.

Education

Literacy and some basic education outcomes improved but not all school age children were in school. As indicated by the results from the 2013

Functional Literacy, Education and Mass Media Survey (FLEMMS) of the PSA, functional literacy rate, or the ability to read, write, and compute, increased to 87 percent, surpassing the target of 83 percent. However, not all school age children were in school. Out-of-school children, as defined in the FLEMMS, are persons aged six to 14 years who are not attending school, while out-of-school youth are persons aged 15 to 24 years who are not attending school, have not finished any college or post-secondary course, and are not working. Top reasons for not attending school are marriage, lack of family income to send children to school, and lack of personal interest. This undermines the learning abilities of the children as future workers and leaders. Poor households with out-

of-school children and youth will find it harder to stop the inter-generational cycle of poverty. There were more female youth who stopped attending school than male youth (Table 10.2).

The MDG on achieving universal primary education was not achieved, as indicated by the less than 100 percent net enrolment rate and completion rate in primary education, as well as the unequal ratio of girls and boys in primary education (Table 10.3). For school year 2014-2015, Department of Education (DepEd) indicators echo the FLEMMS results that not all school age children were in school, as reflected in the participation, completion, and retention rates.

Table 10.2 Proportion of Out-of-School Children and Youth, Bicol Region and Philippines, by Age Group and Sex: 2013

INDICATOR	BICOL	PHILS
No. of children 6-24 yrs. (in '000)	2,344	36,238
% of children & youth 6-24 yrs., both sexes	8.6	10.6
Male	6.2	7.9
Female	11.2	13.3
% of children 6-14 yrs., both sexes	2.3	3.5
Male	3.1	4.6
Female	1.4	2.4
% of youth 15-24 yrs., both sexes	16.0	17.5
Male	9.7	11.2
Female	23.1	24.0

Source: 2013 FLEMMS of PSA

The conditionality imposed to poor households to keep children in school under the Pantawid Pamilyang Pilipino Program (4Ps) contributed to the

attainment of the Bicol RDP 2011-2016 targets on participation and completion rates¹¹ in the elementary and secondary levels. However, based on the 2015 *Listahanan* assessment, a total of 203,432 poor children aged three to 17 years old were not attending school. A hindering factor is the absence of schools in remote barangays. Total number of barangays in the region is 3,473 but as of 2014, there were only 3,148 public elementary schools and 665 public high schools.

Child labor persists. The 2011 Survey on Children of the PSA estimated that 23 percent (around 472,500) of children aged five to 17 years old in the region were working. This was higher than the national average of 19 percent. The same survey estimated that Bicol region has 304,000 children in hazardous labor, the second highest in the country.

Raising the quality of basic education remains a challenge. As an indicator of the quality of basic education, the average national achievement test (NAT) score for the region of 68 percent was below the 75 percent passing mark. This was attributed to inadequate capacities of teachers and inadequate learning materials, tools, and equipment. Additional classrooms were constructed and additional teachers were hired for the

2016 implementation of the senior high school. Although the standard ratios of pupils or students to teacher, and pupils or students to classroom generally have been achieved, there is a need to hire more qualified teachers for senior high school since only half of the plantilla positions have been filled.

Skills acquired by higher education graduates do not match the skills required by higher paying jobs. The underemployment rate in the region remained high at 25 percent in July 2016, reflects a mismatch between the available skills of the labor force and the required skills in the labor market. While the reforms in basic education aim to produce job-ready high school graduates, continued reforms are needed to make the skills training programs and higher education courses more attuned to changing industry needs and labor requirements. For example, the tour guide program of TESDA should be aligned to the needs of the local and global tourism industry. In the light of the ASEAN and global integration, technical and higher education institutions should aim for international certification of courses to produce employable and globally competitive graduates.

¹¹ The participation rate is the proportion of the enrolment for the age group corresponding to the official school age in the elementary and/or secondary level to the population of the same age group in a year. The completion rate is the percentage of first grade or year entrants in a level of education who complete the level in accordance with the required number of years of study.

Table 10.3 Bicol RDP 2011-2016 Results Matrix Indicators (Education Sector)

INDICATOR	2011	2015	TARGET
Functional literacy rate (%)	79.9 (2008)	87.1 (2013)	83.1
Net enrolment rate in primary education (%)	88.7	93.9 (2014)	100.0
Primary completion rate (%)	65.7	85.1 (2014)	100.0
Literacy rate 15-24 years old	95.0 (2003)	98.8 (2010)	100.0
Ratio of girls and boys			
Primary education	101.6 (1990)	89.9 (2014)	100.0
Secondary education	98.8 (1990)	101.9 (2014)	100.0
Participation rate (%)SY 2014-2015			
Elementary	92.3	93.9	98.5
Male		93.4	
Female		94.3	
Secondary	49.5	62.7	60.1
Male		56.8	
Female		69.1	
Completion rate (%)			
Elementary	67.4	85.2	72.9
Male		82.3	
Female		88.3	
Secondary	67.9	76.2	73.4
Male		70.5	
Female		82.0	
Retention rate (%)			
Elementary	91.9	96.8	99.4
Male		96.3	
Female		97.5	
Secondary	89.1	91.9	96.4
Male		89.6	
Female		94.2	
Achievement score (%)	66.3	67.9	80.6
Teacher:pupil ratio	1:41	1:30	1:35
Classroom:pupil ratio	1:36	1:24	1:35
Student:chair	1:1.19	1:1.97	1:1

Sources: PSA, DepEd

Limited employment opportunities force Filipinos to migrate by necessity and not by choice. The high underemployment rate also indicates the lack of higher paying jobs that promotes migration to other regions and countries. Based on the 2015 Survey on OFs of the PSA, Bicol region accounts for 3.1 percent (around 75,800) of the estimated 2.447 million OFs. There were more females (3.3%) than male OFs (2.9%),

which imply the need to ensure the protection of migrant workers' rights and for appropriate interventions for families left behind. Programs on migration and development have been initiated to address the problems on high cost of migration, lack of information, low savings and investment rate, and undermining institutional support, so that the benefits of migration are maximized for regional development.

Strategic Framework

Accelerating human capital development will contribute to reducing inequality or “*Pagbabago*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been achieved: (a) health and nutrition for all improved; (b) lifelong

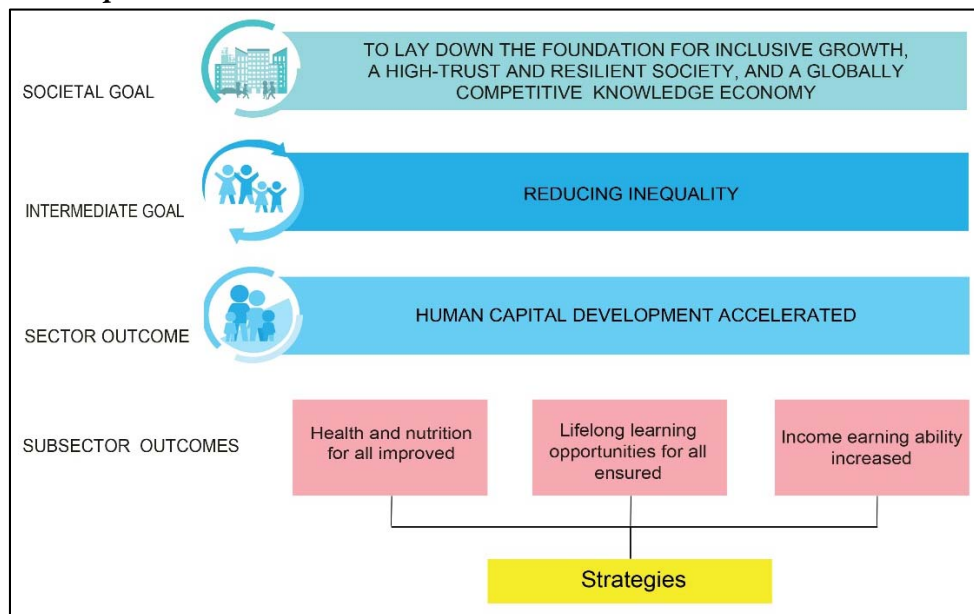
learning opportunities for all ensured; and (c) income earning abilities increased. The culture of volunteerism shall be encouraged from the academe, private and non-government sector, international volunteer organizations, and the government. Figure 10.1 presents the Strategic Framework to Accelerate Human Capital Development.

Targets

The Bicol RDP 2017-2022 targets to (a) increase life expectancy at birth from 69 years for male and 74 years for female; (b) reduce the prevalence of stunting among children < 5 from 40 percent in 2015 to 31 percent in 2022; (c) reduce the prevalence of wasting among children < 5 from 8 percent in 2015 to 7 percent in 2022; (d) reduce the prevalence of wasting among children 6-10 from 11 percent

in 2015 to 7 percent in 2022; (e) reduce the prevalence of overweight adult 20 years old and above from 25 percent in 2015 to 22 percent in 2022. By 2022, the functional literacy rate, the completion rate, and the cohort survival rate are increasing; and the percentage of youth in NEET, and the duration of school-to-work transition of college graduates have decreased.

Figure 10.1 Strategic Framework to Accelerate Human Capital Development, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Health and nutrition for all improved

- **Provide care for all life stages.** Focus shall be given to the first 1000 days of the child, reproductive and sexual health, maternal, newborn, and child health, exclusive breastfeeding, adolescent health, and addressing malnutrition in all its forms. Interventions to address communicable diseases (e.g., HIV/AIDS, tuberculosis, malaria), non-communicable diseases (e.g., cancer, diabetes, heart disease and their risk factors such as obesity and smoking), and other diseases (e.g., dengue,

leptospirosis, ebola, zika) shall be undertaken. Diseases from urbanization and industrialization (e.g., injuries, substance abuse, and mental illness) shall, likewise, be addressed. Attention shall be given to pandemics and travel-related health risks, as well as health consequences arising from disaster and climate change. Information and advocacy on the importance of maternal, reproductive, and adolescent health, pre-natal care, and proper nutrition, including telemedicine¹² shall be prioritized in geographically isolated and disadvantaged areas (GIDAs) and among poor and IP groups.

- **Ensure universal access to health, nutrition, and family planning services.** This shall be done through

¹² Use of telecommunication and information technology to provide clinical health care from a distance

the establishment of functional service delivery networks that will provide a continuum of services from primary care level to specialty centers. These services shall be compliant to clinical standards, culturally sensitive, and responsive in times of emergency and disasters. Additional resources shall be provided for health facility enhancement, deployment of health human resources, vaccines, family planning commodities, medicines, and training. Health insurance coverage shall be expanded to all families and individuals, especially the poor and vulnerable groups (IPs, differently-abled persons, and elderly) in the region.

- **Review government compensation package for health human resources.**

A review of government compensation package for health human resources shall be pushed to give higher pay to those serving in IP areas and GIDAs. Financial incentives shall be provided to health professionals, including barangay nutrition scholars and population development officers to ensure continuous nutrition and reproductive health service delivery and advocacy at the lowest levels. The health profession shall focus on primary and preventive health care and will include gender and culture perspectives as part of pre-service and in-service trainings and orientation.

- **Strengthen collection on health and nutrition data.** All health facilities and drug outlets shall use electronic clinical and administrative records as

requirement for licensing and contracting. Collection and reporting of nutrition and health data at the provincial, city, and municipal levels shall be strengthened to ensure responsiveness of interventions at the LGU level and improve accountability. Improving the timeliness and quality of data, with sufficient disaggregation, shall be pursued along with strengthening the monitoring and evaluation systems for improved decision-making.

- **Enforce standards, accountability, and transparency.**

The National Objectives for Health shall be published, along with prices of common drugs and services and list of non-compliant or erring providers. Procurement mechanisms and other major business processes shall be automated, including the establishment of a redress mechanism to improve transparency and accountability. (*Refer to Chapter 5*)

- **Elicit multi-sector and multi-stakeholder participation.**

Multi-sector and multi-stakeholder participation shall be elicited to support health and nutrition initiatives. Academic institutions, DOH-retained hospitals, CSOs and NGOs in the region shall be engaged in the conduct of capacity building activities on responsible parenthood and reproductive health, maternal, neonatal and child health and nutrition. As frontliners in health service delivery, LCEs shall be encouraged to enroll in the Health Leadership Governance Program.

The R&D on health, nutrition, and family planning shall be promoted. Collaboration among LGUs, agencies, and NGOs shall be pursued in the implementation of safe and sustainable water supply and sanitation projects, as well as treatment and rehabilitation facilities for surrendering drug users.

Subsector Outcome 2: Lifelong learning opportunities for all ensured

To ensure lifelong learning opportunities for all, quality, accessible, relevant, and liberating basic education shall be provided for all and quality of higher and technical education and research for equity and global competitiveness shall be improved.

Basic Education

- **Strengthen implementation of early childhood care and development programs.** This shall include a developmentally-appropriate curriculum and be undertaken by a competent workforce in accordance with RA. No. 10410 or “The Early Years Act” of 2013. The full implementation of the K to 12 entails the hiring of competent teachers and timely delivery of adequate education inputs such as school infrastructure, quality learning materials, equipment for both formal and non-formal education.
- **Establish mechanisms for mapping, profiling, and tracking of learners and school age children.** These mechanisms shall be put in place to

ensure that learners with special needs, IPs, out-of-school children, youth and adults are provided with appropriate education interventions, alternative delivery mode in formal education, and alternative learning systems. The provision of education inputs shall focus on areas with poor education performance, hard-to-reach learners, and vulnerable groups (e.g., street children, child laborers, IPs, differently-abled persons, children-in-conflict with the law, and children in conflict areas). To keep children in school, interventions shall include school-based feeding programs, counseling programs, remedial classes, and proactive monitoring of school children through home visits by school personnel.

- **Sustain curricular reforms.** Curricular reforms shall be sustained to make it more gender-responsive and relevant to learners and community through contextualization and localization. Likewise, reforms shall be towards improving competencies in mathematics, science and technology, ICT, innovation and creativity. Emphasis shall also be given to values, culture and the arts, drug abuse prevention, reproductive health, population and development, gender, environmental awareness, disaster preparedness, and climate change adaptation. Enhancing teacher competencies shall entail a responsive pre-service education curriculum, mentoring, workshops, organized training, e-Learning, and learning visits.

- **Strengthen collaboration with agencies, LGUs, and industries for the on-the-job-training (OJT) opportunities of senior high school students pursuing technical and vocational track.** The concerned agencies like DepEd and TESDA shall collaborate with LGUs and local establishments to address the lack of local industries for OJT of senior high school students. Proposed arrangements include: (a) private establishments to provide financial assistance to senior high school on-the-job trainees; (b) DepEd and TESDA to link with local industry establishments on crafting technical-vocational-livelihood training programs, and (c) LGUs to issue ordinances requiring private establishments to source manpower needs from local residents or senior high school on-the-job trainees.
- **Provide additional resources (manpower, facilities, funding) and scholarship grants.** Additional resources (manpower, facilities, funding) and scholarship grants shall be provided to expand access to Technical-Vocational Education and Training (TVET) programs, especially to the poor. Linkages with government technical-vocational schools and SUCs offering TVET programs shall be strengthened to accommodate more beneficiaries from the poor households in the region. Promotional activities shall be sustained to encourage more youth to take up technical and vocational education. These include the conduct of annual provincial and regional search for successful self and wage employed TESDA graduates and regular features in the TESDA website and newsletter, as well as in television and radio programs. For TVET graduates who wish to pursue higher education degree, a smooth transition shall be pursued in coordination with Commission on Higher Education (CHED).

Technical-Vocational Education and Training

- **Expand access to community-based training programs.** Access to community-based training programs shall be expanded, particularly to informal workers and marginalized groups (IPs, differently-abled persons, farmers, fishers, drug dependents, rebel returnees, women victims of abuse and human trafficking, and returning or repatriated OFs). Specific skills requirements of barangays shall be identified through continuous consultations and a community-driven approach to training delivery shall be adopted.
- **Continue capability building programs.** To improve the quality of TVET programs, the immersion of faculty in industry shall be pursued, along with continuous capability building programs. Through regular consultations and dialogue, industry leaders shall be tapped to take part in the development of training regulations and programs. To encourage innovation, the conduct of technical researches by technical vocational institutions shall be

promoted by tapping funding support from TESDA central office. To ensure global competitiveness of TVET programs, the region shall support the international alignment of Philippine TVET qualifications and strengthening the Philippine Qualifications Framework.

Higher Education and Research

- **Expand access to higher education.** Access to higher education shall be expanded through the full implementation of RA No. 10687 or the Unified Financial Assistance System for Tertiary Education Act of 2015 intended for working students and/or school leavers, along with rationalization of tuition and school fees. Higher education curricular reforms shall be steered towards developing 21st century competencies, such as civic literacy, global awareness and cross-cultural skills, gender sensitivity, critical and inventive thinking, communication, collaboration and information skills, risk-taking and entrepreneurial skills, and resiliency. The development of courses and curricula for creative arts and culture shall be promoted.
- **Steer career interest towards science, technology, engineering, agri-fisheries and mathematics.** Higher education services shall steer career interest towards science, technology, engineering, agri-fisheries and mathematics which are the building blocks of a knowledge economy. The CHED Memorandum No. 46, s. 2012 or the “Policy Standard to Enhance Quality Assurance in Philippine

Higher Education through an Outcomes-based and Typology-based Quality Assurance” shall be fully implemented, along with the Philippine Qualifications Framework and the ASEAN Qualifications Framework.

- **Increase investments in higher education.** Investments in higher education shall be directed towards (a) improving research capabilities of faculty, research staff, and students; (b) building infrastructure that will promote knowledge production and innovation, such as laboratories, libraries, business incubators, research boards, among others; and (c) linking research to extension services to community, business, and industry stakeholders. Regular academe-industry collaboration shall be pursued by allowing industry players to recommend and finance training programs.

Subsector Outcome 3: Income earning ability increased

- **Ensure the employability of the labor force, increase productivity of workers, and enhance labor mobility and income security.** To increase income-earning ability, strategies to ensure the employability of those entering the labor force, increase productivity of workers, and enhance labor mobility and income security shall be pursued. Before or even during employment, prospective workers shall be provided access to skills enhancement programs. Youth who are not in (a) education, (b)

employment, and (c) training shall be provided with opportunities for skills development and re-tooling. Prospective and current OFs shall be assisted in identifying demand and upgrading their skills to meet the demand. LGUs, through the public employment service offices (PESO), shall be capacitated to respond to the needs of the senior high school students and the differently-abled persons. Labor market information, whether online or not, shall be enhanced to make it accessible to all groups, regardless of sex, age, and culture, especially in the communities. Programs, activities, and projects that provide livelihood opportunities for women and encourage them to participate in the labor market shall be promoted.

- **Monitor compliance to labor standards.** To increase productivity of those already employed, mandatory minimum wages shall continue to be

set and monitoring of its compliance shall be strengthened. The formulation of productivity-based incentive schemes shall be encouraged among enterprises and their workers. Sound, gender-responsive occupational safety and health practices shall be ensured through enforcement of regulations and advocacy. Implementation of enhanced workplace emergency plans and DRR programs shall be encouraged.

- **Enhance community-based emergency employment program.** For workers transitioning from one job to another, the community-based emergency employment program shall be enhanced to include income opportunities for seasonal workers or those whose livelihoods are affected by natural calamities. Social protection and income security through an unemployment benefit system shall be pushed.

11 Reducing Vulnerabilities of Individuals and Family

Reducing Vulnerability of Individuals and Families

People face various risks that make them vulnerable to hardships and temporary setbacks or prolonged crises. Risk factors include inherent vulnerability, economic risks, natural hazards and human-induced shocks, and governance or political risks. Under the pillar “*Pagbabago*”, the RDP aims to enable individuals and families to deal and cope with risks by increasing their adaptive capacities.

Assessment and Challenges

Inherent vulnerability. Certain individuals and groups have inherent vulnerabilities. These are the poor, children, women, differently-abled persons, IPs, OFs, and their families, and older persons.

The official poverty estimates released by the PSA showed a decrease in the proportion of poor families in the region from 32.3 percent in 2012 to 27.5 percent in 2015. This is translated to a decrease of about 29,009 poor families from 375,974 in 2012 to 346,965 in 2015. Likewise, results of the *Listahanan* 2015 showed that the number of identified poor households decreased from 461,242 in 2010 to 369,395 households in 2015 among the 1,074,005 households assessed in the Bicol region.

In terms of the proportion and number of poor individuals in the region, the PSA estimates that in 2015, 36 percent or about

2,172,415 individuals are poor, making Bicol the region with the second highest number of poor population. Another concern is food poverty or subsistence incidence, which is the proportion of families or individuals with incomes below the minimum amount to satisfy the nutritional requirements to remain socially and economically productive. About 103,860 families (8%) or 714,681 individuals (12%) are in extreme poverty.

As shown in Table 11.1, the results indicators of the RDP 2011-2016 improved from 2012 to 2015. The expanded coverage of the 4Ps, the flagship program of the government on social welfare and protection, contributed largely to increase the access to adequate and quality education and health services, especially by the poor. From 305,988 households in 2011, the number of beneficiaries increased by 21 percent to 369,186 households in 2015.

Table 11.1 Bicol RDP 2011-2016 Results Matrix Indicators (Social Welfare and Protection)

INDICATORS	2012	2015	TARGET
No. of households covered by social welfare and protection services increased	308,493	369,186	390,000
No. of senior citizens covered by social pension increased	16,110	56,440	64,817

Source: DSWD

Children. Based on Republic Act 9523, an act *requiring* DSWD certification to declare a child legally for adoption, 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.” The 2011 Survey on Children of the PSA estimated that 23 percent (around 472,500) of children 5-17 years old in the region were working. This was higher than the national average of 19 percent. The same survey estimated that Bicol Region has 304,000 children in hazardous labor, the second highest in the country. Based on the 2015 *Listahanan*, there were around 1.3 million children who were poor. Poverty forces families to stop sending their children to school so they can help augment the family income.

The 4Ps program resulted to more children staying in school as indicated by increased participation and completion rates in basic education (*Refer to Chapter 10*). To address child labor, the family development sessions under the 4Ps included teaching parents about the rights of children. Other interventions were also implemented, such as profiling of child laborers, advocacy for child labor-free barangays and establishments, and

providing livelihood assistance to parents of child laborers.

Older persons. Older persons are vulnerable because they are physically more fragile and have limited income sources. Although there was a significant increase in the number of senior citizens provided with social pension, many senior citizens are yet to be covered. The implementation of the Senior Citizens’ Law resulted to more than 56,000 senior citizens covered by social pension in 2015, which increased by 250 percent from 16,110 in 2012 (Table 11.1). Delays in the pay-out in the past years were promptly addressed. The improved provision of services to the senior citizens contributed to a higher life expectancy at birth from 66 and 71 in 2011 to 69 and 74 in 2015 for male and female, respectively (*Refer to Chapter 10*). Based on the 2015 *Listahanan* assessment, a total of 87,928 poor senior citizens must be provided with social pension.

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. Moreover, societal norms impose additional risks as

there is unequal power relationship between women and men. Based on the 2015 *Listahanan*, there were more than 454 thousand women who were poor.

There were about 168 maternal deaths per 100,000 livebirths in 2015 due to delay in seeking professional help, delay in going to health facilities, and delay in receiving care in health facilities. Likewise, access to reproductive health services was inadequate, as indicated by the unmet need for family planning and low contraceptive prevalence rate. The incidence of teenage pregnancies was rising, thereby preventing more teenage women from finishing school and achieving their full potential.

Differently-abled persons. Many differently-abled persons become vulnerable to physical and psychological violence because of their disability. Disadvantages include lack of: (a) data on differently-abled persons; (b) physical accessibility in schools, 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 differently-abled persons. A study by the Philippine Institute for Development Studies (PIDS) shows that among differently-abled persons in the country, more women are unable to complete any grade in school, and the disparity is wider in the rural areas¹².

Based on the 2015 *Listahanan*, there were more than 29 thousand poor PWDs in the region.

Indigenous Peoples (IPs). According to the NCIP, there are about 50,000 IPs in the region who belong to different ethnic groups, i.e., *Agta*, *Agta-Tabangnon*, *Agta-Cimarron*, *Kabihug*, and *Dumagat*. The IPs are among the disadvantaged sectors identified under RA 8425 or the Social Reform and Poverty Alleviation Act because of their vulnerability to exploitation and discrimination. Extractive activities (i.e., mining and logging), “development work” (e.g., hydroelectric dams), in-migration, territorial control mechanisms (e.g., expropriation of land, imposition of territorial boundaries, and other such policies), among others, lead to displacement and place great pressure on the preservation of their resources and way of life. Based on the 2015 *Listahanan*, there were 7,896 poor households belonging to IP groups. However, only 1,714 IP household beneficiaries were registered under the 4Ps in 2015, which was only 22 percent of the total identified poor IP households.

Social protection services were provided to the above vulnerable groups, but these remain inadequate. Table 11.2 provides the number of poor individuals belonging to basic sectors who must be provided with social welfare and protection services, excluding about 173 thousand poor households with members who have experienced displacement.

¹² 2011 PIDS study “Gender and Disability: The Case of the Philippines”

Table 11.2 Number of Poor Individuals by Basic Sector, Bicol Region

BASIC SECTOR	NO. OF POOR INDIVIDUALS
Women (18-59 years)	454,740
Urban Poor	380,149
Farm workers, foresters, fisherfolks (15 years and above)	215,932
Youth (15-30 years)	586,137
Children (<18 years)	1,294,840
Senior Citizens (60 years and above)	87,928
With disability	29,346
With no reported occupation (15 years and above)	624,227

Source: 2015 Listahanan Assessment

Health insurance. Unexpected medical expenses provide additional burden, especially to the poor and marginalized groups. As of November 2015, the Philhealth has covered a total of 5,444,624 members and its qualified dependents. This means that 93 percent of the Bicol's population were protected against the financial risk of being hospitalized, an increase from 80 percent in 2011, but still short of the 100 percent Bicol RDP 2011-2016 target (*Refer to Chapter 10*). As of June 2016, however, Philhealth coverage was only 89 percent due to increase in population, incomplete database of dependents, and exclusion of IPs.

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. The high underemployment rate in the region,

pegged at 25.4 percent in July 2016, indicates the lack of higher paying jobs that promotes migration to other regions and countries. Based on the 2015 Survey on OFs of the PSA, Bicol region accounts for 3 percent (around 75,800) of the estimated 2.447 million overseas Filipinos. There were more females (3.3%) than male overseas Filipinos (2.9%). Overseas Filipino workers (OFWs) are vulnerable to abuses and violations of migrant workers' rights. Moreover, families of OFWs who are left behind are also prone to relationship problems and erosion of values.

Social protection programs for OFWs cover disability, death and burial benefits, education, livelihood, and relief assistance. The RA 10022 or the Migrants Workers and Overseas Filipino Act mandates the provision of compulsory insurance to OFs. However, this insurance excludes direct hires and is effective only during their stay in destination countries. Likewise, there are reintegration programs and services to address the needs of repatriated workers and cushion the impact of unemployment.

Female Workers. Based on the 2011 PIDS study “Gender and Disability: The Case of the Philippines”, the Philippines has the second highest percentage of entrepreneurially active females next to Peru (based on data from the Department of Trade and Industry), but the vast majority of enterprises owned by Filipino women are small and informal. Most of these enterprises are also engaged in low value-added activities like retail trade, food stalls, and personal services. Women in the informal economy and those operating micro and small enterprises usually have limited access to financial services, production networks, marketing information, and global value chains. These limit their socioeconomic advancement and full participation in the development process.

Women with disability are also left out in terms of employment. While 58 percent of the men with disability were employed (fully employed and underemployed), only 36 percent of the women with disability were employed. These refer to those with an income-generating job or business or those who work but without pay in the farm or business that is operated by a member of his/her household. The fully employed did not express desire to have additional hours of work. The underemployed were those who were employed but still expressed the desire to have additional hours of work. While 26 percent of the women were unemployed, only 10 percent of the men were unemployed. Moreover, the proportion of females who were not in the

labor force is higher than that of the males, which means more females with disability were not looking for work.

Natural and human-induced hazards.

Disasters are some of the leading causes of damage to property and even deaths. The Bicol RDP 2011-2016 target to achieve zero casualties during disaster events was partially attained. Based on the data from the Office of Civil Defense (OCD) Region 5, reduction to casualties, in terms of death, was noted from 83 individuals in 2011 to 20 individuals in 2015. To attain the plan target, various interventions were conducted in the region focusing on prevention and mitigation, preparedness, response, and rehabilitation and recovery. However, despite the concerted efforts of the national agencies, LGUs and CSOs to reduce disaster risk, addressing the region’s vulnerabilities remains to be a challenge. This resulted to damage of properties, livelihood and even loss of lives. For typhoon Nina alone, data from the OCD showed that approximately 513,352 families or about 2.27 million individuals were displaced and evacuated, while casualties reached 340 (14 dead and 326 injured). (*Refer to Chapter 20*)

Governance and political risks. These 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.

Strategic Framework

Reducing vulnerability of individuals and families will contribute to reducing inequality or “*Pagbabago*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy.

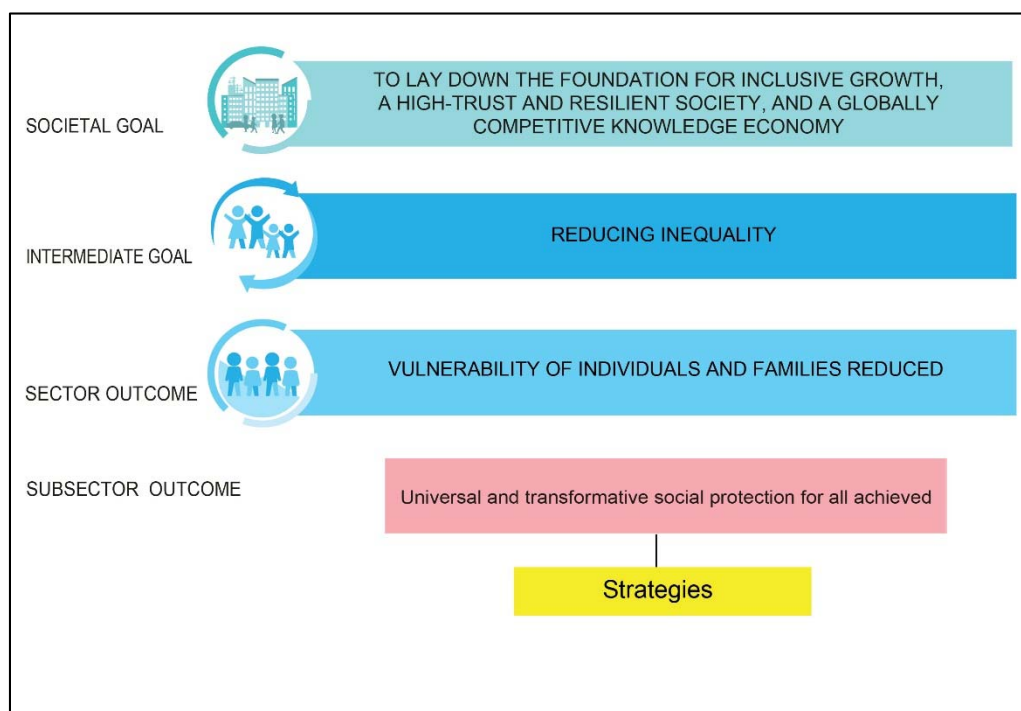
By 2022, the subsector outcome of a universal and transformative social protection for all should have been achieved. Figure 11.1 presents the Strategic Framework to Reduce Vulnerability of Individuals and Families.

Targets

The Bicol RDP 2017-2022 targets to increase the percentage of population covered by PhilHealth insurance from 93% in 2015 to 100% in 2022, proportion of senior citizens covered by social pension (100%). It targets to reduce the

proportion of children aged 5-17 years engaged in child labor by sex and age (30% reduction from latest data. By 2022, there is zero number of deaths and casualties due to disaster.

Figure 11.1 Strategic Framework to Reduce Vulnerability of Individuals and Families, 2017-2022



Strategies

The following strategies will help achieve the subsector outcome to address the challenges presented above:

- **Adopt a convergence approach to help the poor and vulnerable become self-sufficient and self-reliant.** In providing social protection to mitigate risks faced by vulnerable individuals and groups, a convergence approach shall be adopted to help the poor and vulnerable become self-sufficient and self-reliant. The 4Ps shall be expanded to include more poor families and marginalized groups (differently-abled persons, IPs, farmers, fisherfolks, *etc.*). In selecting target beneficiaries of these social protection programs, the DSWD's *Listahanan* database shall be adopted. This is to ensure more focused and sustainable delivery of services to the poor and avoid duplication of interventions. To address health concerns, the Indigent Program of the NHIP shall be expanded and shall continue to cover the households identified in the *Listahanan*. These households shall also be linked with social enterprises to capacitate them to engage in livelihood opportunities.
- **Implement a multi-sectoral roadmap for children.** To address the concerns of children, a multi-sectoral roadmap shall be implemented with the aim of building an enabling environment that respects, protects, and fulfills the rights of all children. This will include mechanisms to reduce cases of child

labor and monitor the implementation of relevant policies. Maternity and paternity leave benefits shall be increased and harmonized in the public and private sectors to ensure equal access to employment and security of tenure. Increase in paternity leave benefits from the current seven to 14 days shall be pursued. Work opportunities shall be provided to poor students so they can continue education, as well as to parents of child laborers and children-at-risk.

- **Enhance implementation of disability-related policies and programs.** To ensure a disability-inclusive society, initiatives shall include enhancing stakeholders' understanding of disability (i.e., impairments and barriers to development) and stricter implementation of disability-related policies and programs. Strategies to expand employment opportunities and enhance the quality of employment among differently-abled persons shall also be adopted. 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 shall reinforce the implementation of laws providing incentives and recognition to employers with staff for differently-abled persons.

▪ **Intensify social protection programs for OFs and their families.**

Social security benefits shall be included in the standard employment contract for all types of OFWs. The government shall establish additional SSS, Pag-IBIG, and PhilHealth representative offices overseas, along with massive information dissemination. To address vulnerabilities caused by global developments, social safety nets shall be extended and complemented by reintegration programs, skills upgrading, and skills matching with domestic opportunities. The organization of OFW family circles and similar groups shall be encouraged to assure a support system for the family left behind and help OFWs navigate through the different phases of their overseas employment, including their reintegration upon their return to the country.

▪ **Improve social pension for senior citizens.**

Social pension for senior citizens shall be improved by reviewing the Senior Citizen Law to tackle necessary adjustments and redefine the inclusion criteria to improve coverage. The creation of a Council for the Welfare of Older Persons shall be pursued to address the need for a government body that will coordinate the formulation, implementation, and monitoring and evaluation of policies, plans, and programs for senior citizens.

▪ **Expand PhilHealth packages.**

In support of a universal health insurance, PhilHealth packages shall be expanded through the different health

financial programs of government agencies. The target is to increase benefit utilization and adjust case rates to ensure full coverage of cost and care.

To manage economic risks, an unemployment insurance shall be established to 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. For workers in the informal sector, benefits and social protection services shall be expanded to safeguard them, facilitate their transition to the formal economy, and ensure enrolment in the social security system. For OFWs and their families, reintegration programs shall be continued, including counselling and onsite support.

To deal with hazards, communities shall be assisted in undertaking DRR-CCA strategies. As a risk transfer mechanism, the People Survival Fund shall provide technical and financial assistance to enable local communities to implement adaptation measures. National government and LGUs shall collaborate in providing adequate transition houses and livelihood opportunities to disaster survivors during the early rehabilitation and recovery period. Establishment of women and child-friendly spaces shall be promoted to protect the welfare of women, children, and IPs. Protocols for emergency cash transfers, calamity loans, and livelihood programs shall be established in areas most likely to be

affected by disasters. Disaster response shall include economic, material and physical needs, and psychosocial and mental concerns. (*Refer to Chapter 20*)

To address governance and political risks, the Council for the Welfare of Children shall establish a monitoring system at the national, regional, provincial, municipal and city levels to record and track incidents and respond to all cases of grave child rights violations. A process shall be established to address statelessness of

individuals. Likewise, a protocol shall be developed to identify the adverse impact of policies, programs and projects and design the necessary measures to mitigate such impact. (*Refer to Chapter 6*)

To achieve universal social protection, social protection shall be mainstreamed in local development planning processes. It will entail the conduct of social protection fora and formulation of a social protection statistical framework to track vulnerable sectors.

12

Building Safe and
Secure Communities

Chapter 12

Building Safe and Secure Communities

The government recognizes the importance of building and expanding people's access to safe and secure shelter in well-planned communities. Based on the results of a national survey for *AmBisyon Natin 2040*, housing is one of the aspirations of most Filipinos.

Assessment and Challenges

Data from the Housing and Urban Development Coordinating Council (HUDCC) showed increased number of families allocated with socialized housing (Table 12.1). This was largely due to the implementation of resettlement projects, community mortgage program, housing

projects for uniformed personnel, settlements upgrading, and housing materials assistance to victims of disasters and calamities. From 2011 to 2015, a total of 21,772 families were provided with socialized housing.

Table 12.1 Bicol RDP 2011-2016 Results Matrix Indicators (Housing Sector)

INDICATOR	2010	2015	TARGET
No. of families allocated with socialized housing	722	21,772 (2011-2015)	10,512
No. of families provided with end user financing	1,554	858	7,324
No. of families provided with security of tenure	1,031	2,593 (2014)	2,887

Sources: HUDCC, NHA, Pag-IBIG

The resettlement projects are composed of those administered by the National Housing Authority (NHA) and resettlement projects of LGUs that received assistance from NHA under the Resettlement Assistance Program for LGUs (RAP-LGU). From 2010 to 2016, a total of 29 resettlement sites were developed in 19 municipalities and three cities of the region. Among the problems that impede the implementation of resettlement projects is the ownership of

land. The COA requires land titles before housing units can be built. This causes delay as most LGUs only have tax declarations. Another problem is that most families are not willing to be resettled as they are removed from their source of livelihood.

Under the Community Mortgage Program (CMP) that is implemented by the Social Housing Finance Corporation, eight projects with a total value of Php42.1

million benefited 930 families. The factors that affected the sustained implementation of the CMP are the focus on land acquisition and tenure regularization excluding improvement of services on housing, low collection rates on the amortization payments, and the lack of CMP mobilizers.

The NHA also implements the Armed Forces of the Philippines (AFP) and PNP Housing Project for military and police personnel and the Housing Materials Assistance (HOMA) Program for disaster survivors. The AFP-PNP Housing covers not only personnel from the AFP and the PNP but also the Bureau of Fire Protection (BFP) and the BJMP. Isarog Village in Pili, Camarines Sur is the site of the housing program for uniformed personnel in the region. As of 2015, a total of 1,325 housing units for uniformed personnel were completed. The HOMA program benefited a total of 11,480 families who were affected by various calamities.

Settlements upgrading is intended to address the security of tenure and infrastructure requirements of informal settlements on government land proclaimed or designated as socialized housing sites. For the plan period, a total of 695 families benefited from the settlements upgrading implemented by NHA. Under the core shelter assistance program of the DSWD, a total of 16,615 core shelter units were completed, despite the lack of counterpart funds from some LGUs. Although the target for the number of families provided with end-user financing was not achieved, housing loans were made more available for Pag-IBIG members. Pag-IBIG released a total of PhP3.2 billion for the construction of 5,462 housing units.

Despite the accomplishments of the key shelter agencies in the region for the period 2011 to 2016, a huge housing backlog and additional housing needs remain due to population growth (Tables 12.2 and 12.3).

Table 12.2 Key Shelter Agency Accomplishments and Targets, 2011-2016

PROGRAM/COMPONENT	ACCOMPLISHMENTS	TARGETS
Resettlement	6,934	12,927
NHA-Administered	1,333	3,382
RAP-LGU	3,989	9,015
Calamity Fund	394	394
B-Care	1,218	136
Community Mortgage Program	930	1,035
Direct Housing Provision	19,370	23,013
Regular Mortgages	5,462	7,484
Community-Based Housing Program	273	0
Local Housing Program	135	174
Housing Materials Assistance	11,480	11,882
AFP/PNP Housing Program	1,325	2,425
Settlements Upgrading	695	1,048
Indirect Housing Provision	358	585
Asset Disposition	358	585

Source: HUDCC

Based on the 2015 *Listahanan* assessment, there were 242,844 poor households who lived in housing units with roofs made of

light or salvaged materials; 260,401 lived in housing units with walls made of light or salvaged materials; and 123,238 without electricity.

Table 12.3 Housing Need, Bicol Region, 2011-2016

PROVINCE	HOUSING BACKLOG	HOUSING NEEDS DUE TO POPULATION GROWTH	TOTAL HOUSING NEED
Albay	51,304	20,441	71,745
Camarines Sur	59,936	36,087	96,023
Camarines Norte	13,074	11,726	24,800
Catanduanes	13,775	3,862	17,637
Masbate	37,769	16,150	53,919
Sorsogon	46,537	12,749	59,286
Total			323,409

Source: HUDCC

More efforts are needed to speed up the regularization of tenure of the informal settler families in Pili, Camarines Sur covered by Proclamation No. 593 and in Albay under Proclamation No. 40. No certificate of land allocation (CELA) has been awarded to the target families of Proclamation No. 593. There is an ongoing census and tagging of potential beneficiaries in barangays San Jose and Caroyroyan in Pili, Camarines Sur that would benefit 350 families. From 2003 to 2014, about 58 percent of 5,850 beneficiary families received CELA under Proclamation No. 40. In 2015, survey of lots was conducted in the unutilized property of the PNR in Sogod, Bacacay, Albay that would generate an estimated 400 lots. A major factor that affects the regularization of tenure of informal settler families is the slow processing of contracts with the PNR.

Among the problems that hinder the provision of housing is that government takes the burden and risks for the housing

needs without involving the private sector. The Urban Development and Housing Act (UDHA) of 1992 stipulates that condominium developments must allocate at least five percent of the total project cost for socialized housing, while subdivision developments are required to allot 20 percent. Those failing to meet the obligation face a penalty of Php10 million for the first offense, and have their business license removed following a second violation. The Chamber of Real Estate and Builders' Association (CREBA) claimed that the quota for subdivisions is not realistic. The CREBA advocated that it should be at most five percent of the net saleable residential area instead of 20 percent of the total project area or cost.

The UDHA also mandated government, in collaboration with the private sector, to provide affordable and decent housing to the underprivileged and homeless citizens in urban and resettlement areas, including basic services and employment opportunities. Specifically, city and

municipal governments are tasked to conduct an inventory of lands and identify sites for socialized housing in coordination with the concerned agencies. As of 2016, not all LGUs have socialized housing sites for their underprivileged and homeless constituents. To expedite the identification of lands for housing, HUDCC trained 66 LGUs on the formulation of local housing plans.

Another challenge is the limited land identified suitable for housing. The recently enacted Idle Government-Owned Lands Disposition Act requires that any government-owned land that has not been used for its originally licensed purpose within a 10-year period be provisioned to the NHA, which together with LGUs, shall build socialized housing in partnership with private developers.

Strategic Framework

Building safe and secure communities will contribute to reducing inequality or “*Pagbabago*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the subsector outcome of access to

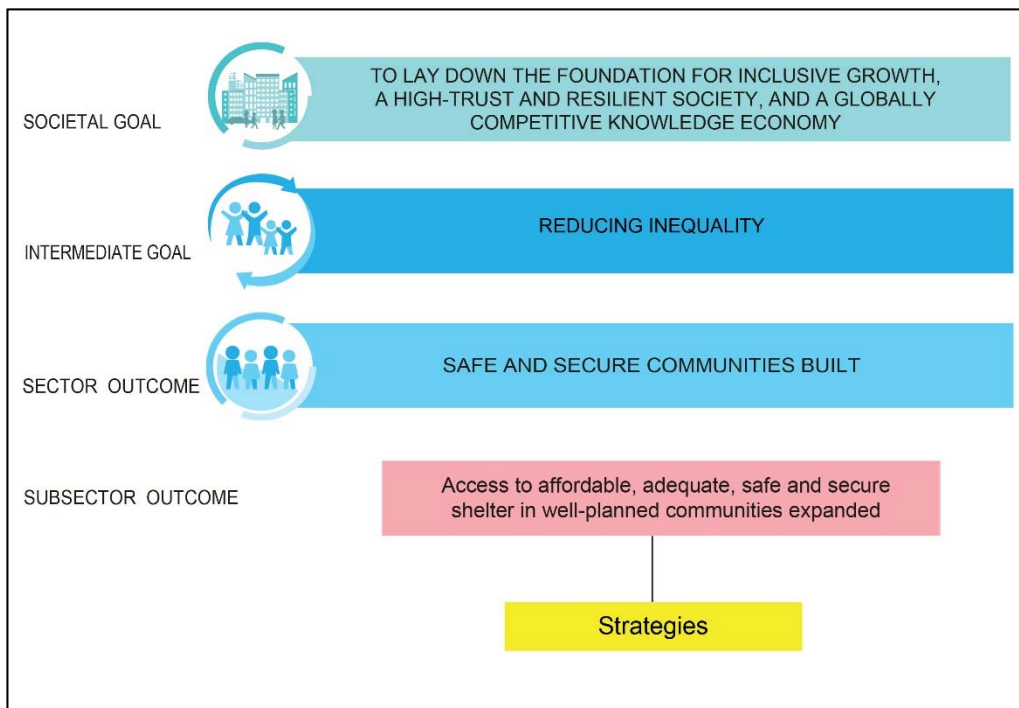
affordable, adequate, safe, and secure shelter in well-planned communities expanded, should have been achieved. Figure 12.1 presents the Strategic Framework to Build Safe and Secure Communities.

Targets

The Bicol RDP 2017-2022 targets to increase the number of households

provided with direct and indirect housing assistance.

Figure 12.1 Strategic Framework to Build Safe and Secure Communities, 2017-2022



Strategies

The following strategies will help achieve the subsector outcome to address the challenges presented above:

Subsector Outcome: Access to affordable, adequate, safe and secure shelter in well-planned communities expanded

- **Develop integrated neighborhoods and sustainable communities particularly for low-income households.** The Bicol RSDF that is anchored on the NSS shall be implemented to address the challenges of agglomeration economies, connectivity, and vulnerability. Under the Bicol RSDF, the growth and

development of urban centers and human settlements shall 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 informal settler families are adequately satisfied. The physical infrastructure of housing and location of human settlements must ensure compliance with DRR-CCA requirements to mitigate risks and address vulnerability. (Refer to Chapter 3)

- **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 or mixed-use housing development, housing microfinance initiatives, incremental housing programs, and housing cooperatives shall be explored to make housing more affordable.

- **Strengthen decentralization of housing and urban development interventions.** As prescribed under the Local Government Code of 1991, 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 shall be reinforced, especially on local shelter planning, CLUPs with a ridge-to-reef approach, land acquisition and development, curbing proliferation of informal settlers, and implementation of a regional resettlement action plan.
- **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 (i.e., usufruct, long-term lease, lease variants and land banking) shall 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 areas frequently affected by disasters, the inventory of lands shall be the basis for programs to incentivize people to move out of high risk areas. The housing agencies shall propose scale up programs,

such as providing free housing materials implemented by the DSWD and LGU partners in the aftermath of calamities, to encourage people to secure financing for land acquisition in safer areas. This may be proposed as a model for delivering a Quick Response Funds of the National Disaster Risk Reduction and Rehabilitation Management Council (NDRRMC) or of its successor institution.

Inventory of lands and cadastral surveys shall 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.

- **Implement risk-sensitive housing programs and policies.** To ensure safety of the population against possible effects of disasters, strict enforcement of policy prohibiting settlements within areas with high exposure to hazards shall be adopted particularly at the local. The identification of housing and resettlement areas should be in appropriate land use, and will not encroach ECAs and conservation sites. Adoption of disaster resilient housing designs shall also be encouraged. (*Refer to Chapter 20*)
- **Strengthen partnerships with stakeholders.** The sector shall pursue multi-stakeholder partnerships to ensure that local shelter plans are linked with the National Resettlement Plan. The government shall encourage public-private partnerships for housing projects and improve the

compliance of developers to the policy of balanced housing development. The services of volunteers from the academe, corporate, non-government, and international organizations shall be harnessed 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 approach shall 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 settlements and benefits.

PART IV

INCREASING GROWTH POTENTIAL ("TULOY NA PAGUNLAD")



13 Reaching for the Demographic Dividend

Reaching for the Demographic Dividend

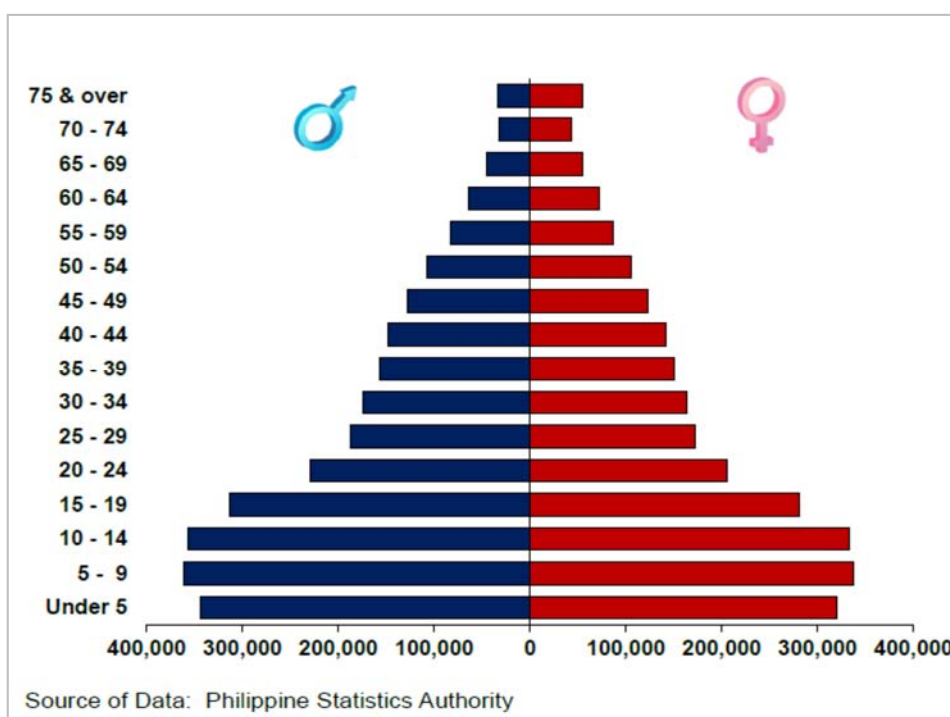
Demographic dividend is realized when birth rates decline such that the working age population increases and the dependent population decreases, thus creating a window of opportunity for government to direct resources to economic development rather than to provide for the needs of the dependent population. With a population concentrated at older working age groups, it is possible for this population to accumulate assets for investment, thus increasing national income. Such period of opportunity may last five decades or more (about two generations).

Assessment and Challenges

Bicol's population reached 5.8 million in 2015. It grew at an average of 1.3 percent annually from 2010 to 2015, which is lower than the average growth of 1.5 percent annually from 2000 to 2010. It is

basically young (Figure 13.1), with those below 19 years old comprising 49 percent of the total population in 2010 (there is no single age population yet for 2015).

Figure 13.1 Population Pyramid, Bicol Region, 2010



Bicol region's age dependency ratio has been declining from 102.4 in 1975 to 74.9 in 2010, which means that there are about 74 dependents per 100 workers. A low ratio means that those of the working age, and the overall economy face lesser burden in supporting the dependent young and aging population.

Bicol has a high unmet need for spacing and limiting children, which are higher than the national figures (Table 13.1). Unmet need for family planning refers to productive women who are not using contraception but who wish to postpone the next birth or stop childbearing altogether.

Table 13.1 Unmet Need for Spacing and Limiting, Bicol Region and Philippines: 2003-2013

UNMET NEED	PHILIPPINES				BICOL			
	2003	2008	2011	2013	2003	2008	2011	2013
Total	17.3	22.3	19.3	17.5	23.7	32.2	25.1	27.4
Spacing	7.9	9.0	10.5	6.7	10.4	10.2	11.3	7.3
Limiting	9.4	13.4	8.8	10.8	13.4	22.0	13.8	20.2

Source: PSA

The rising incidence of teenage pregnancies in the region is also a concern. In 2014, Bicol region registered 72 livebirths of young mothers below 15 years old, which more than doubled from 34 livebirths in 2011. Likewise, the region registered 12,628 livebirths of young mothers between 15-19 years old, which increased by four percent from 12,194 livebirths in 2011.

Wanted and actual fertility rates in the region are also higher than the national level (Table 13.2). Couples in the region

bear children more than their desired number. According to the 1998 National Demographic and Health Survey, rural women give birth to almost two children more than urban women. While total fertility rate in urban areas declined by 15 percent over the last five years from 3.5 to 3.0, total fertility rate among rural women barely declined from 4.8 to 4.7. Some other factors that affect fertility rate are nuptiality or union and sexual intercourse, age of menarche, contraception, socioeconomic status, gender and culture.

Table 13.2 Fertility Rates, Bicol and Philippines: 1993-2013

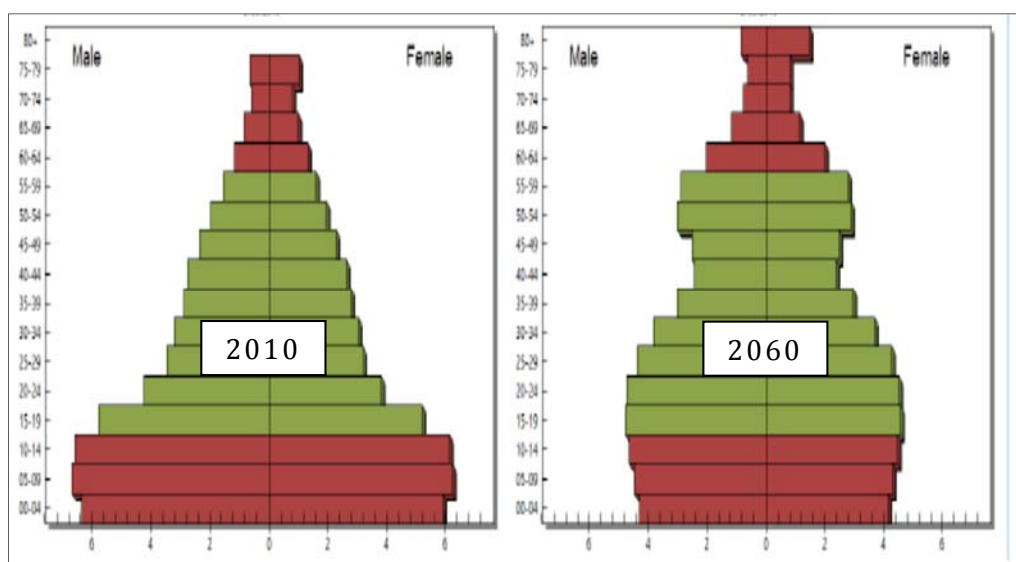
AREA	1993		2003		2008		2013	
	Wanted	Actual	Wanted	Actual	Wanted	Actual	Wanted	Actual
Phil.	2.9	4.1	2.5	3.5	2.4	3.3	2.2	3.0
Bicol	3.5	5.9	2.6	4.3	2.5	4.1	2.6	4.1

Source: PSA

Assuming that the 4.1 fertility rate of the Bicol region remains constant from 2010 to 2060, the population of the region can reach more than 12 million in 2060. However, if the fertility rate of 4.1 drops to 2.1 in 2060, the population of the

region can reach 10 million in 2060. The comparative population pyramids in 2010 and 2060 are presented in Figure 13.2, assuming that fertility rate declines to 2.1.

Figure 13.2 Projected Population Pyramids, Bicol Region: 2010 and 2060 (Assuming a 2.1 decline in fertility rate)



Demographic dividend does not result automatically when working age population increases relative to the dependent population. Appropriate

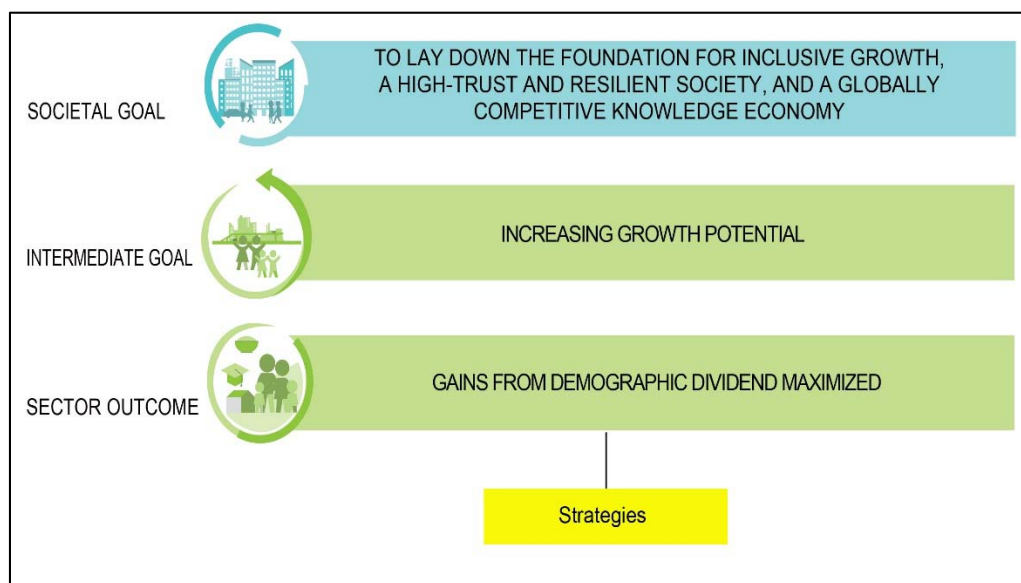
population, social, and economic policies need to be in place to reach the demographic dividend.

Strategic Framework

Maximizing gains from demographic dividends will contribute to increasing growth potential or “*Patuloy na Pag-unland*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes should have been achieved: (a) fertility

rate reduced; and (b) investments in health and education of children and youth increased to maximize the gains from the demographic window of opportunity, where the working age population comprises the bulk of the population age structure. Figure 13.3 presents the Strategic Framework to Maximize the Demographic Dividend.

Figure 13.3 Strategic Framework to Maximize the Demographic Dividend, 2017-2022



Targets

The Bicol RDP 2017-2022 targets to reduce the (a) total fertility rate from 4 percent to 2 percent, and (b) number of

live births of young mothers 15-19 years old. By 2022, there is zero unmet need for family planning.

Strategies

The following strategies will help achieve the subsector outcome to address the challenges presented above:

Subsector Outcome: Gains from demographic dividend maximized

- **Sustain lower levels of fertility.** The RPRH Law shall be fully implemented. This is to close the gap between the actual and desired number of children. Because the poor tend to have more children, provision of family planning services shall be focused on the poor households in urban communities, GIDAs, including indigenous women.

Demand-generation strategies including advocacy for increased local government counterpart resources and funding shall be intensified to ensure improved access of all Filipinos to the widest range of family planning methods. The involvement of men, civil society and private sector organizations shall be encouraged to mobilize all stakeholders in the promotion of universal access to modern family planning methods. Proper birth spacing of three to five years shall be promoted to lower fertility levels and increase the chances of women to participate in the labor force and in human resource formation activities.

To address the rising incidence of teenage pregnancy, strategies to increase the age at first birth or maternal age shall be anchored on the promotion of age-appropriate and comprehensive sexuality education among adolescents. These

strategies include integration of reproductive health education in curricular and extra-curricular modalities in schools, communities, and workplaces. Social media and other online networks shall be used for responsible sexuality education to reach out to various segments of young people.

- **Increase investments in health, nutrition, and education of children and youth.** To ensure a healthy labor force population, the government shall increase investments in health, nutrition, and education of children and youth. Children who are healthy are more likely to be attentive in school and make the most out of educational opportunities. Health programs that provide immunization and prevent and treat common infections will help children to excel in school and become better workers. Good nutrition promotes cognitive development among infants and children and sustains child health. Investments shall be increased to improve education processes and outcomes, such as building more schools and hiring of teachers. (*Refer to Chapter 10*)

- **Put in place a comprehensive and enabling social policy.** A comprehensive and enabling social policy shall be put in place to help young citizens avoid or at least recover from unfortunate circumstances, as a result of wrong choices or decisions or forced into a situation, such as early marriage or

pregnancy, leaving school, repeat pregnancies, child illness, maternal morbidity, informal work, insecurity and displacement. Examples of such policies are those against discrimination of young mothers in school and single parents in the workplace. Policies that would reduce youth unemployment and promote employment or productivity

among the older population shall also be explored.

- **The integration of population factors in all development initiatives shall be strengthened.** The use of population data shall be promoted, particularly in planning interventions in health, education, employment, infrastructure, and economic development.

14 Vigorously Advancing Science, Technology, and Innovation

Vigorously Advancing Science, Technology, and Innovation

Science, technology and innovation (STI) plays an important role in socio-economic development. Technological advancement increases productivity as new products, processes and methods, and innovation can come from R&D which are then developed, verified, commercialized and adopted. Science and technology also increasingly plays a vital role in managing disasters and climate change. It has provided effective response to disasters through timely information and early warning of potential hazards. However, over the past decades science, technology, and R&D have not received the proper attention which affected the country's competitiveness.

Under the Pillar on "*Patuloy na Pag-Unlad*" or increasing potential for growth, science, technology and innovation shall be promoted.

Assessment and Challenges

During the past plan period, the government, through the DOST, SUCs, and research consortia, implemented programs fostering technological progress and innovation. The SETUP of the DOST has been successful in assisting MSMEs to develop technological innovations to enhance productivity and competitiveness. The SETUP assisted the sector's food processing, furniture, gifts, housewares, decors, agriculture/marine/aquaculture, metals and engineering, including those in the ICT, pharmaceutical, and health products.

Another DOST program, the One Stop Laboratory Services for Global Competitiveness (OneLab), has been

operational since 2014 to provide laboratory testing services to MSMEs and other stakeholders. The Unified Laboratory Information Management System (ULIMS), the backbone for the OneLab, is serving as a portal of information for DOST's testing services and laboratories which will later integrate non-DOST laboratories of other government agencies, SUCs, and private sector.

The DOST, through the PAGASA, Philippine Institute of Volcanology and Seismology (PHIVOLCS), and the DOST-Advanced Science and Technology Institute (ASTI), provided the technology and management for DRR. A systematic forecasting and

warning system was provided by PHIVOLCS and PAGASA that helped key agencies and individuals on informed decisions that saved lives and properties. The PHIVOLCS has monitored earthquake occurrences, volcanic eruption, and tsunami detection, while PAGASA has monitored hydrological phenomena, weather and climate variability. The Nationwide Operational Assessment of Hazards (NOAH) was launched and additional rain and water level monitoring system were installed to enhance forecasting accuracy.

To develop STI, various scholarship programs were administered by DOST that have drawn the interest of many *Bicolano* graduating elementary and high school students. Science and technology events such as the Bicol Regional Invention Contests and Exhibits (BRICE) were conducted, gathering scientists, researchers, engineers, businessmen, students, NGOs, POs and other stakeholders.

The Bicol Food Innovation and Commercialization Center (BFICC) was established at the Bicol University providing the laboratory facilities for food safety and quality assurance. It serves as hub for innovations, R&D, and support services for the development of processed foods. Funded by CHED and DOST, additional equipment are needed to fully operationalize the center. Complementary food processing facilities were also established in various parts of the region providing technology transfer and commercialization of DOST-Food and Nutrition Research Institute (FNRI)

developed complementary foods for infants.

The three S&T networks or consortia: the Bicol Consortium for Agriculture, Aquatic and Natural Resources Research and Development (BCAARRD); Bicol Consortium for Health Research and Development (BCHRD); and Bicol Consortium for Industry, Energy and Emerging Technology Research and Development (BCIEERD) have remained partners in STI. They serve as catalysts in rural development through research and extension services. Research ideas and recommendations of the research consortia were converted into tools used by the communities to undertake income-generating activities. The research consortia formulated strategies in the promotion and utilization of research results and technologies in the local industries. The BCIEERD, for example, was able to facilitate technology support for food and agriculture which includes rootcrops washer, electronic feeds formulator, and noodles from sweet potato. The state universities and colleges as members of the consortia, conducted and promoted scientific and technical studies, extended appropriate knowledge, skills and technologies of practical and scientific application and implemented income generating projects that meet the needs and demand of various sectors to improve and sustain the quality of life.

The following challenges need to be addressed during the plan period:

- **The need to increase research innovation and productivity.** There

are low outputs of knowledge and technology in terms of the number of patents and intellectual property rights, and published scientific and technical journals. This may be due to inadequate number of personnel involved in R&D, and insufficient funding for infrastructure support such as laboratories, testing facilities and R&D centers. Researches from the laboratory or field need to be translated into innovative practices and matured technology and the industry adopters are encouraged to adopt technological changes.

- **The need to adopt technologies.** New technologies will help advance the MSMEs, agriculture and fishery sectors from the traditional to an expanded operation. The MSMEs, farmers and fisherfolks have to be equipped with the right tools and technology that will deliver efficiencies and cost savings for them to create globally competitive products that meet the demand and the quality

standard of the local and international market.

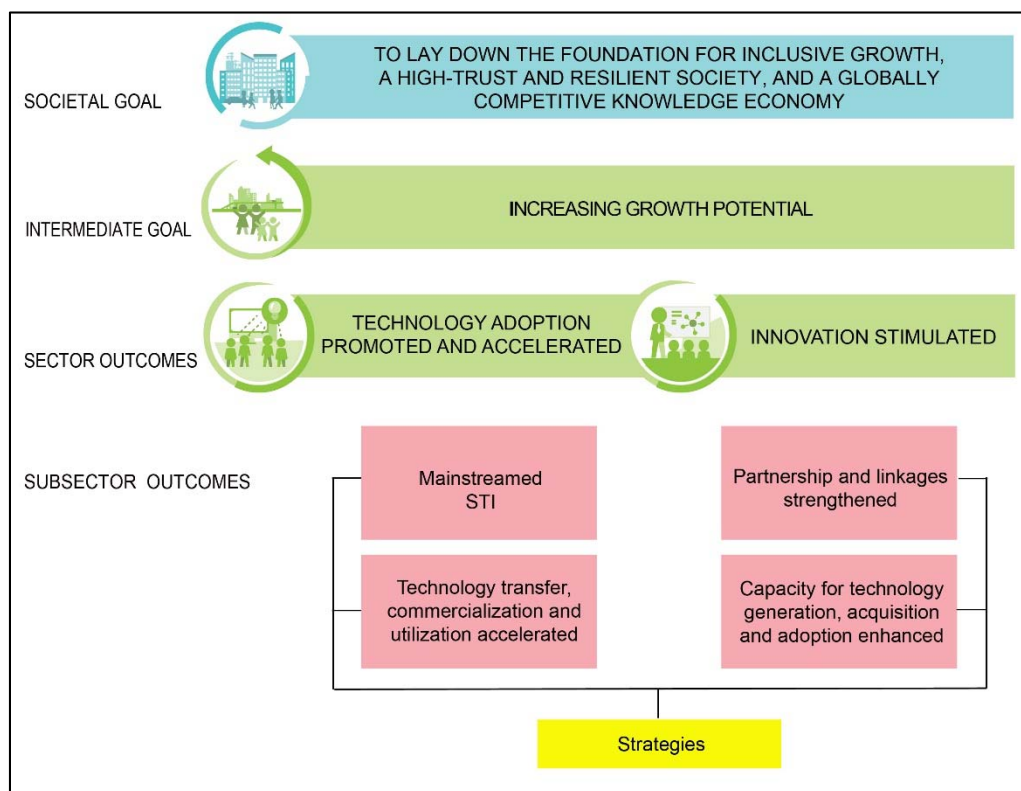
- **The need to develop the culture of STI.** Public awareness on STI is a key to encourage the youth to pursue science and technology disciplines. Education at an early age will play an important role in changing the mindset of the younger generation and building the culture of creativeness and innovation. Research culture in universities needs to be strengthened and commercialization of research results should be pursued. STI needs to be mainstreamed in the government bureaucracy, adopting a science-based plans and policy decisions.
- **The need to strengthen partnership and innovation linkages.** Partnership and innovation linkages should be strengthened between HEIs and industries as technology generators and adopters, respectively.

Strategic Framework

Promoting and accelerating technology adoption and stimulating innovation will contribute to increasing potential for growth or “*Patuloy na Pag-unlad*” towards laying down the foundation for inclusive growth, a high trust and resilient society, and a globally competitive knowledge economy. By 2022, the following subsector outcomes

should have been achieved: (a) STI mainstreamed; (b) technology transfer, commercialization and utilization accelerated; (c) partnership and linkages strengthened; and (d) capacity for technology generation, acquisition and adoption enhanced. Figure 14.1 presents the Strategic Framework to Leverage Science, Technology and Innovation.

Figure 14.1 Strategic Framework to Leverage Science, Technology and Innovation, 2017-2022



Targets

The Bicol RDP 2017-2022 targets to increase the government expenditure for R&D from PhP147 million in 2013, and the R&D intensity (R&D expenditure/GRDP) from 0.07 percent in 2013.

Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1:
Mainstreamed STI in the national and local agenda

- **Strengthen the policy and monitoring framework.** The implementation of the RA 10055 or the Philippine Technology Transfer Act of 2009, RA 8293 or the Intellectual Property Code of the Philippines, RA 7459 or the Inventors and Inventions Incentives Act of the

Philippines, and RA 8439 or the Magna Carta for Scientists, Engineers, Researchers and other S&T Personnel in the Government shall be strengthened.

- **Foster the STI culture.** The STI culture shall be integrated in the curriculum of the K-12 program. The science, technology, engineering, and math (STEM) courses and creative arts shall be encouraged. The STI culture shall be instilled to government officials for an effective decision making. The DOST's Philippine Science High School scholarship program, undergraduate scholarship program (under the Junior Level Science scholarship) and the Accelerated Science and Technology Human Resource Development Program shall be intensified.

Subsector Outcome 2: Technology transfer, commercialization and utilization accelerated

- **Adopt mechanisms for dissemination and utilization of technology.** All government funding agencies, R&D institutions shall ensure that the outputs are transformed into tangible products, processes and methods. Technology business incubation in partnership with the private sector and research institutions shall be established. The Startup Ecosystem Development Program of the DTI will usher sustainable businesses and foster linkages among MSMEs to strengthen collaborative networks within the ecosystem. At the national level, a

Philippine Startup Economic Zone shall be established to provide assistance in connecting startups with industry and potential markets.

- **Establish innovation hubs.** Food innovation centers, shared service facilities, R&D centers, DRR-CCA hub, and technology business incubation centers shall be established in strategic areas across the region.

Subsector Outcome 3: Partnership and linkages strengthened

- **Strengthen government-academe-industry linkage.** Collaboration among universities, R&D institutions, industry, and the government shall be strengthened. The Bicol R&D Committee of the RDC shall be institutionalized to set the direction of the R&D agenda in the region. It shall be the governing body on research services and science and technology in the region to ensure that research recommendations are converted into tangible tools that can be used for commercialization and utilization. A regional research agenda shall be formulated that is aligned with the priorities of the National Science and Technology Plan. The three research consortia (BCHRD, BCAARRD and BCIEERD) shall build stronger partnership with the industry sector. The *Balik Scientist Program* shall be strengthened, taking advantage of the knowledge and skills of returning OFs. International linkages shall be promoted to create R&D partnership and capability building activities.

Subsector Outcome 4: Capacity for technology generation, acquisition and adoption enhanced

- **Formulate the R&D plan for the region.** The R&D plan shall set the direction and investments in R&D. The formulation of the R&D plan shall be coordinated by the Bicol R&D Committee, with the DOST as lead.
- **Increase the ability to develop new products and processes.** This can be achieved by building the critical mass of STI human resource through continuous support to science and technology scholarships such as Specialized Science Secondary Education, undergraduate and post graduate scholarships, and specialized trainings. A competitive working environment shall be in place to motivate competent human resource to remain in the country and encourage Filipino experts working abroad to return and work in the country.
- **Strengthen STI infrastructure.** High quality and accessible R&D facilities and STI infrastructures shall be increased. The disaster resilient R&D and innovation centers shall be established, and the R&D facilities and STI infrastructures of SUCs shall be modernized. The ICT infrastructure shall be improved particularly on addressing the quality of internet connectivity and internet coverage. (*Refer to Chapter 19*) The existing services of DOST shall be continued such as the OneLab and standards and testing services. A new Regional Standards and Testing Laboratory and Regional Metrology Laboratory shall be constructed by DOST.
- **Improve DRR-CCA initiatives through STI.** The DRR-CCA initiatives shall be enhanced by providing accurate weather forecast using appropriate and effective weather instruments and technologies. Assessment of existing risks shall be improved through the use of modern technologies.

PART V

ENABLING AND SUPPORTIVE ECONOMIC ENVIRONMENT



15 Ensuring Sound Macroeconomic Policy

Ensuring Sound Macroeconomic Policy

A sound, stable and supportive macroeconomic environment is essential for expanding economic opportunities and fostering sustained growth. Macroeconomic stability encompasses sound fiscal policies, price stability, sustainable current account on the balance of payments, sustainable debt ratios, and a well-functioning real economy. A fiscal sector that is responsible, strategic, and supportive of inclusive growth can boost the economy and provide 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.

The Bicol Region shall contribute to the attainment of a sound and stable macroeconomic environment to encourage investors to locate their businesses in the region that will provide the much-needed employment opportunities for the Bicolanos.

Assessment and Challenges

Local revenues. The total revenues generated by the LGUs in the region amounted to PhP4.2 billion in 2016, an increase by 17 percent from last year. The LGUs' sources of revenues were: (a) real property tax at 28 percent of total revenues collected; (b) business tax at 27 percent; (c) fees and charges at 23 percent; and (d) income from economic enterprises at 22 percent. Although collection in Albay grew by only 17 percent, it had the largest revenue in 2016 particularly from business tax and economic enterprises. This implies that the business sector in the province were more robust compared to other provinces. On the other hand,

Camarines Norte was the most improved province in terms of tax collection activities as shown in Table 15.1. Among the cities, Naga had the highest collection in 2016 but Sorsogon had the highest increase in revenue from 2015. A good performance of LGUs in revenue collection is one of the competitiveness measures on economic dynamism under the CMCI of the National Competitiveness Council. For two consecutive years, Naga City ranked first in economic dynamism and recognized as the most competitive independent city in the entire country.

Efficient collection of taxes capacitates

LGUs to provide the needed goods and services to its constituents, and strengthen its support to development initiatives by other agencies of the government and the private sectors to uplift the living condition of the people. Records show that, on the average, the province of Masbate had the highest IRA dependency ratio at 95 percent in 2014 and had the lowest increase in revenue generation from 2015 to 2016. Catanduanes and Camarines Norte were the least dependent provinces on IRA as

shown in Table 15.2. Among the cities, Ligao was the most IRA dependent city at 90 percent with Naga City as the least IRA dependent city at 53 percent. Low collection performance of LGUs translates to very high dependency on IRA. The region's LGUs have generally high IRA dependency ratio with 82 percent on the average, hence, there is a need to capacitate LGUs to enhance and sustain their revenue collection, and thus, reduce IRA dependency.

Table 15.1 Total Revenues Collected by Source, by Province and City, Bicol Region: 2015 and 2016 (in P Million)

PROVINCE/ CITY	REAL PROPERTY TAX		BUSINESS TAX		FEES & CHARGES		INCOME FROM ECONOMIC ENTERPRISES		TOTAL REVENUES		
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	% INC.
Albay	208	158	96	143	48	87	181	234	533	622	17
Cam.Norte	60	134	97	127	181	185	36	44	374	490	31
Cam.Sur	109	182	91	129	92	94	127	130	419	535	28
Catanduanes	56	85	28	38	45	44	62	78	191	245	28
Masbate	108	136	87	89	96	67	74	81	365	373	2
Sorsogon	47	59	33	30	225	283	55	60	361	432	20
Iriga City	17	25	21	32	11	10	26	27	76	94	24
Legazpi City	124	130	178	203	28	32	34	36	363	401	10
Ligao City	13	13	24	23	16	17	12	14	64	67	5
Masbate City	13	13	36	24	8	20	26	26	83	83	-
Naga City	200	209	223	265	50	65	127	144	600	683	14
Sorsogon City	20	47	43	44	17	14	6	5	86	110	28
Tabaco City	30	25	24	28	11	11	14	15	79	79	-
Grand Total	1,005	1,216	981	1,175	828	929	780	894	3,594	4,214	17

Source: Bureau of Local Government Finance (BLGF) Region 5

OF remittances. The Philippines was able to cope up with global economic shocks due to foreign exchange remittances. The share of remittances to the Gross National Product (GNP) over the past ten years has been substantial,

ranging from eight percent to ten percent and it has kept the Philippine economy afloat in times of economic crisis. In addition, cash remittances from OFs amounted to US\$ 25.8 billion or 15 percent of the country's GDP.

Challenges include the use of unregulated channels for remittance due to high cost, stringent requirements and limited financial inclusion, and absence of an effective mechanism to maximize the gains from OF remittances.

Government efforts for OFs consist of: (a) specialized investment products and services offered by commercial banks; (b) hedging program and Long-Term

Negotiable Certificates of Deposit of OFs by the Development Bank of the Philippines and Land Bank of the Philippines; (c) promotion of microfinance to help channel remittances to rural households to invest in small scale businesses; and (d) alternative savings and investment products for OFWs offered by the Social Security System and Pag-IBIG Fund.

Table 15.2 Dependency Ratio on Internal Revenue Allotment by Province and City, Bicol Region: 2010-2014

PROVINCE/ CITY	2010	2011	2012	2013	2014	AVE. (%)
Albay	85	91	92	92	91	90
Camarines Norte	88	86	86	87	84	86
Camarines Sur	86	95	96	97	94	94
Catanduanes	88	91	83	80	84	85
Masbate	96	95	94	95	94	95
Sorsogon	93	92	90	88	83	89
Iriga City	87	84	83	82	82	84
Legazpi City	67	66	61	59	60	63
Ligao City	93	93	91	89	86	90
Masbate City	86	85	2	89	86	70
Naga City	56	54	49	48	46	51
Sorsogon City	86	86	85	84	85	85
Tabaco City	85	79	82	80	84	82

Source: BLGF Region 5

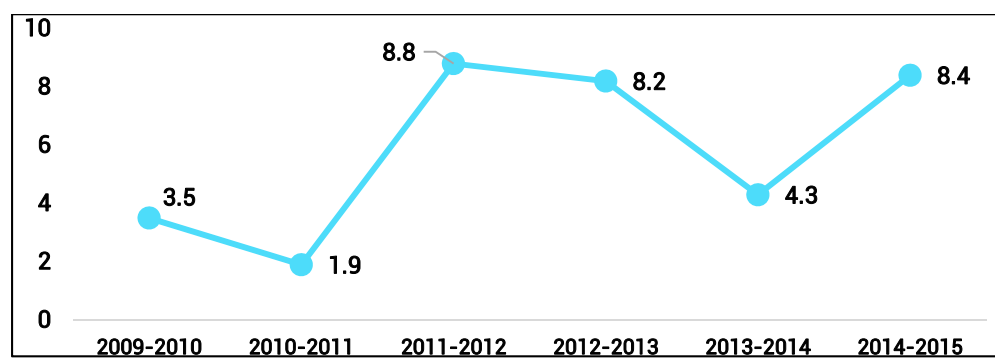
Regional economy. The region's economy grew at an average rate of 5.8 percent from 3.5 percent in 2010 to 8.4 percent in 2015 (Figure 15.1). Services accounted for the biggest share of the region's economy with an average share of 56 percent over a six-year period, followed by AHFF at 24 percent, and industry at 20 percent (Table 15.3). The AHFF share to the total economy

continued to decline from 26 percent in 2010 to 24 percent in 2015. The decline in AHFF was absorbed by the industry sector which has been increasing since 2012. The economy recorded the fastest growth in 2012 and 2015 at 8.8 percent and 8.4 percent, respectively. The unprecedented growth in 2012 from 1.9 percent in the previous year was brought about by the remarkable 14.5 percent

growth of the industry sector from a 2.6 contraction in 2011. (*Refer to Chapter 3*) In terms of GRDP per capita using current prices, the region posted the second lowest in 2015 at PhP46,000, only besting the Autonomous Region for Muslim Mindanao with PhP26,000. With a 5.8 percent share in the national

population, the 2.1 percent share in the GDP is considerably insufficient to have a significant dent in poverty reduction. Thus, the region is faced with a big challenge of translating the economic gains to high paying jobs and higher per capita income to uplift the quality of life of the *Bicolanos*.

Figure 15.1 GRDP Growth Rate, Bicol Region: 2010-2015
(At Constant 2000 Prices, In Percent)



Source: PSA

Price situation. The movement of prices in the region, as indicated by the consumer price index (CPI), continued to increase from 2011 to 2016 at an average of 136.9, as shown in Table 15.1. This implies that consumer prices, on the average, have increased by 36.9 percent from 2006. A CPI measures the change in the average retail prices of a basket of goods and services commonly purchased by the households relative to the base year 2006. However, the rate of increase in prices, as measured by inflation rate, showed an irregular trend during the six-year period. Inflation rate was at its highest in 2014 which could be attributed to the increase in prices of commodity items in the food basket when typhoon Yolanda brought great damage to the agriculture sector in 2013. In 2015,

inflation rate remarkably declined which was attributed to a five-month deflation period from August to December as inflation rates fell below zero percent. The months of September and October registered the lowest level of prices of goods and services as deflation rate reached 0.8 percent. The existence of deflation was a result of low oil prices that translated to downward adjustment to transport cost. This benefited the economy through an increase in household real income brought about by a decline in the cost of fuel and fuel-related items that account for nearly nine percent of the CPI basket. The steep decline in oil prices also resulted to lower cost of production, resulting to an oversupply of goods in the market, thus, lowering the prices of goods and services.

In 2016, inflation rate averaged at 1.1 percent from a negative 0.2 percent in January to 3.2 percent in December. The rise in inflation rate was due to a faster increase in prices of food and non-alcoholic beverages, transportation cost, and the so called “sin” products such as alcohol drinks and tobacco. The increase in prices could also be traced from the decline in agricultural production due to adverse weather condition. On the

average, inflation rate in the region over a seven-year period was only 3.2 percent while the purchasing power of peso (PPP) was 0.73. A PPP of 0.73 means that a peso in 2006 is only worth 73 centavos in December 2016, and a buyer has to pay 27 centavos more to get the same goods that can be bought with one peso in 2006. The government should take measures to manage a single digit inflation rate.

Table 15.3 Consumer Price Index, Inflation Rate, and Purchasing Power of Peso, Bicol Region: 2010-2016 (At Constant 2000 Prices, In Percent)

YEAR	CPI	INFLATION RATE	PURCHASING POWER OF PESO
2010	123.1	4.00	0.81
2011	128.8	4.60	0.78
2012	132.4	2.80	0.76
2013	137.0	3.50	0.73
2014	144.2	5.30	0.69
2015	145.6	1.00	0.69
2016	147.2	1.10	0.68
Average	136.9	3.19	0.73

Source: PSA

Financial Inclusion. The BSP defined financial inclusion as a state wherein there is effective access to a wide range of financial services for all. The BSP reported that some evidence indicates that access to basic financial services such as savings, payments, and credit make a positive difference in people’s lives. It is important not only to the business sector but to every household as well. Financial sector plays a vital role in improving the well-being of the poor, particularly the small farmers and fisherfolks, and the growth of MSMEs. The growing number and significant role of MSMEs in spurring national and regional economic

growth should be given access to financing as they are the sector that generate the most number of jobs at the local level. On the other hand, inclusive growth could only be attained if the marginalized and most vulnerable sector of the society – the subsistence farmers and fisherfolks, will be extended with financial assistance through micro financing.

Access to financial services, however, remains an important challenge especially at the local level. While there is a sustained increase in the number of banks and ATMs, the distribution is

highly skewed towards highly populous and urbanized areas as shown in Tables 15.2 and 15.3. As of December 2016, the Bicol region has a total of 422 banks classified as universal or commercial banks (33%); thrift banks (20%); and rural and cooperative banks (47%). Of this total, 160 banks (38%) are located in Camarines Sur, of which 73 percent are in Naga City, eight percent in Iriga City, and the rest are distributed in the different municipalities of the province. There are 116 banks (27%) located in Albay, distributed in Legazpi City (41%); Ligao City (6%); Tabaco City (14%); and the rest are located in the different municipalities of the province. Masbate has 48 banks, 15 of which are in Masbate City; Sorsogon has 44 banks and 23 are located in Sorsogon City; Camarines Norte has 39 banks; and Catanduanes has 15 banks (Table 15.4). There were 399 ATMs distributed in the different provinces of the region as shown in Table 15.5. Most of these ATMs are located in the cities and urban municipalities. Forty-one percent are located in Camarines Sur, of which, 43 percent are in Naga City; eight percent in Iriga City, and the rest are in the different municipalities of the province. Second with the highest number of ATMs is Albay (33%), followed by Masbate, Sorsogon, Camarines Norte and Catanduanes. The concentration of banks in the urban areas translates to a disparity in the provision and distribution of financial services and which also affect the accessibility of financing in rural areas where financial assistance is needed most.

Access to financing is also hindered by the stringent requirements by some financial institutions and even government banks that require collaterals, feasibility studies and other documents. Effective access does not only mean that there are financial products and services that are available but these products and services must be appropriately designed and relevant to benefit the person or enterprise accessing the said service. Report from BSP showed that there were only 15 banks that granted loans through microfinance to 30,289 borrowers amounting to PhP296 million in 2016.

Access to financing can be measured by the loans to deposits ratio (LDR). Loans to deposits ratio is used in determining the amount of money that a bank has granted versus the amount of current deposits on hand at that same time. Table 15.6 shows that Camarines Sur had the highest LDR in 2016 followed by Albay, Camarines Norte, Catanduanes, Masbate and Sorsogon. This implies that banks in Camarines Sur may be earning more than those in other provinces as money deposited by their clients are being loaned out at higher rates. The LDR also indicates if money is available to finance viable investments that will create jobs in the area. Banks, however, also maintain a manageable LDR – if the ratio is too high, the banks might not have enough liquidity to cover any unforeseen funding requirements or economic crises. It is a commonly used statistics for assessing a bank's liquidity.¹³

¹³ https://en.wikipedia.org/wiki/Loan-deposit_ratio

Table 15.4 Number of Banks by Type, by Province and City, Bicol Region: 2010-2016

PROVINCE/CITY	2010	2011	2012	2013	2014	2015	2016
Albay	NDA	NDA	88	95	104	108	116
Legazpi City	NDA	NDA	36	39	41	43	48
Ligao City	NDA	NDA	7	6	6	6	7
Tabaco City	NDA	NDA	14	14	15	16	16
Camarines Norte	NDA	NDA	30	32	36	37	39
Camarines Sur	NDA	NDA	121	144	147	152	160
Naga City	NDA	NDA	53	62	63	65	69
Iriga City	NDA	NDA	7	8	8	10	13
Catanduanes	NDA	NDA	10	12	12	13	15
Masbate	NDA	NDA	36	34	40	41	48
Masbate City	NDA	NDA	13	13	14	15	15
Sorsogon	NDA	NDA	30	36	41	44	44
Sorsogon City	NDA	NDA	18	21	23	24	23
Region 5	271	281	315	353	380	395	422
By Type of Bank							
Universal/Commercial banks	100	102	104	120	134	138	139
Thrift Banks	40	40	44	56	64	75	85
Rural & Cooperative banks	131	139	141	177	182	182	198

Source: Bangko Sentral ng Pilipinas (BSP) Legazpi City

Table 15.5 Number of Automated Teller Machines by Province and City, Bicol Region: 2012-2015

PROVINCE/CITY	2012	2013	2014	2015
Albay	91	108	121	130
Legazpi City	59	71	79	86
Ligao City	5	5	5	5
Tabaco City	14	15	17	17
Camarines Norte	19	24	30	33
Camarines Sur	110	137	149	164
Naga City	72	89	94	102
Iriga City	11	11	11	12
Catanduanes	8	8	11	14
Masbate	15	18	23	26
Masbate City	15	18	23	24
Sorsogon	18	25	28	32
Sorsogon City	14	19	20	22
Region 5	261	320	362	399

Source: BSP Legazpi City

Table 15.6 shows that Albay exhibited the highest increase in the amount of loans granted, followed by Masbate, Camarines Norte, Camarines Sur and Catanduanes. This may be attributed to low interest environment in the region which attracted more borrowers to avail of loans from banks in these provinces. Most of these borrowers were in construction business. Banks in Sorsogon showed a

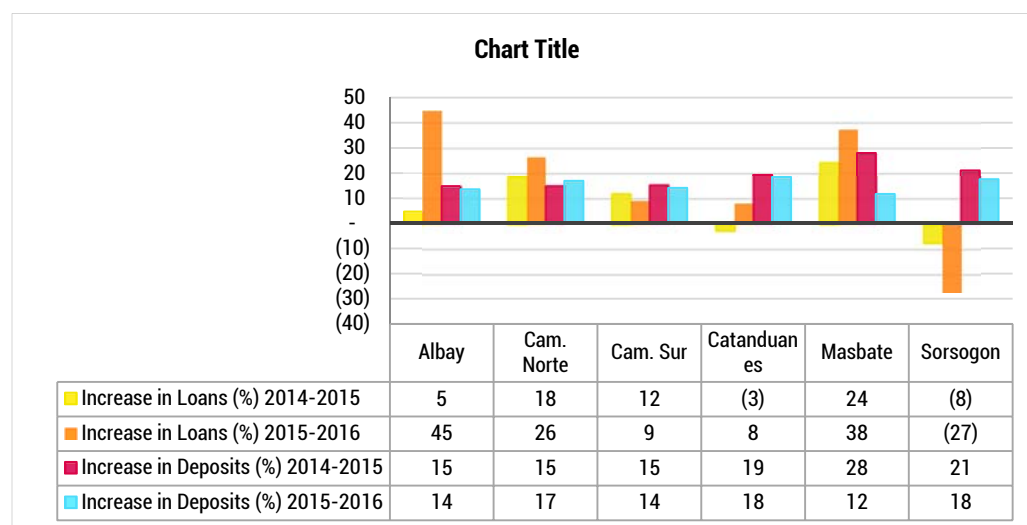
decline in the amount of money loaned out in 2016. In terms of deposits, banks in Sorsogon and Catanduanes recorded the highest increase, followed by Camarines Norte, Albay, Camarines Sur, and Masbate. It was observed that provinces with higher rate of increase in the amount of loans have lower increase in deposits.

Table 15.6 Amount of Loans and Deposits by Province, Bicol Region: 2014-2016

PROVINCE	LOANS (PhP million)			DEPOSITS (PhP million)			LOANS TO DEPOSIT RATIO (in percent)		
	2014	2015	2016	2014	2015	2016	2014	2015	2016
Albay	8,475	8,874	12,846	32,177	36,940	41,928	26	24	31
Camarines Norte	1,988	2,354	2,976	7,505	8,627	10,086	26	27	30
Camarines Sur	12,458	13,938	15,206	30,607	35,290	40,261	41	39	38
Catanduanes	1,107	1,077	1,164	2,943	3,510	4,157	38	31	28
Masbate	1,140	1,416	1,947	5,814	7,441	8,311	20	19	23
Sorsogon	1,882	1,740	1,267	6,612	8,003	9,408	28	22	13
Region 5	27,050	29,398	35,407	85,658	99,811	114,151	32	29	31

Source: BSP Legazpi City

Figure 15.2 Amount of Loans and Deposits by Province, Bicol Region: 2014-2016



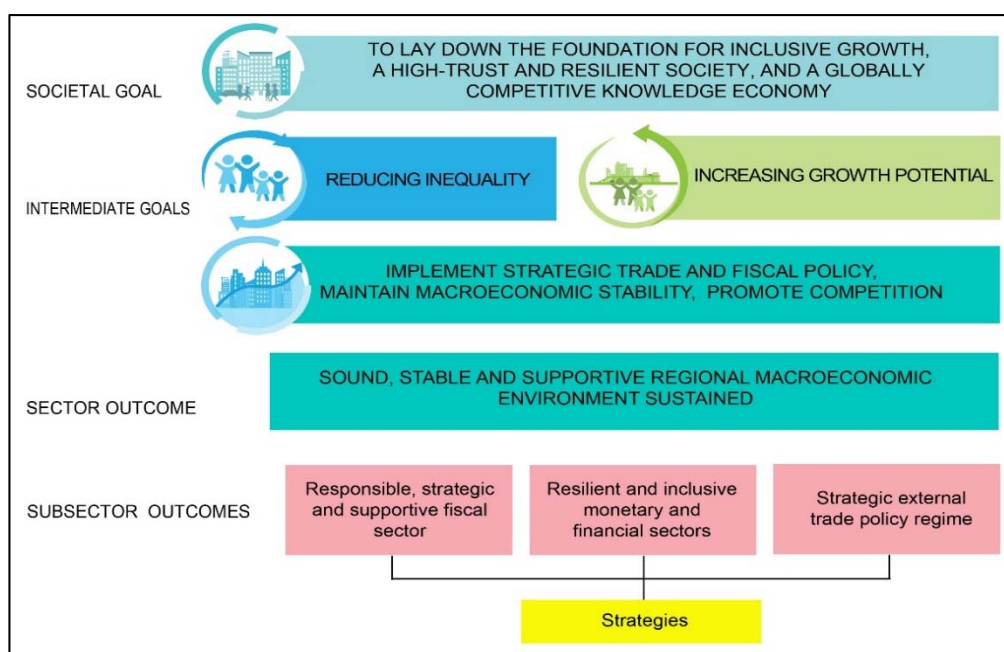
Source: BSP Legazpi City

Strategic Framework

Implementing strategic trade and fiscal policy, maintaining macroeconomic stability, and promoting competition will contribute to reducing inequality or “Pagbabago” and increasing potential growth or “Patuloy na Pag-unlad” towards laying down the foundation for inclusive growth, a high trust and resilient society, and a globally competitive knowledge economy. By

2022, the following subsector outcomes should have been achieved: (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. Figure 15.3 presents the Strategic Framework to Ensure Sound Macroeconomic Policy.

Figure 15.3 Strategic Framework to Ensure Sound Macroeconomic Policy, 2017-2022



Targets

The Bicol RDP 2017-2022 targets a gross regional development product growth rate of 11.2 percent in 2022 from 8.4 percent in 2015. It targets higher growth rates in: (a) AFF from negative 2.3 percent in 2015; (b) industry from 23.7 percent in 2015;

and services from 7.5 percent in 2015. By 2022, the region has maintained a single digit inflation rate, and the average internal revenue allotment of dependency ratio of all LGUs has declined.

Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Responsible, Strategic and Supportive Fiscal Sector

- **Capacitate LGUs to enhance revenue collection.** The LGUs need to maximize their fiscal autonomy or their own revenue-raising powers granted to them by the Local Government Code of 1991. The dependence on IRA is a result of the absence of a tax base for local revenue generation in most LGUs. Among the potential measures are (a) professionalization of local treasurers through 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 the LGUs to comply with Local Government Code 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. LGUs are authorized to enter

into joint-venture agreements with the private sector in the implementation of local development initiatives.

- **Promote OFs investments.** Pre-departure and pre-migration orientation seminars can be useful tools to instill the proper investment spirit among OFs and their families. More in-depth financial literacy and entrepreneurship initiatives shall be undertaken by the government (agencies and local government unit) to encourage OFs and their families to save and invest. Putting up of rural and agri-based enterprises shall be encouraged in the region for returning overseas Filipinos.
- **Support the amendments to the Build-Operate-Transfer (BOT) Law.** There is a need to update the BOT Law to address the various issues at each stage of the project cycle, from entry level to project implementation and completion. Specifically, this action aims to improve the process of project appraisal, contract management, and management of contingent liabilities.

Subsector Outcome 2: Resilient and inclusive monetary and financial sectors

Monetary Policy

- **Maintain flexible inflation.** The government shall ensure that the inflation environment remains stable and consistent with the evolving

domestic price dynamics and sustained economic growth objectives.

Financial Policy

- **Strengthen the effectiveness of financial inclusion.** Initiatives shall focus on the efficient delivery of microfinancing and micro-insurance products and services for Filipinos including those who are living abroad. These initiatives shall include various economic and financial literacy activities that will be undertaken to encourage their participation in economic governance and harness the investment potential of OF remittances towards innovative financial instruments such as personal equity and retirement funds or insurance products. These shall be complemented by the creation of mechanisms that will cater to their financial needs.
- **Promote efficiency and innovation in microfinance.** Microfinance services such as credit access of MSMEs and farmers and fisherfolks cooperatives shall be broadened. For microcredit to reach its full potential, credit bureaus, and movable collateral registries shall be developed and strengthened.

Subsector Outcome 3: Strategic external trade policy regime

The government will focus on providing support and promoting products where the region and the country have comparative advantage and the potential for competitive advantage. The region shall support the external trade policy

particularly on the 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 growth of enterprises.

- **Expand market access and diversify export products and markets.** Advocacy and capacity-building programs to encourage businesses, especially MSMEs, to maximize export opportunities and increase utilization of preferential trading agreements shall be continued. Support programs to enable MSME exporters to graduate to higher levels shall also be put in place. Comprehensive support packages (e.g., SSF) shall be provided to priority sectors with comparative advantage.
- **Intensify marketing and promotion of Bicol goods and services.** Promotion of Bicol high-quality goods and services shall be intensified to increase their presence in the international market. Promotion and marketing activities shall include participation to domestic and international trade fairs, sustained brand awareness campaign programs, building partnerships to feature Bicol, Philippines-made products, use of social media platforms, among others.
- **Explore new markets for Bicol exports.** Maximize opportunities in Asia and link with emerging markets, which are expected to grow over the long-term.

- **Increase the competitiveness of Bicol exports.** Minimize the cost of production and delivery of goods and services through reforms. Continue efforts to ease the cost of doing business. Bicol exporters shall be encouraged to continue improving their products through product development and packaging, among others.
- **Encourage and support innovation in the region'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 shall include (a) R&D for agricultural products and services with high demand in the world market, and (b) quality packaging materials that use locally-sourced materials. (*Refer to Chapter 14*)
- **Develop human resources and improve institutional structures.** Prioritize continued training for skills needed for higher value services to be able to diversify services exports. The region shall focus on the improvement of its tourism-related services. (*Refer to Chapters 9 and 10*)
- **Enhance resiliency against climate change.** This shall be done by developing policies to ensure business continuity and mitigate risks to businesses or enterprises during disasters. (*Refer to Chapter 20*)
- **Provide adequate infrastructure and logistical support.** This aims to achieve connectivity and ensure efficient flow of goods and services domestically and internationally, as well as 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 to improve their competitiveness. (*Refer to Chapter 19*)

Policy Action

The following policy actions shall be supported by the Bicol RDP 2017-2022 to strengthen the effectiveness of identified strategies:

Table 15.7 Legislative Agenda to Sustain a Sound, Stable and Supportive Macroeconomic Environment, 2017-2022

LEGISLATIVE AGENDA	RATIONALE
Fiscal Sector	
Comprehensive 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	Institute 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 1981	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 ¹⁴	Expand and improve the operations of BSP.

¹⁴ These include (a) increased capitalization; (b) authority to issue negotiable certificates of indebtedness; (c) authority to establish reserves against open market operation costs and foreign exchange fluctuations; (d) tax exemption; (e) authority to require data and information from the non-bank private sector; (f) removal of the thresholds in the growth of monetary aggregates and credits; (g) formal recognition of financial stability as a BSP mandate and as a shared responsibility with other government agencies; and (h) oversight of the payment and settlement systems.

LEGISLATIVE AGENDA	RATIONALE
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 organization 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 (CIS) 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.	

16

Leveling the Playing Field

Leveling the Playing Field

The national competition policy aims to protect the consumers by giving them more choices of quality goods and services at lower prices. It seeks to level the playing field by prohibiting anti-competitive agreements among business players, abuses of firms who dominate the market, and mergers and acquisitions that limit and restrict competition.

With the dawn of borderless economy, the name of the game is globalization which leads to the reduction of trade barriers worldwide, thus opening wide the marketplace for local products. To be able to compete with foreign firms, there is a need to enhance the competitive behavior and technical efficiency of our industries. To do this, the government has started laying the groundwork for promoting competition – an essential element to make the individual markets work efficiently to make them compete with foreign firms better. It also provides opportunities for individuals to enter the marketplace and start new businesses, thus, stimulate investments that will create quality jobs for the people. Competition not only reduces the need for government regulation of business but it also promotes inclusive economic growth as it benefits the consumers, particularly the marginalized sector of our society,

The Bicol RDP 2017-2022 supports market competition and the implementation of RA No. 10667 or the Philippines Competition Act (PCA) which was signed into law by President Aquino on July 21, 2015. The PCA provides for the formulation of a National Competition Policy (NCP) which aims to steer regulations and administrative procedures of government agencies toward promoting competition, as well as strengthen the enforcement of anti-trust laws and effectively ensure competitive neutrality. It specifically provides for the creation of the Philippine Competition Commission (PCC) which will conduct inquiries, investigate, hear, and decide on cases involving anti-competitive arrangements, 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.

Assessment and Challenges

The region's contribution to the improvement of the country's competition environment is its participation to the Cities and Municipalities Competitiveness Index (CMCI). The CMCI measures LGUs' competitiveness based on the three pillars:

economic dynamism, government efficiency, and infrastructure.

Sustaining the competitive environment at the local level. The increasing number of participating LGUs signifies a higher level of interest and awareness on the

importance of being measured and a stronger commitment to improve LGU performance on the three pillars of competitiveness. The National Competitiveness Council (NCC), the same agency that tracks the country's ranking on the Global Competitiveness Index (Table 16.1), believes that the LGUs are the building blocks of national competitiveness. The partner of the NCC in the Bicol region is the Bicol Regional Competitiveness Committee tasked to regularly assess LGUs in the region based on the local competitiveness indicators; formulate programs to improve competitiveness; and engage in investment promotion activities to attract investors and create new jobs. By developing competitive LGUs across the nation, the NCC is optimistic that this would contribute to the overall attractiveness of the country as a preferred place to do business - more competitive cities and municipalities mean more competitive Philippines. Thus, there is a

need to sustain the commitment of the local chief executives and establish systems to monitor or track the innovations to enhance competitiveness of the LGUs.

The Bicol region has been an active participant to the CMCI since it started in 2013. Out of 163 participating municipalities in the country, Daet, Camarines Norte ranked fourth in 2013, and emerged as the most competitive municipalities in 2014. However, in the succeeding years, Daet was not able to maintain its rank. On the other hand, Naga City started from the ninth place in 2013, third in 2014, and was able to secure its position as the overall most competitive component city in two consecutive years. Legazpi City improved in ranking from 15th place in 2015 to third place in 2016 joining Naga City in the top three most competitive component cities in the country.

Table 16.1. Global Competitiveness Index Rankings of Nine ASEAN Member States

BUSINESS DYNAMISM		PRODUCT MARKET EFFICIENCY		MARKET SIZE	
Country	Rank	Country	Rank	Country	Rank
Singapore	12	Singapore	1	Indonesia	10
Malaysia	21	Malaysia	12	Thailand	18
Brunei D.	56	Thailand	37	Malaysia	24
Viet Nam	76	Indonesia	58	Philippines	31
Philippines	86	Brunei D.	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 D.	116

Source: PDP 2017-2022

Consolidation and management of data.
The repository of data at the LGU level are

with the different departments, thus making consolidation and analysis a feat

to counter. The lack of personnel or unit that will handle data management is further exacerbated by fast turn-over or transition of personnel at the LGU level. This could be attributed to seemingly lack

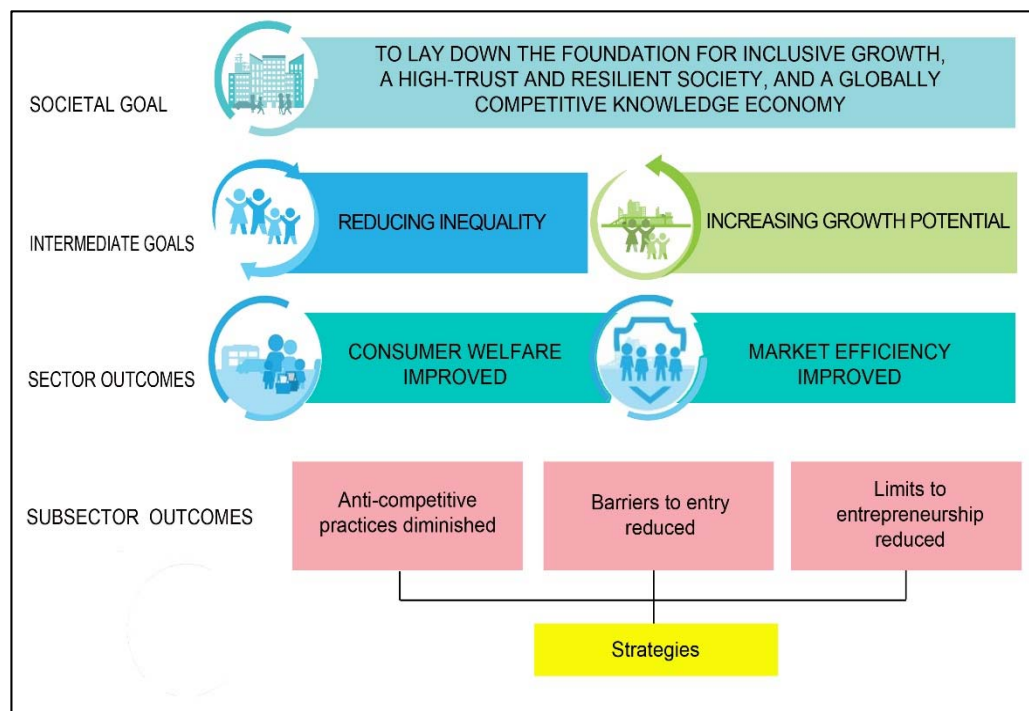
of appreciation on the importance of data by some LCEs. Local data and information are one of the first considerations of some investors in their decision making for investment.

Strategic Framework

Improving consumer welfare and market efficiency will contribute to reducing inequality or “*Pagbabago*” and increasing potential growth or “*Patuloy na Pag-unlad*” towards laying the foundation for inclusive growth, a high trust and resilient society, and a globally competitive knowledge economy. By 2022, the

following subsector outcomes should have been achieved: (a) LGUs competitiveness improved; (b) anti-competitive practices diminished; (c) barriers to entry reduced; and (d) limits to entrepreneurship reduced. Figure 15.1 presents the Strategic Framework to Level the Playing Field.

Figure 16.1. Strategic Framework to Level the Playing Field, 2017-2022



Targets

The Bicol RDP 2017-2022 targets to increase the number of competitive cities and municipalities in the top 20 of the

annual Cities and Municipalities Competitiveness Index survey of the National Competitiveness Council.

Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: LGUs competitiveness improved

- **Strengthen institutional and technical capacity of LGUs.** Developing competitive LGUs across the nation will contribute to the overall attractiveness of the country as a preferred place to do business - more competitive cities and municipalities mean more competitive Philippines. Capacity building activities for LGUs shall be conducted to attain economic dynamism, government efficiency, and infrastructure development. The ease of doing business in the locality shall be promoted among LGUs. The annual CMCI survey of the NCC shall be supported with legislation from the local “*sanggunian*” to sustain the participation of LGUs in the competitiveness activities. A focal person for the annual CMCI survey shall be appointed and shall report directly to the office of the mayor.
- **Improve LGUs data management and information system.** Each LGU shall have a unit under the office of the local chief executive who shall be responsible

in managing the data and information at the LGU level using information technology. A system for competitiveness indicators used in the annual CMCI survey shall be developed.

The strategies in the PDP 2017-2022 that will be supported by the Bicol RDP are:

Subsector Outcome 2: Anti-competitive practices diminished

- **Provide inputs in the review of anti-competitive legislation and policies.** The Bicol RDC shall pass resolutions, as necessary, to support any anti-competitive legislation and policies that require actions from the executive and legislative branches.
- The Project Repeal shall be disseminated to all agencies of the government and the private sector to better understand the importance of what the government is doing to provide an environment conducive to investments. Too much regulations can dampen economic development and competition, thus, the project aims to repeal unnecessary regulations to reduce barriers to entry and stimulate more competition. Restrictions on competition will be kept only if they are consistent with public interest.

- **Analyze competition issues in the region's priority sectors.** In addressing market competition issues, government shall prioritize sectors where the largest impact on consumer welfare and market efficiency are expected. Specific sectors shall be identified at the regional and local levels. In selecting priority sectors, the government shall 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.
- **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. Activities shall also be conducted to build awareness of competition-related policies and best practices and help consumers better comprehend the terms of services offered by firms. This could be part of the advocacy programs of the different agencies.

Subsector Outcome 4: Limits to entrepreneurship reduced

Subsector Outcome 3: Barriers to entry reduced

- **Support the PCC in the conduct of investigation and agreements that may substantially prevent, restrict, or lessen competition.** The enforcement of the PCA required the potentially anti-competition behavior while maintaining an environment where business can compete on a level playing field.

The impact of firms' actions on market efficiency, competition, and consumer welfare shall 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 can be derived from inhibiting anti-competitive practices.

- **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.

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 anticompetitive laws and regulations are passed, and institutionalizing transparency in the regulatory management processes.

Policy Action

The region shall support the enactment of complement the national competition the following policy actions to policy:

Table 16.2. 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 Foreign Investments Negative List, 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.
Regulatory Management System Act	The government will push for the passage of a new 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

Attaining Just and Lasting Peace

A just, protected and peaceful environment begets an inclusive economic progress. Lasting peace, being one of the top priorities of the government, is crucial for sustainable development growth. However, conflict-affected communities are evident in far flung areas, particularly where development efforts are not felt. People in these areas are poor, with very low access to basic services such as health and education, lack employment or livelihood opportunities and are isolated due to poor infrastructure access. The lives of these families are disrupted due to constant plight whenever peace and order situation is unstable or threatened. Doing business is not only unsafe but obtaining and securing property rights for commercial interest also prove to be a challenge.

The government has been relentless in its pursuit to attaining unprejudiced and enduring peace. Intensified peace building initiatives and development efforts in conflict-affected and conflict-vulnerable communities have been carried out unwaveringly. While peacekeeping achievements have been noted over the years, much more remains to be done.

Assessment and Challenges

The region revels in the benefits of improved peace and order environment as conflict-affected barangays were reduced to 136 in 2016 from 320 in 2011. While gains have been achieved, efforts to fully attain just and lasting peace for the entire region have to be strengthened and sustained. Public confidence, trust, and support to government programs and the overall peace process should be restored and maintained. People participation and the convergence of all key players in the peace process to combat divisiveness and intra-group conflicts should be continuously pursued for the successful implementation of all peace agreements.

At the national level, the peace negotiations with the Communist Party of the Philippines-New People's Army-National Democratic Front (CPP-NPA-NDF) has collapsed. After seven years of standoff, all efforts to facilitate the revival and resumption of formal peace talks between the government and CPP-NPA-NDF in 2011, was hampered by the postponement of peace talks as requested by the NDF when the government deemed it unacceptable and refused to give in to their demands to release from prison the alleged NDF Consultants who are all high-ranking CPP or NPA officers.

In the Bicol region, the improvement in the peace and security situation is attributed to the implementation of the peace building and development track programs that support the conflict-affected communities. The implementation of *Payapa at Masaganang Pamayanan* (PAMANA) program in identified conflict-affected areas includes social protection packages, community driven development projects, and capacity building for local governments. The sub-regional development interventions under the PAMANA have positive impacts to the lives of the *Bicolanos* such as barangay road projects as they did not only enable the beneficiaries to transport their produced goods to markets and provide access to education and employment, but they also mitigated and combat the re/infiltration of lawless elements.

Efforts to lessen, if not completely eliminate, the root causes of insurgency in the Bicol region have been ceaselessly pursued by the AFP. The AFP Triad operations inclusive of the combined intelligence, operations, and civil military operations (CMO) were deliberately done nonstop in conflict-prone areas. Promotion of the Comprehensive Local Integration Program (CLIP) of the national government was implemented to help eradicate the lawless elements (LLE) in the mass base, as well as the continuous implementation of security awareness program by both AFP and the PNP which are key to sustain just and lasting peace.

Other counter-insurgency measures in conflict-stricken barangays were

anchored on the National Internal Security Plan (NISP) which includes construction of school buildings by army engineers, joint medical and dental outreach program, memorandum of agreements among Philippine Ports Authority (PPA), Philippine Coast Guard (PCG), Maritime Industry Authority (MARINA), PNP and ship owners for security of ports, destruction of guerilla logistics, and deployment and maintenance of local troops in remaining conflict stricken areas. Moreover, the NISP is translated into the continuous implementation of the *Kabit Bisig Laban sa Kahirapan*-Comprehensive Integrated Delivery of Social Services (KALAHI) program which also comprises community-driven development projects.

With the varying degree of difficulty in clearing the affected barangays, the remaining two provinces, Masbate and Sorsogon, are targeted to be declared as Conflict Manageable and Ready for Further Development (CMRFD) before end of the planning period. The support from the LGUs through the peace and order councils is needed to facilitate the peacekeeping programs, projects and activities.

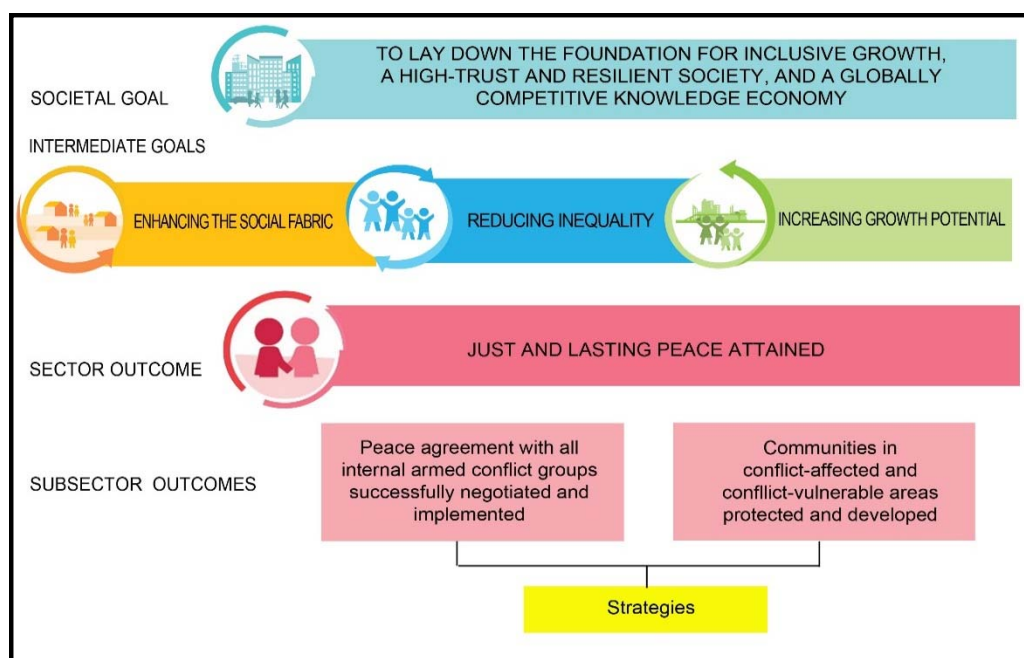
Intensified peace building efforts have to be sustained in conflict-affected and vulnerable communities to further reduce or eliminate insurgency and lawless elements. For a peaceful and secured living environment, zero number of conflict-affected barangay remains to be a priority.

Strategic Framework

Attaining just and lasting peace will contribute to enhancing the social fabric or “*Malasakit*”; reducing inequality or “*Pagbabago*”; and increasing growth potential or “*Patuloy na Pag-unlad*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive economy. By 2022, the following

subsector outcomes should have been achieved: (a) peace agreements with all internal armed conflict groups are successfully negotiated and implemented; and (b) communities in conflict-affected and conflict-vulnerable areas are protected and developed. Figure 17.1 presents the Strategic Framework to Attain Just and Lasting Peace.

Figure 17.1 Strategic Framework to Attain Just and Lasting Peace, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Peace agreements with all internal armed conflict groups successfully negotiated and implemented

- **Accelerate signing and implementation of peace accords with communist insurgents.** It is imperative that peace negotiations process between the government and the CPP-NPA-NDF be accelerated towards the signing of the final peace agreement. A high-level of confidence

between the two panels is relatively important to be ensured, as well as public confidence, trust and support be maintained. More so, inclusivity and transparency on peace agreements being deliberated must be guaranteed.

The final peace agreement between the government and the CPP-NPA-NDF which comprises the remaining substantive peace talk agenda inclusive of the socioeconomic reforms, political and constitutional reforms, and the end of hostilities and disposition of forces, shall lead to the significant decrease, if not complete elimination of insurgency particularly in Bicol region. Thus, a positive environment towards the accelerated signing of the Final Peace Agreement between the government and the CPP-NPA-NDF shall be established and maintained to end the armed conflict in the region. The convergence of all key players in the peace process to combat intra-group conflicts shall be pursued incessantly for the effective implementation of peace agreements.

The promotion of the implementation of CLIP of DILG shall be continued and strengthened in support to the successful negotiation of peace agreements with all internal armed conflict groups. The CLIP is a national reintegration program of the national government for the rebel returnees. It is aimed at achieving permanent and peaceful closure of all armed conflict specifically the NPAs in the Bicol region. This program is locally-driven and managed, subject-sensitive and flexible, time-bounded and has a clear exit strategy. Hence, safety and security of returnees shall be ensured and immediate

assistance and livelihood assistance shall be provided. Firearms remuneration, healing and reconciliation initiatives, and other assistance such as capacity building, skills training, provision of shelter and legal assistance, etc., shall be continued. Furthermore, the integration of former combatants shall be addressed by focusing not only on their connection to mainstream society, but their total healing and reconciliation with their communities.

Subsector Outcome 2: Protect and develop communities in conflict-affected and conflict-vulnerable areas

- **Rationalize, coordinate and monitor the delivery and implementation of peace-promoting and catch-up socioeconomic development programs and interventions in conflict areas.** Presence of government activities must be felt in conflict affected barangays, hence, the government shall aggressively push development projects and ensure continuity of good projects. Institutional coordination and stakeholders' collaboration in the implementation of peace agreements, peacebuilding, and development initiatives shall be established down the sub-regional levels. Moreover, an intensified IEC campaign to affected barangays on government programs and project shall be initiated and sustained.

Grounded on an enhanced peace and development framework of the Six-point Peace and Development Agenda, an

enhanced access to socioeconomic development interventions in conflict affected and threatened communities shall be provided. The PAMANA program inclusive of peace-promoting catch-up development projects in conflict-prone communities which are highly important for the sustainment of peace shall be strengthened and continuously implemented. These involve infrastructure projects such as FMRs, water supply and irrigation facilities which shall be continued and expanded as it provides not only employment, but also promote and strengthen community participation.

Community access to socioeconomic programs such as the *Kabuhayan* Starter Kit of DOLE; educational and livelihood programs of DepEd, TESDA, DOST, DTI, and other government agencies shall continue to be provided and sustained. The CMOs services such as medical missions, feeding programs, and other basic services, in partnership with other stakeholders (e.g., LGUs, NGOs, and CSOs) shall be continuously delivered to communities. Improved access to social health services shall be provided. Investment in human capital development through basic, and technical and vocational education shall be prioritized especially for the youth. Other substantial peacekeeping efforts such as the simultaneous conduct of *Bayanihan* Team Activity (BTA) within the guerilla bases and affected barangays programmed for clearing shall be continuously implemented.

A streamlined coordination and monitoring mechanisms shall be

instituted and strengthened to ensure the delivery of socioeconomic projects and investments by donor institutions and government agencies in conflict-affected areas. Social protection packages, community driven development projects, sub-regional development interventions and capacity building for local governments shall be strengthened to further decrease insurgency issues and sustain lasting peace in the region.

- **Empower communities by increasing their capacity to address conflicts and reduce their vulnerabilities.** Building a culture of peace and conflict sensitivity that is tailored-fit to the diverse cultures of societies given their unique traditions and practices shall be ensured. A culture and gender-sensitive approach to development shall be promoted to empower communities. It will significantly reduce their vulnerabilities to peace conflicts. People's awareness of peace and development issues and concerns as well as their direct involvement to peacekeeping activities shall be pursued and sustained. Community organizations shall be created and capacitated which ultimately form part of resolving peace conflicts.

Peace education, value formation and communication shall be intensified and integrated in formal and non-formal educational institutions. The culture of peace and non-violence shall also be promoted in both avenues. Mainstreaming the principles of peace promotion and conflict sensitivity as well as application of the principles within the

various aspects of academic community life shall be pursued.

Communities shall be capacitated to support the establishment and management of appropriate structures and mechanisms. Conflict monitoring system and tools shall be provided and strengthened to aid them in addressing the emergence of conflict. These will lessen, if not prevent, the negative impacts of armed conflict to communities. Participation of peace stakeholders in the peace and order councils, local development councils down the barangay level shall be encouraged.

The declaration of the remaining two provinces, Masbate and Sorsogon, as CMRFD provinces which require a resolution of respective *Sangguniang Panlalawigan*, shall be facilitated. This will be undertaken along with the existing government programs such as CLIP and livelihood programs of government agencies which will contribute to the improvement of the quality of life in the conflict prone areas.

- **Harmonize government efforts to address conflict and security issues.**

The overarching policy, government

initiatives and investments on peace concerns resulting from internal armed conflicts shall be harmonized. Operational coordination efforts through the integration of government mechanisms into the peace process shall be undertaken in addressing humanitarian concerns. These include the protection of rights and promotion of interests of vulnerable groups, i.e., women, children, elderly, IPs, internally displaced persons (IDPs), differently-abled persons, and former combatants.

Police presence and visibility will ensure lasting peace, thus auxiliary forces from the PNP and AFP shall be deployed to patrol the rural barangays to attain zero conflict-affected barangay.

Regional and local peace and order councils, local development councils and other government mechanisms such as DRRM shall be mainstreamed. Local governance shall be improved by building the capacity of national government agencies and LGUs for a conflict-sensitive, peace-promoting, culture-sensitive, and gender-sensitive approach to development.

18 Ensuring Security, Public Order, and Safety

Ensuring Security, Public Order and Safety

Peace and security, as among the top priorities of the current administration, is considered one of the foundations that support the strategies to attain inclusive growth, a high-trust and resilient society and a globally competitive knowledge economy. However, the country encounters various problems on the massive campaign and implementation of its programs. There are increasing number of crimes, human rights violations, physical and sexual abuses, human trafficking, drug abuse and extra judicial killings, among others, that are rampant in our society today. Bicol region, in particular, is not an exception to these overwhelming and alarming reality. As such, the region has to protect its people and ensure their security and safety. A peaceful and secured environment must be sustained to keep tourists and investors coming as they provide jobs for the Bicolanos. A secured and safe place will not just be a destination for many but a home for all.

Assessment and Challenges

The Bicol RDP 2011-2016 ensured that the desired outcome for peace and security would be attained. Supported with the programs, activities, projects through the participation of the stakeholders, the sector achieved positive result as the target set in the Bicol RDP 2011-2016 was achieved. However, a lot more has to be done in order to maintain the momentum and meet the targets and priorities of the Duterte administration, which include the eradication of crimes, corruption, and illegal drugs.

Crime solution efficiency improved by 29 percentage points from 21 percent in 2011 to 50 percent in 2016, surpassing the Bicol RDP 2011-2016 target of 31 percent. The average monthly crime rate decreased

from 66 percent in 2014 to 52 percent in 2016. However, crime volume increased to 38,042 in 2016 from 11,752 in 2011. The increase can be attributed to the inclusion of crimes at the barangay level and traffic related incidents in the reported crimes. This resulted to the increase in jail average congestion rate from 278 percent in 2014 to 396 percent in 2016.

The improvement in crime solution was made possible due to the implementation of several programs and interventions of the PNP which include: Managing Police Operation “*Lambat Sibat*” and the Target Output Policy. The “*Lambat Sibat*” is a deliberate, programmatic, and sustained police operation paired with scientific crime reporting which uses both wide

dragnet¹⁵ and intel-targeted operations to catch small-time criminals and repeat offenders. On the Target Output Policy, unit commanders were given a target output of accomplishment in a given time, otherwise, they will be relieved from their area of assignment. The PNP e-projects were launched that includes Crime Incident Recording System (CIRS); e-Rogues Gallery; and e-Wanted Person Information System (WPIS). The CIRS is used in treating reports of crime incidents and arrest. It sets a standard procedure by which all crime incidents are reported to the police stations and stored electronically in a database system. The system presents a quick, fast, and reliable transmission of crime information from lower police units and offices to the National Headquarters. Complementary to the national initiatives to make police operations successful, the Barangay Information Networks (BINs) was implemented, wherein the PNP was able to recruit about 4,000 informants in 2015 from their respective areas nationwide to serve as “Eyes in the Barangay.” Trainings were also conducted for PNP personnel and other peace and development workers on the laws, programs and projects relative to peace, security, human rights, human trafficking and violence against women and children (VAWC).

In 2016, there were 667 persons arrested for engaging in various illegal fishing activities wherein five fishing vessels, 55 fishing boats, 11 *bancas*, 22 compressors and about 15,000 kilograms of assorted fish were confiscated. About a hundred cases on illegal fishing were filed nationwide.

On the campaign against illegal gambling, 157 operations conducted had resulted in the arrest of 498 persons and confiscation of bet money amounting to Php328 thousand. Around a hundred cases on illegal gambling were filed in various courts in the region. On illegal logging, there were 254 persons arrested for violation of anti-illegal logging policies which resulted to a confiscation of around 55 thousand board feet of assorted good lumbers, 20 thousand flitches of wood, and 556 sacks of charcoal. Apprehended perpetrators or violators, including the pieces of evidence, were turned-over to DENR for proper disposition where 57 cases were filed in courts. On illegal mining activities, there were 13 operations conducted in the provinces of Albay (1); Camarines Norte (11); and Masbate (1), where a total of 58 persons were arrested.

On the operations relative to the campaign against illegal drugs, about 1,400 suspected drug personalities were apprehended in 2016. Of this number, 83 percent were pushers and 17 percent were users including women and children. There were a total of 3,400 grams of *shabu*, 1,003 grams of *marijuana*, and 2,100 sachets of *shabu* confiscated with an estimated value of Php14 million where 1,155 drug-related cases were filed nationwide.

In 2016, 396 percent average congestion rate was noted from the total population of 2,495 inmates in 36 jails in the six provinces. The BJMP encountered delay and problems in the implementation of rehabilitation programs for inmates due

¹⁵ 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)

to lack of appropriate venue for the conduct of rehabilitation activities.

Likewise, the lack of facilities and inadequacy of jail personnel put the welfare and security of the inmates, residents and the personnel themselves at risk. The jail congestion caused the spread of diseases and illness among the inmates. This situation needs attention from the government, to give priority to projects that will address the jail congestion problem in the region.

The number of cases of rape, incest and sexual abuse increased, but a high number of cases remain unreported due to some reasons like economic dependence between the victim and abuser. There were 143 cases of human trafficking

recorded from 2011 to 2015, with 288 victims consisting of 100 males and 188 females where 89 were minors. Since most of the abusers were not made to answer for their actions, the cases continue to increase.

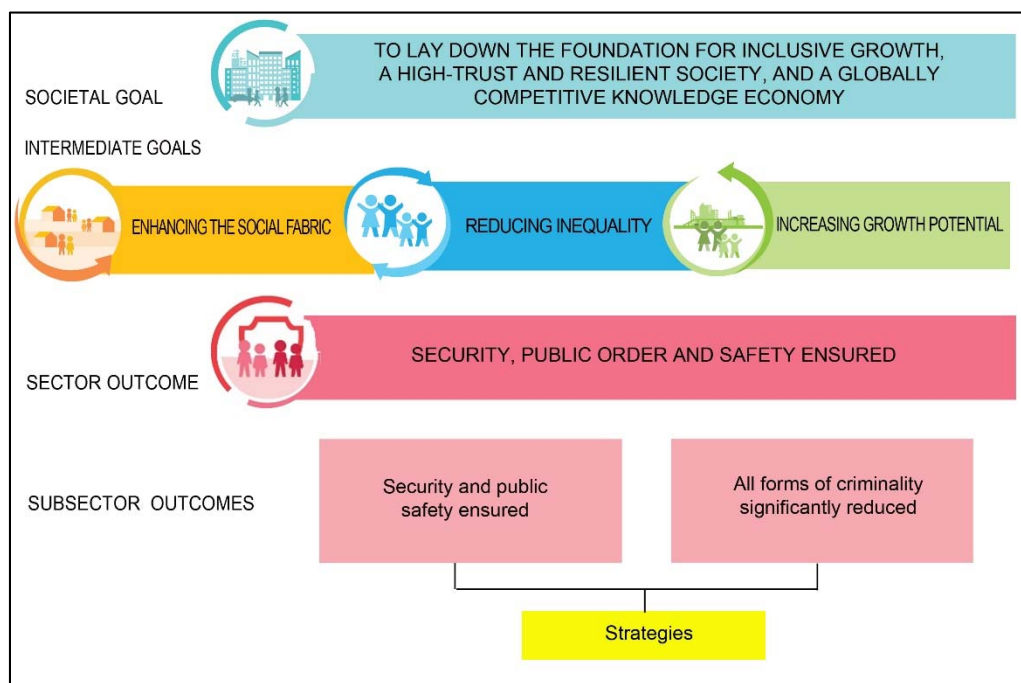
Monitoring of establishments was regularly conducted by the BFP to ensure safety of communities. Out of around 39,465 registered establishments in Business Processing and Licensing Offices in the region in 2015, 100 percent were inspected and been issued with fire safety inspection certificates. A total of 499 fire incidents were recorded in 2015 and been responded to by the BFP. However, only 478 fire incidents had been responded to within the seven-minute standard response time.

Strategic Framework

Ensuring security, public order and safety will contribute to enhancing the social fabric or “*Malasakit*”; reducing inequality or “*Pagbabago*”; and increasing growth potential or “*Patuloy na Pag-unlad*” towards laying down the foundation for inclusive growth, a high-trust and resilient

society, and a globally competitive economy. By 2022, the following subsector outcomes should have been achieved: (a) security and public safety ensured, and (b) all forms of criminality significantly reduced. Figure 18.1 presents the Strategic Framework to Ensure Security, Public Order, and Safety.

Figure 18.1 Strategic Framework to Ensure Security, Public Order and Safety, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Security and public safety ensured

- **Sustained security and public safety.** This will be realized through continuous strengthening of capability among law enforcers, modernization of the armed forces, as well as improvement of diplomatic ties and engagements. When public order is maintained, residents become efficient citizens, dynamic and more productive. They have the freedom to fully enjoy and access the services and
- **Police presence and visibility in all areas of the region shall be intensified to maintain public order.** Barangays shall be involved in policing the communities through the BINs. The AFP and PNP will join force in safeguarding development projects to stop the extortion activities initiated by the CPP-NPA-NDF and LLE. The local peace and order councils shall be reactivated to ensure a venue to discuss

issues on security within the localities. Possibilities of including peace education in formal and informal educational institutions and programs shall be explored. Local development plans which have integrated conflict sensitive and peace promoting approaches shall be implemented. Local policies shall be reviewed to define linkages between and among regional and local peace and order councils. (*Refer to Chapter 17*)

As part of the strategies in strengthening peace and order management, and improving capability of fire protection services and jail management, additional police, fire station and jail buildings shall be constructed with complete and enhanced facilities to cater the needs of the beneficiaries. Fire prevention and fire safety awareness campaign shall be continued through *Ugnayan sa Barangay*. Security sector capability shall be enhanced to provide humanitarian assistance, disaster response, and protect the region against any form of threats to both its people and resources. The BFP shall continue undertaking preventive measures to ensure safety of the populace. Orientations and fire drills shall be continued and shall be made as regular activities conducted in the community for the citizens to be informed, and encourage their participation and involvement in the fire prevention campaign.

Subsector Outcome 2: All forms of criminality significantly reduced.

- **Strict enforcement of laws and ordinances through effective**

collaboration between the LGUs and the local communities. To combat criminality, there shall be strict enforcement of the rules of law. Enforcers must build a culture of peace and conflict sensitivity together with the community. Law enforcement operations shall be intensified and Local Anti-Criminality Action Plans shall be adopted and implemented. The collaboration among Philippine Drug Enforcement Agency and other concerned agencies and LGUs shall be strengthened in the campaign to address the drug problems. Another program to support the strategy is the MASA-MASID program of DILG, a barangay-based, anti-corruption, and anti-illegal drugs program which encourages multi-sectoral partnership to intensify the spirit of volunteerism at the community level. (*Refer to Chapter 5*) In terms of human trafficking, the concerned agencies and entities through the Inter-Agency Council Against Trafficking (IACAT), shall be strengthened to ensure the prosecution of the criminals and the provision of support services to the victims and survivors. Closed-circuit televisions (CCTVs) shall be installed in all establishments, major thoroughfares, seaports, and airports to monitor unlawful and illegal events and make tracking easy.

- **Ensure protection of human rights and promote gender equality.** Programs and projects that will protect human rights and support the victims of crimes and abuses shall be provided, including the rehabilitation of inmates, victims of violence, physical and sexual

abuses, and drug surrenderees. Men shall be encouraged to participate as active partners in the development programs. The institutionalization of Men Opposed to VAW Everywhere (MOVE) in schools, barangays and offices can be a useful tool to reduce the number of sexual and physical abuses. The region shall adopt policies and programs that strengthen cyber security strategies. Every community shall have access to decent and sustainable employment opportunities to improve productivity and lessen economic dependence which is one of the triggering factors that cause violence and abuses among and within families.

Other programs and projects supporting the strategies include: (a) construction of rehabilitation facilities for drug surrenderees; (b) conduct of dialogues/ *pulong-pulong*/ symposium/ house visitations and outreach services to far flung barangays; (c) adoption of region's crime prevention programs to include activation of crime prevention councils; (d) Witness Protection Program; (e) financial assistance under the Bureau of Claims (BOC) to the victims of violence; (f) construction of separate infrastructure facilities for the rehabilitation programs for inmates (e.g., Alternative Learning System room and livelihood area); and (g) utilization of 911 communication services during fire incidents and calamities.

19 Accelerating Infrastructure Development

Accelerating Infrastructure Development

Infrastructure is the backbone of regional development as it supports the sustainable economic and social development of a locality. Bicol's infrastructure development has been on the rise for the last six years. This has been observed by a dominant contribution of construction to the Bicol's Gross Regional Domestic Product (GRDP) starting 2015. However, despite the increase in infrastructure investments, there remains a wide gap in terms of infrastructure access, quality and reliability. Investments in infrastructure projects have to be increased to catch up with the more advanced regions of the country.

Assessment and Challenges

Transportation

The Bicol RDP 2011-2016 aimed for reliable infrastructure facilities and services used by the people through the establishment of an integrated transportation system. The sector partially achieved its objective with the improvement and rehabilitation of roads and bridges, road opening projects, and improvement of air and sea transport facilities. However, the rehabilitation, improvement and expansion of the railway system did not materialize. The physical connectivity of Bicol Region to Metro Manila and the other regions of the country was more felt across the eastern nautical highway link.

Road-based Transport

Roads were improved and rehabilitated. The widening of national roads increased

the surface width from 6.10/6.70 meters to 12.2/13.40 meters. The Bicol section of the Maharlika Highway (AH26), representing 17 percent of the region's national roads (2,385.656 km), was widened to three lanes (15.24 km) and four lanes (72.61 km). The total length of AH 26 that passes through Bicol represents 22 percent of its total length of 1,815 km.

The DOT-DPWH convergence program enhanced access to priority tourist destinations in the different municipalities and cities in the region of which, 80 percent (187.645 km) of the target programs were completed from 2011 to 2015. The Guinobatan-Camalig-Daraga-Legazpi (GUICADALE) platform roads leading to the BIA and tourist destinations were implemented including

road openings in the province of Sorsogon. The Pio Duran (Albay)-Donsol (Sorsogon) road is to be completed under the 2016 budget. This alternative route to Donsol, home of the whale sharks (*Butanding*), supports trade and tourism. Roads that connect to RORO ports in the region such as: (a) Ligao-Pio Duran; (b) Donsol-Pio Duran; (c) Libon-Pantao-Pio Duran; and (d) Jovellar-Pio Duran provided more access to Pio Duran port in Albay. The Masbate-Cataingan-Placer road links the RORO terminal system of Masbate City, Cataingan, and Cawayan that connect to Cebu and Samar provinces. Other strategic road projects implemented during the period were the Catanduanes Circumferential Road, Andaya and GMA Highways, Albay West Coast road, Camarines Sur-Albay diversion road, Pres. Cory Aquino Boulevard, and other road projects implemented by local government units in the region. Road opening projects under the PAMANA were likewise implemented.

From 2011-2016, an average increase of three percent (2,312 km in 2011 and 2,385 km in 2016) in the length of national roads was registered. There were six local roads converted into national roads from 2011-2016. The number of permanent bridges along the national roads increased from 591 in 2011 to 634 in 2015, surpassing the plan target of 612. An addition of 16 newly constructed bridges brings the total to 650. The target increase in road density from 0.61 km/sq. km. in 2010 to 0.70 km/sq km in 2016 was not achieved. The national road density remained at 0.133 km/sq km as of December 2015.

Rail-based Transport

The plan to rehabilitate and improve the railway system did not materialize. At present, the Philippine National Railways has no train service for the Manila-Legazpi route. The Manila-Naga train service had its trial operation in 2011 until October 2012 but was suspended following the derailment accident in Sariaya, Quezon. In 2014, the commuter train service from Naga City to Sipocot, Camarines was opened. In September 2015, the Naga-Legazpi commuter train service was launched. However, the operation was stopped in March 2016 due to breakdown of locomotive. The collapse of a bridge in Ragay, Camarines Sur prohibited the transport of a replacement locomotive coming from Manila. Only the Naga-Sipocot train service operates at present.

The proposed NSRP South Line was endorsed by the Investment Coordinating Committee (ICC) for funding under the PPP. The project involves a total length of 653 kilometers long haul passenger train for Manila-Calamba-Legazpi, Calamba-Batangas, and Legazpi-Matnog in Sorsogon. However, the approval by the Department of Transportation (DOTr) was delayed due to changes in the terms of reference. The railway development summit to push the revival, expansion, and modernization of the railway system did not materialize.

Air Transport

The Legazpi Airport terminal building was renovated and expanded and air

navigation facilities were improved. It served direct chartered flights from Guangzhou and Xiamen, China in 2014. Two nighttime flights for the Legazpi and Manila route started in October 2016. Masbate airport was improved and the feasibility study (FS) for the transfer of Masbate airport to Milagros, Masbate was included in the DOTr FY 2015 Annual Procurement Plan. The New Naga Airport Development Project is ongoing while the implementation of BIA is targeted for completion by 2020.

The Bicol RDP 2011-2016 considered the conversion of underutilized airports to military air bases. However, the Bicol RDC proposed that these be operated as community airports by the LGUs where these are located. The resolution was forwarded to the Civil Aviation Authority of the Philippines (CAAP) for their action.

Water Transport

The passenger terminal buildings (PTB), RORO ramps, berthing areas, causeways and pavements in the ports of Albay, Camarines Sur, Catanduanes, Masbate, and Sorsogon were repaired. The water

transport system improved with the opening of the Batangas-Masbate-Cebu and Cagayan de Oro sea transport route on board the Super Ferry 3. Pio Duran port was opened, including the following RORO routes: Pio Duran-Claveria and Pio Duran-Masbate. The RORO port service from Nato port in Sagnay to Guijalo, Caramoan was opened. The passenger terminal shed of Codon port in San Andres, Catanduanes was constructed in 2015 to cater to passengers plying the Codon-Guijalo route. This was seen as a shorter link to Guijalo and San Vicente ports in Caramoan, Camarines Sur, famous for tourism destinations such as the Caramoan National Park and Gota Beach.

A memorandum of understanding was forged by the PPA together with the PCG, Land Transportation Office (LTO), Land Transportation Franchising and Regulatory Board (LTFRB), PNP, and the LGU of Matnog, Sorsogon to address the congestion at the port of Matnog during abnormal situations like gale warning, storm signals and other calamities wherein sailing is prohibited.

Water Resources

Water Supply

The Bicol RDP 2011-2016 aimed that water facilities would be available for use of the population. The water resources subsector targeted an increase in the coverage of water supply by two percent annually. In 2012, the implementation of

Level 1 and 2 water supply projects under BuB and SALINTUBIG program of DILG provided potable water to unserved households in rural areas of the region. Twelve municipalities in the region were recipients of the SALINTUBIG project. Data in 2014 showed that 87 percent of Bicol households had access to a safe

water supply. Based on the reports from the local water districts in the region, there was an increase in new service connections in 2015 in nine water districts (Table 19.1). In 2016, of the 369,395 identified poor households of

Listahanan, 63 percent have access to safe water. The remaining 37 percent get water from dug well, rain and spring, river or stream.

Table 19.1 Number of Active Water Service Connections, Bicol Region: 2014 and 2015

NAME OF WATER DISTRICT	NUMBER OF ACTIVE SERVICE CONNECTIONS		% CHANGE
	2014	2015	
Legazpi City	21,044	21,841	3.78
Sorsogon City	10,619	11,125	4.76
Iriga City	11,354	11,877	4.60
Tabaco City	11,878		
Virac	6,978	7,239	3.74
Daraga	9,386	9,584	2.10
Gubat	5,851	5,881	0.51
Bato CamSur	1,975		
Camarines Norte	25,358	26,138	3.07
Calabanga	5,310	5,609	5.63
Donsol		1,550	
Ligao City	7,735	7,840	1.36
Naga City	43,810	41,761	(4.68)
Nabua	5,290	4,096	(22.60)
Pasacao	1,705	1,690	(0.88)

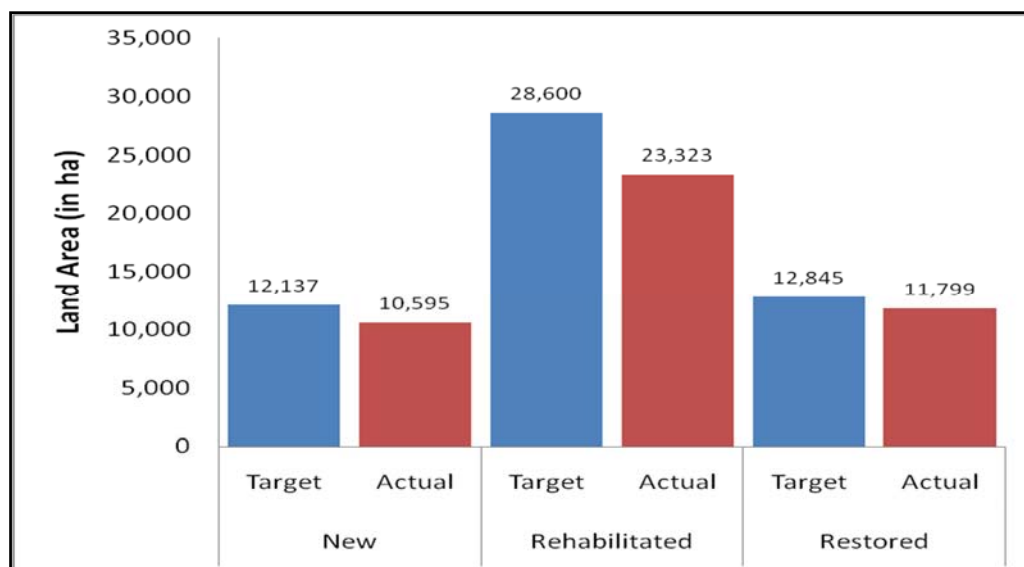
Source: Water Districts/COA Report

Irrigation

The irrigation subsector aimed at providing adequate irrigation facilities to farmers and increasing the number of hectares of irrigated areas. From 2011 to 2016, the NIA targeted a total of 12,137 hectares of new areas to be irrigated;

28,600 hectares to be rehabilitated and 12,845 hectares to be restored with the implementation of various irrigation facilities. However, these targets were not fully attained. Figure 19.1 shows the target and actual accomplishments of NIA by type of intervention from 2011 to 2016.

Figure 19.1 Accomplishments of NIA by Type of Intervention, Bicol Region: 2011-2016



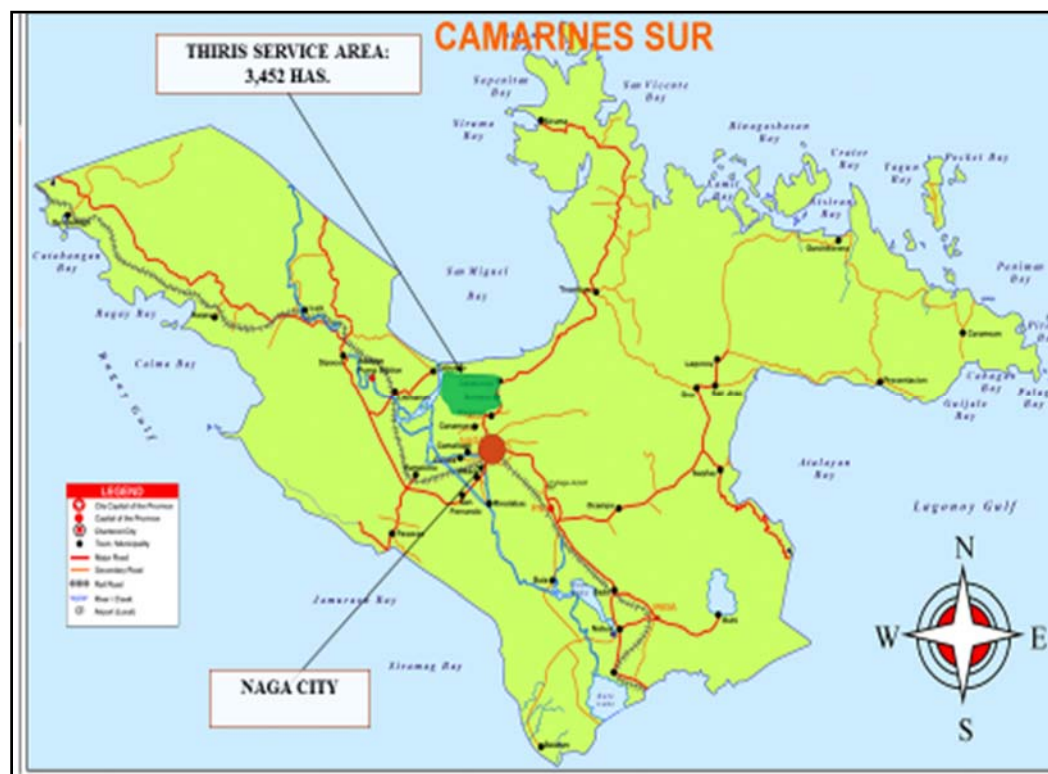
Source: NIA Region 5

In 2016, 10,595 hectares of new areas were generated, marking an 87 percent accomplishment. In terms of rehabilitated areas, it only posted 82 percent accomplishment or 23,323 hectares while 11,799 hectares were restored, translating to 92 percent accomplishment. These interventions benefited 4,688 farmers, and generated 2,822 jobs as of November 15, 2016.

The Participatory Irrigation Development Project (PIDP) which aims to expand participation of irrigator's

association (IAs) while simultaneously strengthening irrigation development and management, and improve irrigation service delivery through rehabilitation and modernization of public irrigation system, was implemented during the plan period. It included the Tigman-Hinagyanan-Inarihan River Irrigation System (THIRIS) in Camarines Sur (Figure 19.2). As of November 30, 2016, its physical accomplishment was 68 percent. The continuous operation of the existing river irrigation system caused delay in the project implementation.

Figure 19.2 THIRIS Service Area, Bicol Region



Source: NIA Region 5

Another major project being implemented is the Ibingan Small Reservoir Irrigation project (SRIP) in Prieto Diaz in Sorsogon. The project aims to increase agricultural production through the provision and improvement of irrigation and infrastructures in the project area. In 2015, construction of access roads, irrigation facilities such as canals, canalization structures and service roads were completed.

The Sibagat SRIP in Minalabac, Camarines Sur is another major project of NIA with a total target area of 350 hecatres and an estimated project cost of Php400 million. The rehabilitation and improvement of the existing irrigation facilities at barangays Magadap and San Jose in Minalabac started in September

2012 while the construction of new facilities in the extension area at Baliuag Nuevo started in June 2016. The construction of the reservoir area and other appurtenant structures will start in 2018. This project aims to increase the agricultural production and provide a year round irrigation water supply to the farmlands of around 165 farmers.

Flood Management

The Flood and Hazard Mitigation component of the Bicol River Basin and Watershed Management Project (BRBWMP) implemented by DPWH aims to control or mitigate flooding within the Bicol river basin area through effective flood control measures and services. Of the 90 projects, 87 were

completed in 2016 which helped in and existing structures from floods reducing losses and damage to properties (Table 19.2).

Table 19.2 BRBWMP Flood and Hazard Mitigation Project, Status of Project Implementation: As of November 2016

YEAR	ALLOCATION (PHP M)	NUMBER OF PROJECTS	STATUS
2007-2010	1,645.00	33	Completed
2011	600.00	11	Completed
2012	350.00	14	Completed
2013	455.00	12	Completed
2014	300.00	7	5 projects completed; 1 project on-going: Quinali-Talisay Diversion Channel Phase 2 – 31% (as of 11/30/2016); 1 project suspended: Quinali-Talisay Diversion Channel Phase 3 due to ROW problem.
2015	530.00	13	12 projects completed and one is negated due to ROW problem.
Total	3,880.00	90	

Source: DPWH

The Legazpi City Urban Drainage Improvement Project (LCUDIP) is another major flood mitigating structure started by the DPWH in 2015. Three projects under the LCUDIP were implemented in 2015 which include the construction of seawall with joggers and vehicle lane (Legazpi Port to Rawis); construction of dike along Ruran, Sagumayon and Macabalo tributaries including Cabangan bridge; and completion of Victory Pumping station including construction of dike. The Tibu

pumping station Phase I was completed in February 2015. The construction or improvement of dikes and jetty structures, seawall, widening of river channel and pumping stations in strategic location will reduce flooding in the city center and residential areas, thereby reducing health risks and boosts economic activities. The construction and completion of this project will benefit Legazpi City and the adjacent municipalities.

Energy

Electrification

The energy subsector aimed to provide sufficient, stable and low cost power to all domestic and industrial users. It targeted a 100 percent barangay energization rate; 49 percent *sitio* energization rate; and a decrease in systems loss of nine percent by the end of the plan period.

Barangay energization rate was 99 percent as of November 2016 with two remaining un-energized barangays in Albay. As of November 2016, the sitio energization attained a 78 percent accomplishment leaving 1,501 sitios to be energized. In terms of connections among households, Bicol has attained a 91 percent connection rate. The Listahanan of DSWD shows that 246,157

of the poor households in 2016 have electricity.

The electric cooperatives in the region have not achieved the desired systems loss of nine percent. The average systems loss as of September 2016 was 16 percent. Albay Electric Cooperative (ALECO), now under the Albay Power and Energy Corporation (APEC) had the highest systems loss at 23 percent while Camarines Norte Electric Cooperative (CANORECO) had the least at 10 percent. The targeted one digit systems loss was not achieved due to the high incidence of electricity pilferage through illegal connections and aging distribution lines, among others.

Table 19.3 Number of Energized Barangays and Systems Loss by Electric Cooperative, Bicol Region: As of November 2016

ELECTRIC COOPERATIVES	NO. OF ENERGIZED BARANGAYS	NO. OF UN-ENERGIZED BARANGAYS	SYSTEMS LOSS (%)
ALECO	718	2	22.50
CANORECO	273	0	10.28
CASURECO I	287	0	11.46
CASURECO II	259	0	13.99
CASURECO III	229	0	19.19
CASURECO IV	258	0	11.37
FICELCO	315	0	13.63
MASELCO	434	0	22.97
SORECO I	253	0	13.26
SORECO II	288	0	18.02
TISELCO	72	0	20.71
TOTAL	3,386	2	

Source: National Electrification Administration (NEA)

Power Generation

The geothermal power generating plants in Bicol continued to contribute electricity to the Luzon Grid. As a geothermal energy supplier to the Luzon Grid, the region is host to two geothermal producing fields, namely: Tiwi and Bacon-Manito (BacMan) geothermal fields which generate a total capacity of 365.5 megawatts that are supplied directly to the Luzon Grid.

The Energy Development Corporation has been rehabilitating the BacMan geothermal power plants to increase its generating capacity so it can contribute more to the power supply needs of the Luzon Grid. The Tiwi geothermal power plant (TGPP) is operated by the Philippine Geothermal Production Company. The cumulative gross generation of TGPP was recorded at 48,192 GWH.

Information and Communications Technology

The communications subsector aimed to provide effective and efficient communication facilities and services that are universally accessible, interconnected and affordable. The communications subsector targeted the increase in the number of LGUs with internet access, telephone density for both mobile and landline, and the number of cellular sites.

On June 23, 2011, Telecommunications Office was renamed as Information and Communications Technology Office (ICTO) and was put under the control and supervision of the Department of Science and Technology (DOST). It was rationalized in June 2013 and underwent transition period until end of 2014. On May 23, 2016, the Department of Information, Communication and Technology (DICT) was created and ICTO is its core agency.

Internet Services

Two programs have significant contributions in the region. Juan Konek

project is a free wifi internet access in public places with 559 target beneficiary sites in Bicol including parks, town halls, seaports, high schools, and rural health units. This project was officially launched with the signing of MOAs between Local Chief Executives and DICT. To date, two free wifi sites located in DICT Legazpi and Legazpi City Convention Center are operational. Another project is the Tech4Ed Centers which are self-sustaining shared facilities that provide access to ICT-enabled services and relevant content. It also serves as conduit for efficient delivery of government services. Thirty-three centers were established in partnership with the LGUs and school heads.

The implementation of GovNet project of DICT started in June 2016. The project aims to provide the national government agencies with faster internet connection. There were 32 government agencies (DPWH, DepEd, TESDA, DICT, DOST, LTO, NAVFORSOL, CSC, NEDA, LTFRB, COA, DENR, EMB, Albay PENRO, NAPOLCOM, NFA, PCIC,

Bureau of Plant Industry, PCG, PRC, NTC, NBI (Legazpi), BOC, Bureau of Treasury, BFP-Albay, DTI, MARINA, DOJ, DBM, Human Rights Commission, COMELEC and DAR) that benefited from the fiber optic internet connections.

Mobile Telephone Services

The patronage of telephone and telegraph services decreased with the proliferation of cellular phones and the entry of

internet service providers. As of December 2015, 799 cellular sites were installed throughout the region, representing an increase of 59 percent from 503 cell sites in 2012. These were provided by three service providers, namely: Smart, Globe and Suncellular. The bulk of the cellular phone users in the region avails of Smart service provider. Table 19.4 and Figure 19.3 show the distribution of service providers by province in 2015.

Figure 19.3 Map of Cell Site Locations in the Bicol Region

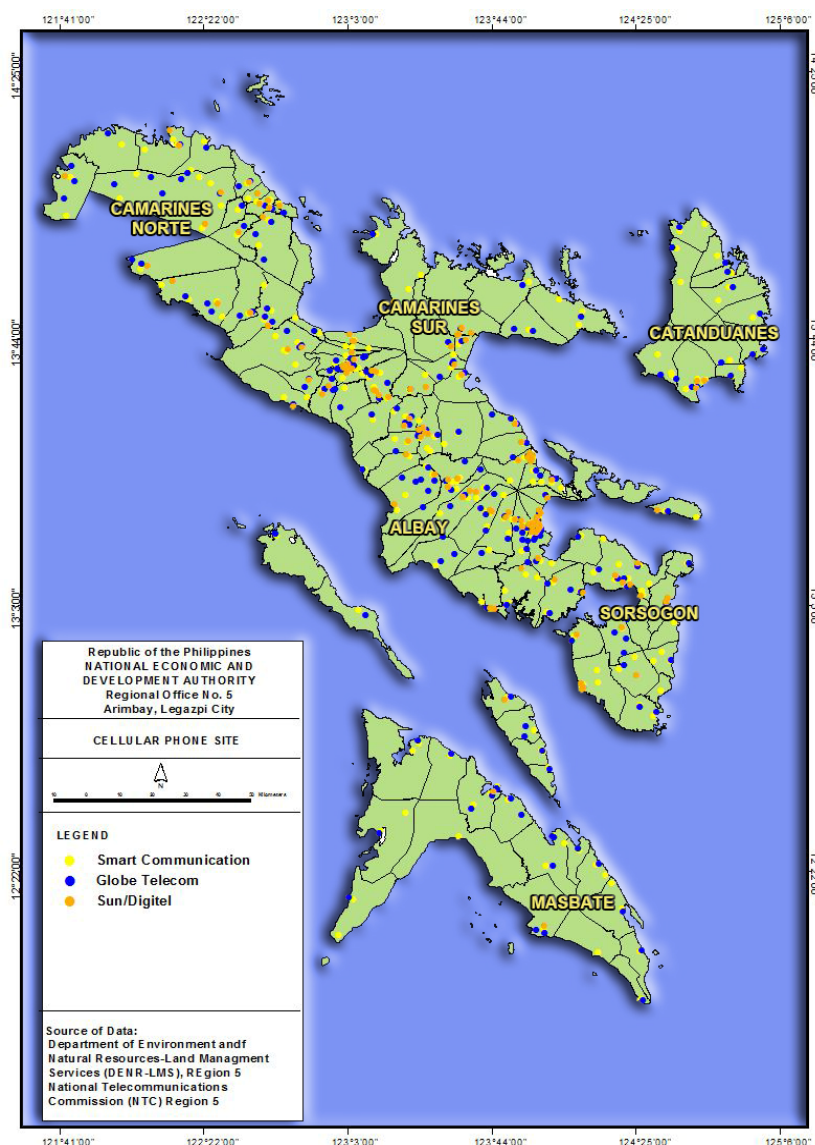


Table 19.4 Existing Cell Sites per Service Provider, Bicol Region: 2015

PROVINCE	SERVICE PROVIDERS			TOTAL
	GLOBE	SMART	SUN CELLULAR	
Albay	70	111	43	224
Camarines Norte	28	45	12	85
Camarines Sur	83	141	48	272
Catanduanes	16	24	1	41
Masbate	34	47	3	84
Sorsogon	26	63	4	93
TOTAL	257	431	111	799

Source: National Telecommunications Commission (NTC)

Landline Telephone Services

Despite the proliferation of cellular phones, there still exist telephone operating companies which include:

Southern Telecommunications Company, Inc., BTI Inc., Bayan telecommunications, Inc., Digitel Communications, LM United, Iriga Telephone Company, PILTEL, North Camarines Telephone Company, Labo Telephone System, and Santos Telephone System.

Radio Telecommunication Services

Activities relative to the communications subsector were conducted to attain the desired outcome of providing effective and efficient telecommunication services to the population. These included one-day mobile licensing seminars in different cities and provinces in the region and Restricted Land Mobile Radio Seminars. Regular radio operators'

examinations in Legazpi City and Daet, Camarines Norte, and one special radio operators' examination in Masbate City were also conducted.

Trainings on the blocking of lost and stolen cellular phones and tape preservation of unwanted broadcast airings were also conducted. Other activities include the intensification of information education campaign on text scams and press conferences to broadcast stations, local CATV operators, information officers of LGUs, RLAs and student councils of SUCs.

The number of licenses, permits and certificates that were issued, increased by 30 percent from 15,208 in 2014 to 19,717 in 2015. The number of issuances in 2015 was 212 percent over the target of 9,280. The number of inspections (validation or investigation) of radio stations was 4,205, surpassing the annual target of 3,590 by 117 percent.

Postal Communications

Postal communications experienced financial difficulty and viability skepticism in 2011 considering the technological advancement. It is for this reason that the re-engineering of the postal system was proposed. In 2012,

PhilPost offered upgraded premium postal services and 3-pouch which resulted to fast, safe and prompt mail delivery services. The services were focused on rural areas that are not covered by private providers.

Social Infrastructure

Education

The DepEd intensified its campaign to enroll all school-age children to achieve universal participation through the implementation of the K to 12 program, thus, requiring additional classrooms to accommodate incoming learners. In the implementation of Senior High School (SHS) program, the number of classroom allocation was increased from 2,102 in 2013 to 3,095 in 2014. In 2015, the Basic Education Facilities Fund (BEFF) allocated 2,566 classroom projects, of which, 236 were completed, 1,765 are ongoing, and 565 have not yet started. The increasing number of school population would likely lead to the problem of shortage of classrooms. Repair and maintenance of existing classrooms damaged by tropical cyclones that hit the region, and the use of public schools as temporary shelters for those affected by disasters further pose as a challenge in improving the quality of education of Bicolanos.

Health

Report from the National Health Facility Registry (NHFR) of the DOH shows that there are 1,525 health facilities in the

region as presented in Table 19.5. More than three-fourths are barangay health stations (BHS). The BHS is a community-based and patient-directed facility that provides primary health care. Its goal is to provide first aid, maternal and child health care, diagnosis of social diseases, health education and other basic health services to all the members of the community it is serving. The second health facility in terms of number is the rural health unit (RHU). The RHU is the primary government health care facility at the municipal level wherein health services are delivered. The Rural Health Act of 1954 provided for the establishment of a rural health unit in every municipality, and appropriated funds for the purpose. Two categories of rural health units, senior and junior, came into being. The senior unit was similar to the demonstration team above; the junior consisted of doctor or nurse and sanitary inspector or midwife. A rural dental service was also established. The DOH imposed a no home birthing policy in August 2015. This resulted to an increase in birthing homes and lying-in-clinics. There are 119 birthing homes in the region that help prevent maternal and newborn mortality. There are 24 government hospitals and 41 private

hospitals that provide health care services in the region.

Table 19.5 Number of Health Facilities in the Bicol Region

PROVINCE	BHS	RHU	INFIR-MARY	BIRTHING HOMES	GOV'T. HOSPITALS	PRIVATE HOSPITALS	TOTAL
Albay	207	18	17	39	5	15	301
Cam. Norte	119	17	6	20	2	5	169
Cam. Sur	343	48	15	35	6	12	459
Catanduanes	63	11	5	6	4	1	90
Masbate	225	22	10	1	2	5	265
Sorsogon	189	18	8	18	5	3	241
Total	1146	134	61	119	24	41	1525

Source: DOH

Housing

The HUDCC reported an increase in the number of families allocated with socialized housing through the implementation of resettlement projects, CMP, housing projects for uniformed personnel, settlements upgrading, and HOMA to households affected by disasters. From 2011 to 2015, a total of 21,561 families were provided with socialized housing.

From 2010 to 2016, a total of 29 resettlement sites were developed in 19 municipalities and three cities in the region. Aside from land title requirements, the implementation of resettlement projects have not been successful in providing employment, livelihood opportunities, and adequate services to many settlers. The CMP of the Social Housing Finance Corporation (SHFC) implemented eight projects valued at Php42.09 million, benefiting 910 families during the plan period. As of 2015, a total of 1,325 housing units were completed under the AFP/PNP Housing Project for military and police personnel. Settlements upgrading during the plan period benefited a total of 695

families. The HOMA program for disaster survivors benefited a total of 11,480 families. A total of 16,615 core shelter units were completed by the DSWD. Housing loans were made available for Pag-IBIG members amounting to Php3.173 billion for the construction of 5,462 housing units.

The affordability of and access to government housing programs by the poor remain a major challenge in the future. The 2015 *Listahanan* assessment reported that about 626,483 poor households live in housing units with roofs and walls made of light or salvaged materials and without electricity.

To address the housing needs, titling of lands identified for socialized housing shall be fast tracked. Government requirements and processes in delivery of housing programs shall be harmonized. Subsidies and grants to lower down payments and cost of titling and installation of infrastructure services onsite shall be provided. Basic infrastructure support to resettlement sites such as potable water, reliable power supply, access roads to nearest

commercial centers, and ICT, among others, shall be provided.

Solid Waste Management

The total solid waste generation in the Bicol region has been increasing in the last five years, from 1,879 MT per day in 2012 to 2,012 MT per day in 2016. Increasing population and consumption have resulted in increased waste generation, thus, exacerbate the problems of inefficient collection and inadequate disposal facilities. These emphasize the

need to ensure proper management of solid wastes in the region through the full implementation of the provisions in R.A. 9003 or the Ecological Solid Waste Management Act (ESWMA) of 2000 and the other identified strategies for the solid waste management (SWM) sector.

Bicol has only one operational sanitary landfill and one with ongoing construction (Table 19.6). These are located in Legazpi City and Bato, Camarines Sur, respectively.

Table 19.6 List of LGUs with Sanitary Landfill, Bicol Region: As of December 2016

DUMPSITE TYPE	PROVINCE	LGU NAME	LOCATION	DUMPSITE STATUS
Sanitary Landfill	Albay	Legazpi City	Brgy. Banquerohan	Operating
Sanitary Landfill	Camarines Sur	Bato	Brgy. Agos	SLF w/ ECC; Undergoing Construction

Source: National Solid Waste Management Commission (NSCMC)

Table 19.7 shows that there are 20 LGUs with controlled disposal facilities (CDF), ten of which have safe closure and rehabilitation plans (SCRCP).

Table 19.7 Number of Controlled Disposal Facilities, Bicol Region

PROVINCE	TYPE		STATUS
	CONTROLLED DISPOSAL FACILITY	CONTROLLED DISPOSAL FACILITY WITH SCRCP	
Albay		1	Operational
Camarines Sur	1	7	Operational
Sorsogon	2	2	Operational
Catanduanes	3		Operational
Masbate	4		Operational
TOTAL	10	10	

Source: NSCMC

In Table 19.8, it can be gleaned that there are 54 LGUs with open dump sites, 24 of them have safe closure and rehabilitation plans. Across the region, there are 411 functional materials recovery facilities

(MRF) with Masbate having the least number. Shown in Table 19.9 are the municipalities with solid waste management plans. Only 43 municipalities have conditionally

approved Solid Waste Management Plan, revision.
25 are still for evaluation, and five are for

Table 19.8 Number of Open Dumpsites, Bicol Region, as of December 2016.

PROVINCE	OPEN DUMPSITE		OPEN DUMPSITE WITH SCRP		MRFS	
	Operating	Partially Closed	Operating	Partially Closed	Functioning	Not Functioning
Albay	3	1	6	1	67	1
Cam. Norte	1		3	1	17	
Cam. Sur	9		3		194	
Catanduanes	3	1	2		14	
Masbate	8	1	3		8	
Sorsogon	3		5		111	
TOTAL	27	3	22	2	411	1

Source: NSCMC

Table 19.9 Number of LGUs with 10-Year Solid Waste Management Plans, Bicol Region, as of December 2016

PROVINCE	STATUS			
	APPROVED	CONDITIONALLY APPROVED	FOR EVALUATION	FOR LGU REVISION
Albay	-	10	5	1
Camarines Norte	-	3	2	
Camarines Sur	-	13	14	2
Catanduanes	-	1	1	
Masbate	-	4	2	2
Sorsogon	-	12	1	
TOTAL	-	43	25	5

Source: NSCMC

The goal of an integrated transport system remains to be a great challenge in the region. An integrated transport system provides an efficient flow of commodities, supplies and access to tourism areas and various economic and industrial zones. The NSRP will increase the level of services of transport systems. Other infrastructure that will support economic activities and provide basic services are as follows: (a) roads linking to national roads; (b) roads leading to

seaports and airports; (c) bridges that will link the Bicol Peninsula to Catanduanes and Samar Island; and (d) construction of resilient and adaptive infrastructure.

Other challenges include:

1. Absence of masterplan for most infrastructure projects. These projects are not ready for implementation as there are no

thorough sub-soil exploration analyses and detailed engineering designs, among other requirements.

2. Right-of-way issues and delays in procurement and in securing numerous permits from relevant government agencies. These concerns have hindered the timely implementation of infrastructure projects.
3. Lack of alternative transportation routes and ineffective traffic enforcement. This problem leads to more traffic congestions particularly in urban areas, around public markets, and transit terminals. The public transport is dominated by jeepneys, utility vans (UV express), tricycles, and motorcycles providing door-to-door services.
4. Lack of public transport terminals that integrate the different modes of public transport. The resolution of this transport problem can help reduce logistical costs and improve economic productivity of urban centers.
5. Lack of transport infrastructures to improve connectivity between urban centers and growth hubs. This connection will ensure efficient flow of commodities and inputs to tourism and agricultural production areas, and economic zones.
6. Lack of inter-regional flights to improve air connectivity. Some airports have poor terminal facilities and limited air transport capacity.
7. Lack of infrastructure support for agricultural production and distribution such as insufficient and poor farm to market roads and bridges.
8. The railroad tracks are not yet fully rehabilitated. The rail transport provides the cheapest means of transportation especially for farmers who bring goods to central terminals and markets. The Bicol Commuter Train operates with only two routes: from Legazpi to Naga and vice versa, and from Naga to Sipocot and vice versa.
9. Proliferation of informal settlers along road shoulders, river embankments, and railroad tracks.
10. Lack of real competition/presence of duopoly in the telecommunications industry.

Strategic framework

Providing reliable and resilient infrastructure facilities and services used by the population will contribute to enhancing the social fabric or “*Malasakit*”; reducing inequality or

“*Pagbabago*”; and increasing growth potential or “*Patuloy na Pag-unlad*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally

competitive economy. By 2022, the following subsector outcomes should have been achieved: (a) modern, seamless and efficient transportation facilities and services; (b) water security, and lives and property protected from floods; (c) sufficient, stable and affordable power supply; (d) effective, efficient,

interconnected affordable communication facilities and services; and (e) adequate, safe, accessible and cost effective social infrastructure facilities and services. Figure 19.3 presents the Strategic Framework to Accelerate Infrastructure Development.

Targets

Transportation

The Bicol RDP 2017-2022 targets to increase road density in the Bicol region from 0.61 kilometer of road per square kilometer of land to one kilometer of road per square kilometer of land area. By the end of the plan period, all bridges in the region are converted into permanent bridges. The railway system from Legazpi City to Metro-Manila and the Bicol International Airport (New Legazpi Airport) are fully operational by the year 2022.

Water Resources

The Bicol RDP 2017-2022 targets 95 percent of households having access to safe water supply by 2022 or an average increase of one percent annually from 87 percent level in 2014. It targets to increase the irrigation service area from 75,552 hectares in 2016 to 93,665 hectares by the year 2022.

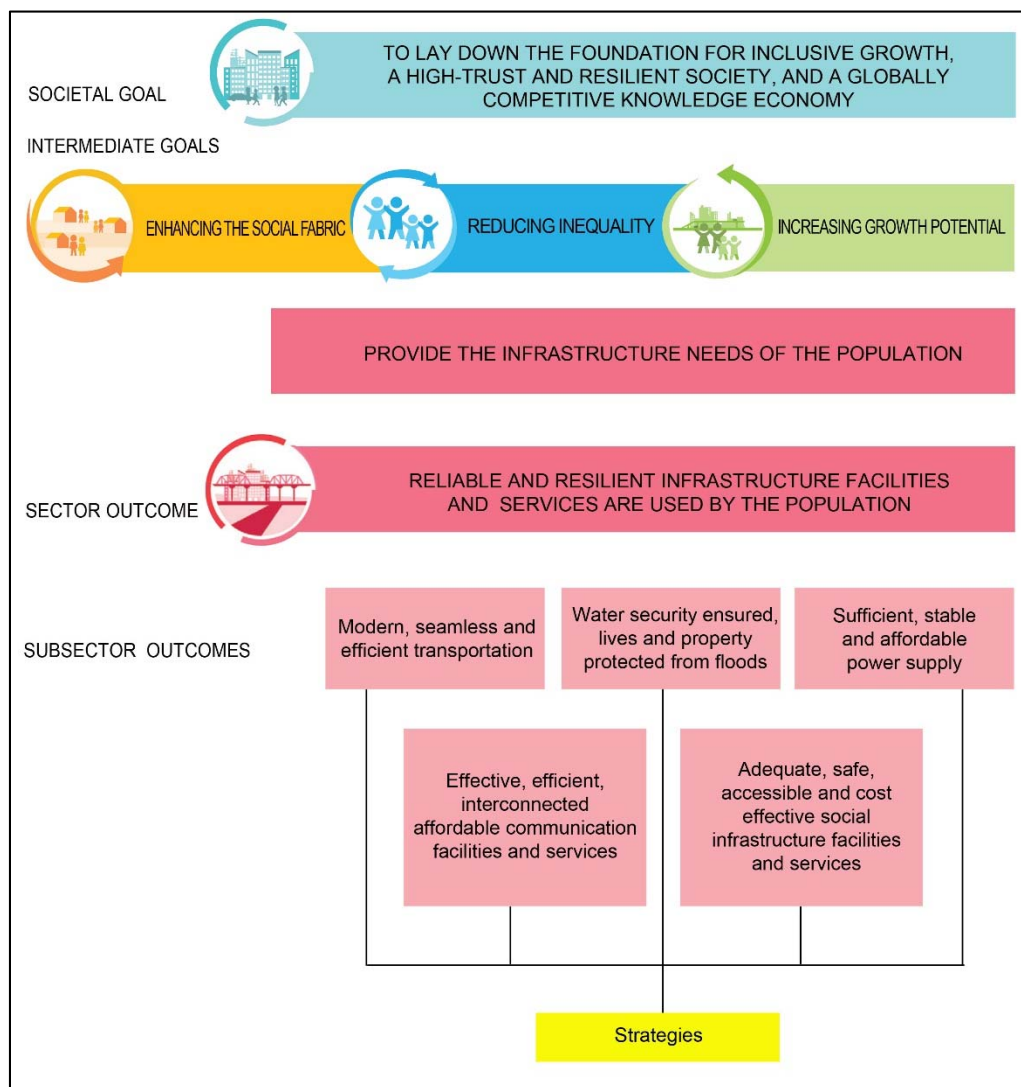
Power and Electrification

The Bicol RDP 2017-2022 targets a 100 percent barangay energization rate by the end of the plan period from the 99 percent energization rate in 2016. It targets to increase energization of sitios from 78 percent in 2016 to 100 percent by 2022, and household connection rate of potential households from 91 percent in 2016 to 100 percent by the end of 2022. Systems loss is targeted to be reduced from 16 percent in 2016 to nine percent in 2022.

Social Infrastructure

The Bicol RDP 2017-2022 targets to attain a classroom to pupil ratio of 1:40. It targets to have at least one barangay health station in every barangay by 2022

Figure 19.4 Strategic Framework to Accelerate Infrastructure Development, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1: Modern, seamless and efficient transportation achieved

- **Improve connectivity by enhancing quality transport infrastructure.** The growth centers shall be connected by road, rail, air, and sea transport. Quality of road network shall continue to be enhanced at the regional level by adopting national road standard for all types of roads. To reap the full benefits of the road

projects, diversion roads and missing road links shall be constructed (e.g., Bacon-Manito Road), and Quirino/Andaya Highway shall be converted into a toll road. Camarines Sur and Catanduanes, and Sorsogon and Samar Island shall be connected with inter-island bridges. The train service will provide mass transport and lessen transport cost for passenger and cargo to and from Manila. The Bicol region shall be the backbone of land transport system to Visayas and Mindanao through the PNR mainline south and Maharlika Highway. The NSRP, including spur lines to Daet and Partido Area, shall be pursued. The PNR mainline south up to Matnog, Sorsogon shall be revived and operational to de-load and decongest the national highway. Airports shall be upgraded to international standards catering to international and domestic flights such as the completion and operationalization of the BIA and upgrading of existing airports in Naga City, Daet, and Virac. Seaports shall be upgraded to international standards and RORO port PTBs shall be modernized for easy and comfortable travels.

- **Improve efficiency of transportation services.** Front line services in the land transport sector shall be improved such as online vehicle licensing and registration. The PNR shall lease the lots located within the train stations to the LGU or private sector for the construction of shopping centers with free wifi, restaurants, amusement areas, hotel accommodations and other passenger

support services. Food terminals or “bagsakan” markets shall be established near or within PNR train stations to facilitate transport of agricultural and industrial goods. Food courts, adequate clean restrooms for women, children, and differently-abled persons shall be provided. Sea vessels shall provide facilities for differently-abled persons and senior citizens and ensure easy access to life jackets. Use of motorcycle “habal-habal” as a means of transportation in rural areas shall likewise be regulated.

- **Continue and expand convergence programs on tourism, agricultural, and industrial development.** Provision of infrastructure support is critical to facilitate growth in agriculture, industry, and services sectors and delivery of social services. Backbone, lateral, and strategic all-access roads will facilitate access and circulation between and among the different provincial, and town centers. Tourism-related infrastructure facilities shall be put in place to serve tourist destinations in the region. Dependable transport access to major and strategic tourism destinations and production areas shall be facilitated in coordination with LGUs. Convergence programs shall provide access to develop more tourism areas. The PAMANA program shall be expanded to other conflict-affected areas. Resilient FMRs shall be constructed to provide access to markets and basic services.
- **Increase redundancy of transportation routes.** Redundancy of transportation

routes shall be increased to reduce vulnerability during emergency situations. Where infrastructure and transportation routes cannot avoid passing through a hazard-prone area or protected area, alternative routes through an alignment that is not subject to the same threat shall be built. Ideally, all major regional and provincial routes should have such redundancy.

Subsector Outcome 2: Water security ensured, lives and property protected from floods

- **Establish database for the development of new water supply sources.** This can be done by collecting detailed water data and information particularly on groundwater and aquifer systems since there is always a lack of adequate surface water resources. Increased funding and resources need to be provided for the collection of detailed water data and information. This database will serve as basis to facilitate the development of new water supply sources.
- **Prioritize surface water for water-critical areas using eco-efficient water infrastructure designs.** Rainwater collectors shall be encouraged and constructed in water-critical areas like upland. The rain water collected is an additional water source which can be used for domestic, agricultural development, and terrestrial ecosystems.
- **Provide subsidy for wastewater treatment projects.** The LGUs cannot solely implement wastewater treatment projects due to high development cost. Thus, support from the national government or the private sector is needed to successfully implement the projects. These wastewater treatment facilities will remove contaminants from waste water to make it usable again.
- **Provide access to water supply to poor households.** The LGUs shall identify possible sources of potable water supply and seek funding from concerned agencies (e.g., DILG, DPWH) for the installation of the facilities so that it will benefit the poor households especially in rural areas. Usually, Levels 1 and 2 water supply systems are provided to rural areas and hinterland barangays.
- **Introduce volumetric and raw water pricing.** The purpose of volumetric pricing of water is to encourage resource conservation and productive use. It is used as a means of water saving in irrigation systems to promote equity in the use of irrigation water among farmers and to rationalize rate of payment of Irrigation Service Fee (ISF). Farmers are obliged to conserve water since additional demand for water will entail additional cost on their part. At the household level, water pricing can be an effective tool for residential water demand management. Charging according to the quantity of water use will motivate consumers

to conserve water by reducing demand.

friendly and reliable power services at affordable rates.

- **Protect and maintain watershed areas to ensure sufficient water supply for domestic use.** Deforestation in watershed areas shall be prohibited. Concerned agencies (e.g., DENR) and LGUs shall monitor these areas against illegal logging. Relatedly, reforestation activities like tree planting shall be encouraged in denuded watershed areas. (*Refer to Chapter 20*)
- **Support and strengthen the participation of local communities in improving water and sanitation management.** Concerned agencies, in partnership with LGUs, shall provide trainings to local communities on how to manage water and sanitation facilities. Involvement of the community in the implementation of these projects is necessary to ensure sustainability.
- **Encourage investment in clean power generation.** The region shall retain its role as geothermal energy supplier to the Luzon Grid. Investments in waste-to-energy and other renewable energy projects shall be encouraged to provide environment-friendly power supply, at the same time, make the service sufficient and reliable at affordable rate. New energy sources (e.g., geothermal, hydro, wind, solar, biomass) shall be explored, and constructed or commissioned for more efficient and lower power cost.
- **Reduce electricity rates.** Reducing electricity rates can be done by pursuing capacity additions to the existing geothermal plants. Removal of value added tax on systems loss charges shall also be done. In the case of island provinces, the grids of Masbate and Catanduanes shall be interconnected to the Luzon Grid for a more reliable and affordable electricity rates.

Subsector Outcome 3: Sufficient, stable, affordable and environment-friendly power supply achieved

The Bicol region aims to be energy sufficient, served through the presence of other indigenous (biomass) and alternative energy sources that can supply excess power to its neighboring regions. All households shall be energized while enjoying the benefits of being host to the geothermal energy resources. *Bicolanos* shall be provided with environment-

Subsector Outcome 4: Effective, efficient, interconnected affordable communication facilities and services achieved

The ICT sector shall ensure transparency and efficiency in government and private sector transactions. Delivery of government frontline services shall be improved. All LGUs and households shall have access to reliable internet services.

- **Formulate and implement ICT master plans and roadmaps.** The government shall further encourage private sector participation in the development and implementation of ICT projects pursuant to BOT Law. This can be achieved by strengthening the NTC and making us of ICTs to drive regional development efforts with innovative solutions that are effective and easily scalable. Re-engineering of the postal system is also a must for fast mail delivery not covered by the private internet service providers. Proposals on the upgrading of landline telephone services and radio telecommunication services shall be done to meet the development challenges.
- **Implement Cyber-Security Plan system.** Cyberspace resides in ICT system infrastructures of Internet Service Providers (ISPs), gateways, independent networks and telecommunications wherein information are exploited and manipulated. Hence, it is proposed that a policy requiring the registration of Subscriber Identity Module (SIM) cards shall be formulated to minimize cybercrimes and frauds. The anti-cybercrime unit of the government shall be capacitated to address cyber threats and manage cyber risks. Protective capability program shall be implemented to address consumer protection including consumer safety, consumer education, remedy and redress in case of fraud and cyber-attacks. Trainings on the blocking of lost and stolen cellular phones and tape preservation of unwanted broadcast airings shall also be conducted. Other activities include the intensification of IEC campaign on text scams and press conferences to broadcast stations, local CATV operators, information officers of LGUs, RLAs and student councils of SUCs.
- **Intensify interconnectivity among government offices.** Administrative Order No. 332 directs all government agencies and instrumentalities including LGUs to undertake electronic interconnection through the internet to be known as IT for government in the Philippines (RPWEB). The internet will be used to provide government services to the public. The government shall further encourage private sector participation in the development and implementation of ICT projects under the BOT Law. The LGUs shall coordinate with the DICT to develop their local ICT capacities.
- **Provide access to internet in public areas.** With the regional disparity in terms of broadband access, the national and local government shall work together to develop ICT and establish a free internet service that is accessible in government offices and public areas using the most cost-effective telecommunications technology.
- **Expand internet coverage and increase cell sites.** The accessibility of ICT services and facilities shall be ensured by expanding internet coverage and installation of additional

cell sites in areas where signal is poor or totally absent.

Subsector Outcome 5: Adequate, safe, accessible and cost effective social infrastructure facilities and services.

- **Facilitate program/project financing of social infrastructure facilities and services.** Adequate education facilities are necessary for quality education. Focus shall be given to sustain the DepEd school building program through the BEFF and other funding sources to address the construction of and upgrading classrooms especially in far flung barangays. Gender-sensitive and disaster-resilient classrooms shall be constructed. Rehabilitation or reconstruction of damaged school buildings shall be fast-tracked to avoid prolong disruption of classes. Financial support for dilapidated or unusable school buildings damaged by disasters shall be provided.

The Philippine Health Facility Development Plan shall be expanded to upgrade health facilities in the region for improved access and quality of health facilities. The fund utilization for health facilities shall be rationalized. Project implementation shall be improved by entering into PPPs in the construction, rehabilitation, maintenance, and management of health facilities. Labor-intensive method in implementing health infrastructure projects shall be encouraged to generate employment in beneficiary communities.

Access to affordable and adequate shelter shall be expanded through implementation of resettlement projects, community mortgage program, housing projects for uniformed personnel, settlements upgrading, and provision of HOMA. Focus is to facilitate the implementation of housing programs and projects by using government idle lands for socialized housing projects, accelerate and streamline the approval process for housing permits and licenses, and titling of lands identified for socialized housing shall be fast tracked. Government requirements and processes in delivery of housing programs shall be harmonized. Basic infrastructure support to resettlement sites such as provision of potable water, safe and sufficient electricity, access roads to nearest commercial centers, and ICT, among others, shall be integrated.

- **Ensure suitable and sustainable solid waste management.** To improve proper management of solid waste, RA 9003, otherwise known as the Ecological Solid Waste Management Act of 2000 shall be enforced in every province, city and municipality. The LGUs' investment in waste management shall be increased by encouraging them to cluster and build common ecological solid waste management facilities (sanitary landfills). Massive IEC campaigns on solid waste management policies, laws, projects and best practices shall be conducted. Waste generation shall be reduced through prevention, reduction, recycling and reuse. *(Refer to Chapter 20)*

- **Construct disaster-resilient infrastructure facilities.** Disaster resilient infrastructure facilities shall be constructed following the appropriate standards for school buildings, health facilities, and housing. The “build back better” principle in all infrastructure projects that have been damaged by disasters shall be adopted. The LCUID Project shall be completed to mitigate flooding in the city center and residential areas. (*Refer to Chapter 20*)
- Formulate/update and implement critical master plans or roadmaps that support connectivity to spur development across the country.
- Improve capacities of implementing agencies in project development and management, including project preparation, ROW acquisition planning, and asset management.
- Implement infrastructure projects with community participation so that the people will have a sense of ownership of infrastructure projects in their locality.

Other strategies that will help attain the sector outcome of providing reliable and resilient infrastructure facilities and services used by the population are the following:

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and intra-regional infrastructure, to support economic development and human well-being, with focus on affordable and equitable access for all.
- Close the infrastructure gap particularly in far-flung areas to ensure equitable access to infrastructure services, even out social opportunities, and raise the overall living standards of Bicolanos.
- Ensure proper and coordinated planning and implementation of infrastructure projects; from planning, programming, and design to implementation stage.
- Promote clustering of LGUs to make them more capable of fund sourcing and implementation of big infrastructure projects. This strategy could ensure effective coordination among towns and cities, avoid duplication of programs and projects, and speed up delivery of public and private sector services.
- Adopt a 24/7 work schedule for major infrastructure projects to fast track completion and thereby minimize long term public inconvenience.

20 Ensuring Ecological Integrity, Clean and Healthy Environment

Ensuring Ecological Integrity, Clean and Healthy Environment

The environment and natural resources (ENR) play a vital role in the development process of the region. All the essential components (land, water, air, flora, and fauna) necessary for our survival are provided by the ENR sector. In the recent years, however, our quest for economic development puts our ENR into a looming peril due to the increasing and conflicting demands of the population. Likewise, our pursuit towards sustainable development is constantly being challenged by disasters which affect the environment and living conditions of Bicolanos. The existing natural and human-induced hazards and the region's vulnerabilities expose Bicolanos to higher degree of disaster risks.

Acknowledging that improved environmental condition, and resilient ecosystem and communities are critical to achieve our societal goal, the Bicol RDP 2017-2022 identifies more aggressive strategies towards the rehabilitation and restoration of degraded natural resources, protection of the ecosystems, and improving the welfare and adaptive capacities of the resource-dependent communities.

Assessment and Challenges

Forest management improved but needs to be further strengthened. The forest cover of the region was measured at 202,445 hectares¹⁶ in 2010. The target is to increase this by 250,000 hectares in 2016. With the implementation of the National Greening Program (NGP), massive reforestation and tree planting activities were conducted since 2011. Within the span of five years, about 51 million various species of seedlings were planted in around 89 thousand hectares in all coverage areas in the region with an average survival rate of 79 percent.

Additional 5,007 hectares of land were also planted with trees through the implementation of Barangay Forest Program, PAMANA, and the *Balik Probinsya* Program. The hindrances encountered in the implementation of these projects were inaccessibility of some plantation sites, occurrence of calamities, erratic weather condition, and lack of manpower to care and maintain the planted seedlings.

Other regular programs, projects and activities such as land surveys, foreshore

¹⁶ Based on 2015 Philippine Forestry Statistics data

management and forest land use planning were also implemented. These contributed in the sustainable allocation of land for development and environmental protection.

On land surveys, more emphasis was provided in the implementation of cadastral survey, which is one of the national flagship programs of President Aquino's administration. A new activity of the land survey program, called data transformation, which is a transformation of old cadastral survey to Philippine Reference System of 1992 (PRS 92) coordinates, was implemented. The data transformation of the following municipalities was accomplished: Bombon, Camaligan, Gainza, Magarao, Gubat, Malinao and Oas.

On foreshore management activities, several hectares of lots or areas were monitored to ensure that agreements on the issued tenurial instruments are followed and payments are made on time by the foreshore lease applicants or occupants. Updating of the appraisal and zonal values of foreshore areas used as beaches or resorts were conducted because of the emergence of eco-tourism as one of the major businesses in the Philippines. The area of the surveyed foreshore areas in the Bicol region increased from 5,920 hectares in 2011 to 23,124 hectares in 2016.

On Forest Land Use Planning (FLUP), the following activities were completed by DENR Region 5: (a) FLUP of two LGUs in Albay (Ligao City and Oas) were prepared or drafted; (b) FLUP of three LGUs in Camarines Sur (Lagonoy, Del

Gallego, Presentacion) were finalized and adopted by the *Sangguniang Bayan* of each LGU; and (c) one gender workshop for integration in the FLUP was conducted. The FLUP serves as a guide in managing the forest resources and the watersheds of every municipality to ensure biodiversity conservation, food and livelihood security, and climate change mitigation.

Reduction of water pollution was partially attained. Two of three major rivers (Balos and Salog rivers) monitored by the DENR-Environment Management Bureau in 2015 had maintained its pollution level classification as Class B and Class C waterbody, respectively, based on the parameters set under DAO 90-34. Major causes of pollutants were domestic waste, agricultural waste, livestock waste, and industrial waste due to increasing population, urbanization, and industrialization. Particularly in urban areas, the rivers were polluted with garbage. Rivers were also silted due to heavy rains. To improve water quality, various programs, activities and projects were implemented by the DENR EMB pursuant to RA 9275 or Philippine Clean Water Act. Among these are: (a) Adopt-an-*Estero* Program and *Sagip-Ilog* Program through clean-up activities to enhance the river condition; (b) Beach Ecowatch Program through coastal clean-up to protect the marine environment from possible outbreak of diseases; (c) Industrial Ecowatch for firms and industries; and (d) classification and/or reclassification of water bodies. In the pursuit of reviving the quality of water in the rivers, Naga River Watershed was identified as Water

Quality Management Area (WQMA) which covers the Naga River and its tributaries including the land embraced by the hydrologic unit identified in all barangays of Naga City and two barangays in Pili, Camarines Sur. The Naga River-WQMA aims to protect and improve the water quality of Naga River (classified as class C) and make its uses sustainable consistent with the water quality management objectives under Administrative Order No. 16-04. As a result, Naga City ordinance on septage and sewage system was implemented, and a feasibility study for the septage treatment facility was prepared.

Fair to good air quality index was noted. The 2015 assessment results of the air quality condition in the cities of Legazpi, Iriga, and Naga where sample filters were taken and analyzed, showed fair to good quality index that is compliant to the National Ambient Air Quality Guideline Values. The major sources of air pollution are mobile source, area source, and stationary source. Based on the 2015 emission inventory of air pollutants, area source has the highest emission of sulfur oxide, particulate matter and carbon monoxide due to the burning of solid wastes and forest fires (*kaingin*). To continuously improve air quality condition, various interventions were conducted in the region. Pursuant to RA 8749 or the Philippine Clean Air Act of 1999, the DENR-EMB continuously implemented the *Bantay Tambutso* Program, intensified the anti-smoke belching campaign, and conducted roadside monitoring apprehension to ensure vehicle compliance with motor vehicle

emission standards. Three airsheds were also designated in Naga City, Legazpi City, and Bacon-Manito, to implement an effective air quality management in their respective areas.

DRR-CCA efforts were undertaken but need further strengthening.

The target of the Bicol RDP 2011-2016 to formulate DRR and CCA-enhanced Provincial Development and Physical Framework Plans (PDPFPs), CLUPs and Zoning Ordinances (ZOs) by the six provinces and 114 LGUs, was partially attained. As of December 2016, all the provinces attained the target by completing its DRR-CCA enhanced PDPFPs. However, of 114 city and municipal LGUs, only 103 LGUs were able to formulate their CLUPs and only 14 of them managed to update their CLUPs in compliance to Executive Order No. 72, s. 1993. To achieve these targets, the HLURB Region 5 implemented its Zero Backlog Project, wherein technical assistance were provided to cities and municipalities in formulating and updating their CLUPs. The Regional Land Use Committee (RLUC) of the RDC, in coordination with the Philippine Association of State Universities and Colleges (with BU as lead), initiated the conduct of trainer's training on CLUP preparation to capacitate the faculty members of the different SUCs in the region to be able to provide technical assistance to the LGUs. Through the Integrating DRR-CCA Project of the NEDA, all provinces, were able to complete their DRR-CCA enhanced PDPFPs. Workshops and technical sharing sessions on vulnerability assessment using the Geographic Information System (GIS)

were conducted as part of the NEDA's technical assistance on local planning. The provinces of Camarines Norte, Catanduanes and Masbate were also given financial assistance to advocate their DRR-CCA-enhanced PDPFPs through the conduct of stakeholder's orientations and seminars. The IEC materials were distributed during these activities to build public awareness on the different hazards and vulnerable areas in their respective provinces.

Likewise, the Bicol RDP 2011-2016 aimed that 100 percent of the provinces, cities and municipalities would have functional DRRM councils (DRRMCs) and DRRM offices (DRRMOs). In 2016, 100 percent of the LGUs were able to establish and institutionalize their local DRRMCs and their local DRRMOs, from 40 percent in 2011 (48 LGUs) 2015. However, the challenge of appointing permanent personnel who will man and continuously set the direction, development, implementation, and coordination of DRRM programs in the LGUs remains. As of 2015, only ten LGUs have appointed their permanent DRRM Officers while the other 110 were designated. This is hindered by the budget ceiling for personnel services of LGUs as provided under the Local Government Code of 1991.

The six provincial DRRMOs established multi-hazard warning systems accomplishing 100 percent of the Bicol RDP 2011-2016 target. To ensure that effective and up-to-date early warning and advisory services are provided to the Bicolanos, 53 weather stations under

Hybrid and Hydromet projects were installed regionwide.

Other DRR-CCA initiatives conducted in the region which contributed to the attainment of the targets are: (a) implementation of disaster resilient programs, activities and projects, e.g., flood controls, sea walls; (b) intensive awareness and capacity building activities for various stakeholders including regional agencies, LGUs and community members; (c) mainstreaming DRR-CCA in development plans and investment programming; (d) issuance of policies and guidelines related to DRR-CCA, e.g., administrative guidance on integrating DRR-CCA in CLUP, annual investment program, and comprehensive development plan; (e) strengthening emergency response operations and community involvement; and (f) conduct of community-based hazard and vulnerability assessments, among others.

To ensure that the integrity of the ecosystem will not be compromised in pursuit of our economic development, the region has to (a) address the continuous deterioration and degradation of its environment; (b) ensure sustainable management of natural resources; and (c) ensure that adaptive capacities and resiliency of the ecosystem and communities are strengthened to combat the threat of disasters and climate change.

Other issues that have to be addressed are: (a) low compliance to environmental policies specifically to solid waste management act, clean air and water act, and mining act; (b) increasing number of

vehicles and motorcycles which contributes to air pollution; (c) proliferation of illegal small scale mining activities; (d) lack of technical capacities of duty bearers and community awareness which heightens the degradation of environmental resources; (e) lack of community engagement and participation in DRR-CCA initiatives

especially at the far flung and high-risk areas; (f) information and communication gap between and among government agencies; (g) a need to harmonize DRR-CCA programs, projects and activities across the government units and enhance the system of monitoring the utilization of the DRRM funds, among others.

Strategic Framework

Ensuring ecological integrity and improving socioeconomic condition of communities will contribute to enhancing the social fabric or “*Malasakit*”; reducing inequality or “*Pagbabago*”; and increasing growth potential or “*Patuloy na Pag-unlad*” towards laying down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive economy. By 2022, the

following subsector outcomes should have been achieved: (a) the region’s natural resources and sustaining the functioning of its ecosystem services enhanced; (b) environmental quality improved, and (c) the adaptive capacity and resiliency of the ecosystem and the communities improved. Figure 20.1 presents the Strategic Framework to Ensure Ecological Integrity, Clean and Healthy Environment.

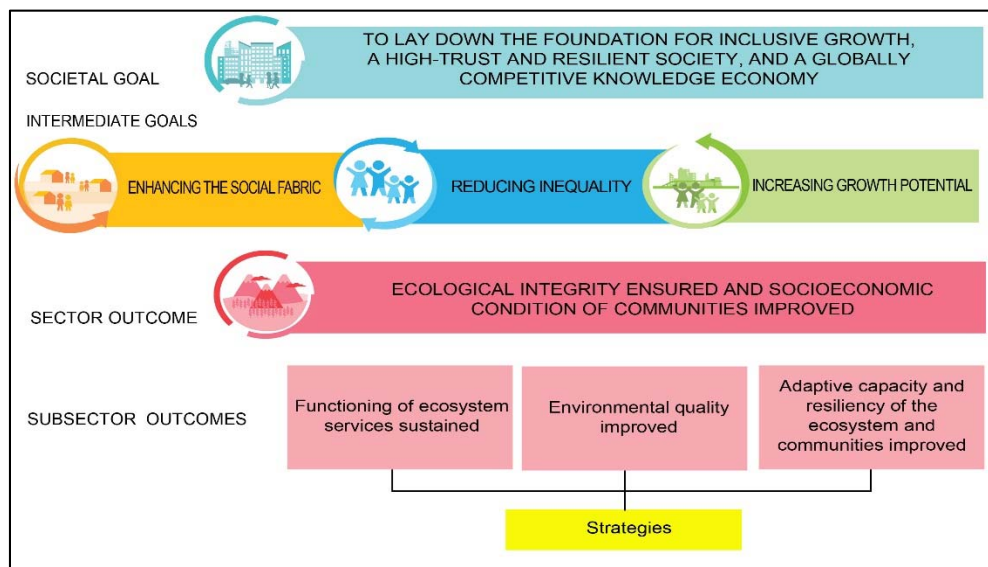
Targets

The Bicol RDP 2017-2022 targets to increase the forest cover from 202,445 hectares in 2010. It targets to increase the proportion of bodies of water with good ambient water quality and the number of

urban centers with good ambient air quality. Seven cities and 107 municipalities are targeted to have operational local DRR and CCA plans.

¹⁷ Based on 2015 Philippine Forestry Statistics data

Figure 20.1. Strategic Framework to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022



Strategies

The following strategies will help achieve the subsector outcomes to address the challenges presented above:

Subsector Outcome 1. Functioning of ecosystem services sustained

- **Promote sustainable management of resources by adopting integrated ecosystem management or the ridge-to-reef approach.** The ENR condition of the region shall be enhanced to ensure that the functioning of its ecosystem services will continuously support the needs of the present and future population. To achieve this, sustainable management of forest including mangrove, coastal, marine, and the mineral resources of the region shall be promoted and strengthened to ensure its long term

benefits. Adopting the integrated ecosystem management or the ridge-to-reef approach shall also be considered to ensure the interconnectivity of the different ecosystems.

Forest and Watershed. Reforestation and rehabilitation of degraded forestlands including critical watershed shall be given priority. This will be supported by protecting and conserving the existing forest ecosystem particularly its biodiversity to ensure the sustainability of forest services. Land administration and management shall be improved by strengthening the partnership between and among various agencies of the government. Formulation and updating of CLUPs and ZOs at the local level shall be strengthened. Major programs, activities and projects supporting these

strategies include NGP, agro-forestry development, forest resource assessment, watershed management and protected area management, forest land use planning, Integrated Bicol River Watershed Management and Development, anti-illegal logging campaigns, biodiversity conservation and protection through the LAWIN System¹⁸ land administration management system; and updating of CLUPs and ZOs in the local level, among others.

Coastal and Marine. To sustain the coastal and marine ecosystem services, strict implementation of existing policies, and strengthening the protection and management of coastal and marine resources shall be adopted. Major programs, activities and projects include mangrove rehabilitation program, establishment of marine protected areas and sanctuaries, marine mammal and elasmobranchs stranded response program, capacity building on coastal resources management to LGUs and fisherfolks, and *SCUBA surero*, among others.

Mineral Resources. The management and protection of mineral resources shall be strengthened by adopting responsible mining practices to sustain the integrity of mineral resources in the region. Compliance of mining industry to existing policies shall be strictly enforced, and activities addressing the proliferation of illegal small scale mining activities shall be implemented. The major programs, activities and projects to safeguard the integrity of the environment and mining-affected

communities include: (a) identification of possible *Minahang Bayan areas and establishment of Minahang Bayan*; (b) enforcement of regulations on the safety and environmental standards on mining; and (c) conduct of capacity building activities and awareness raising campaigns particularly to small scale miners, among others.

Wetlands and Caves. Strengthening the management of wetlands and caves especially those with high conservation value, including effective communication of sustainable practices and enforcement of biodiversity regulations shall be adopted.

Subsector Outcome 2. Environmental quality Improved

- **Strict enforcement of environmental policies.** Existing environmental policies shall be strictly enforced especially at the local level to avoid further deterioration of the environmental quality in the region.

Air Quality Management. Existing policies particularly the R.A. 8749 or the Clean Air Act shall be strictly enforced. Implementation of programs, activities and projects that will contribute to the attainment of the desired outcome include anti-smoke belching campaigns and vehicle testing, and maintenance and establishment of air quality monitoring stations, among others.

¹⁸ A science-based approach to protect the forest and biodiversity

Water Quality Management. The RA 9275 or the Clean Water Act of 2004 shall be strictly enforced. Water quality monitoring shall be enhanced by maintaining the number of water monitoring stations, and establishing the required number of water quality management areas. The improvement of sewage and septage facilities in the urban areas, and establishment of waste water and septage treatment facility in firm and manufacturing industries shall be observed. The major programs, activities and projects to be implemented in support to these strategies include Adopt-an-Estero Program, Sagip-Ilog Program and IEC campaigns, among others.

Land Quality Management. One of the key strategies to ensure land quality is the promotion of sustainable land management (SLM). Activities such as capacity building of LGUs on planning and management of land resources, as well as integration of SLM into sectoral, national, and local development plans shall be given priority. The management of solid, toxic and hazardous waste shall be enhanced. Compliance of LGUs to RA 9003 or the Ecological Solid Waste Management Act of 2000 in relation to the establishment of MRFs and sanitary landfills shall be enforced. Practice of 3Rs (reduce, reuse, recycle) and proper waste management, particularly in the local and household level, shall be strengthened. Agricultural waste disposal shall be improved, and green manuring and composting shall be promoted.

- **Promote sustainable consumption and production (SCP).** The region shall support the development and

implementation of SCP policies and initiatives particularly practices and technologies that will facilitate attainment of both economic goals and environmental standards. This can be done by establishing sustainable markets for recyclables and recycled products, and adoption of appropriate waste management technology, clean production technology, eco-friendly industries and adoption of green technology.

Subsector Outcome 3. Improved adaptive capacity and resiliency of the ecosystem and communities

To ensure that adaptive capacities and the resiliency of Bicolanos will improve, strengthening the implementation of CCA, and pre and post disaster interventions shall be adopted. The vulnerability reduction strategies identified in the Bicol RSDF shall be adopted across sectors to address disaster and climate risks. Activities aiming to reduce the vulnerabilities, and strengthening the physical, social, economic, and environmental capacities of the region shall be given priority (*Refer to Chapters 8, 9, 10, 11, 12 and 19*).

- **Strengthen implementation of DRR-CCA measures.** The implementation of DRR-CCA interventions including prevention, mitigation and preparedness activities shall be intensified from the regional to local level. Activities addressing the existing gaps and challenges as identified in the assessment such as enhancement

of the risk assessment process, installations and maintenance of early warning systems, development of regional database and monitoring of the utilization of local DRRM funds shall be given emphasis. Other programs, activities and projects that will support these strategies include: (a) capacity building for LGUs on hazard awareness and disaster preparedness; (b) conduct of hazard, vulnerability and risk assessment; (c) Operation LISTO¹⁹; (d) Project NOAH, and (d) Project DEWS (Deployment of Early Warning Systems), among others.

- ***Adopt community-based DRR-CCA approach.*** Adoption of community-based DRR-CCA approach shall be taken into consideration to reduce the vulnerabilities and increase the capacities of communities at-risk. The participation of vulnerable groups such as children, differently-abled persons and women in all stages of

disaster management process shall be encouraged to ensure that their concerns will be heard and considered.

- ***Enhance post-disaster mechanism.*** The build back better principle shall serve as the overarching principle in the implementation of post disaster interventions particularly in rehabilitation and recovery. To ensure that appropriate and prompt delivery of response and recovery interventions are provided, the response and recovery mechanism of the region shall be strengthened. Enhancement of the coordination and reporting protocols during disasters, and improving the post disaster assessment process (rapid disaster needs assessment and post disaster needs assessment) shall be given priority to ensure that appropriate interventions will be provided to rightful beneficiaries.

Cross-cutting strategies

To further support the three subsector outcomes, the following cross-cutting strategies are identified:

- **Strengthen multi-stakeholder participation at all levels.** The involvement of various sectors in the planning, implementation, as well as monitoring and evaluation of programs, activities and projects shall be encouraged. The conduct of multi-stakeholder consultations and
- discussions to ensure that the views of all concerned sectors are considered prior to decision making shall be strengthened.
- **Continue capacity building, institutional strengthening, and IEC campaigns.** Strengthening the capacities of individuals, groups and institutions shall be adopted across subsectors especially those that have the direct engagement and

¹⁹ A program of DILG for disaster preparedness

prime responsibilities in protecting the environment. The IEC campaigns shall be enhanced to increase level of awareness of the population including knowledge on the importance of protecting the ecological integrity especially at the community level.

- **Enhance information management, assessment process, and communication mechanism from the local to regional level.** Information management, assessment process, and communication mechanism shall be enhanced to

address information and communication gap, and to harmonize government efforts across agencies.

- **Strengthen alliance and enhance partnership between CSOs, community volunteers and private sectors.** The importance of working harmoniously with various sectors of the society is vital in the development process of the region. Alliance and partnership between CSOs, volunteers and private sectors shall be strengthened across subsectors to achieve better result.

PART VII

FROM PLAN TO ACTION



21

Plan Implementation and Monitoring

Plan Implementation and Monitoring

Investment Programming

Pursuant to Executive Order No. 325, s. 1996, the Bicol RDC shall coordinate the implementation of the Bicol RDP. The strategies identified in the Bicol RDP 2017-2022 are translated into doable programs, activities, and projects that will contribute to the attainment of the objectives and targets. These PAPs are contained in the regional development investment plan (RDIP), an accompanying document of the RDP, which has six-year time horizon. The preparation of the RDIP is guided by the Comprehensive Investment Programming Guidelines (CIPG) which provides the principles, processes, and

requirements of the Bicol RDC in the identification and prioritization of PAPs for inclusion in the RDIP and in the regional budget proposals of the agencies. The CIPG covers the priority PAPs of the regional line agencies (RLAs), government-owned and controlled corporations (GOCC), LGUs, SUCs, and special development bodies in the region that require national government support. The PAPs in the RDIP are updated and revalidated annually to ensure that these are consistent with the national and regional development priorities.

Project Development

The development of projects is anchored on the need to meet the development targets for the region. The prioritization of such projects shall be determined by the Bicol Project Development Committee (BPDC) of the RDC. The BPDC shall be reorganized to serve as a technical and facilitating body of the Bicol RDC in assisting RLAs, LGUs, and

SUCs in project planning and development. It shall also provide technical support services, through its technical working group, to improve the quality of project proposals and feasibility studies, and facilitate the review, evaluation, and endorsement of proposed projects for possible funding.

Financing

The implementation of the PAPs in the Bicol RDP can be funded out of the

General Appropriations Act, ODA, corporate funds of GOCCs, government

financial institutions (GFIs), and local government revenues. The private sector shall also be tapped for PPP projects or joint venture agreements with the LGUs as provided under the Local Government Code of 1991. The implementation of

the strategies and PAPs shall be undertaken by the RLAs, GOCCs, GFIs, LGUs, SUCs, and other implementing agencies.

Monitoring

Regional Project Monitoring and Evaluation System.

The implementation of the PAPs in the Bicol RDP shall be monitored under the Regional Project Monitoring and Evaluation System (RPMES) and the assessment of plan implementation system. The Bicol RDC shall enjoin all RLAs, GOCCs, SUCs, LGUs, PSOs, and other concerned stakeholders to carry out the monitoring function in accordance with their respective mandates, levels and responsibilities. It shall involve the evaluation of accomplishments vis-à-vis the plan objectives and targets. The RPMES shall be used to gather, process, and organize the status of implementation of programs and projects that contribute to the achievement of Bicol RDP targets. Inputs from the RLAs, GOCCs, SUCs, LGUs, PSOs and other stakeholders shall be gathered and shall be based on the results matrix.

Results Matrix. Consistent with the management for results which the public sector is pursuing, the results matrix (RM) shall be used as a tool in monitoring the progress of the Bicol RDP implementation. The RMs contain statements of the goals and outcomes with corresponding indicators, baseline information, annual and end-of plan

targets, means of verification, responsible agencies, assumptions, and risks.

Regional Development Report. An annual Regional Development Report (RDR) shall be prepared to present the assessment of the Bicol RDP implementation using the RMs. It shall assess the achievements and gaps in relation to the objectives and targets indicated in the Bicol RDP. Focus group discussions (FGDs) and/or sectoral and regional integration workshops shall be conducted with stakeholders in government, private sector, and CSOs to gather information on the extent to which the strategies, policies, and programs and projects implemented have contributed in achieving the Bicol RDP objectives. Other information that will be generated include the contributing factors or best practices that facilitated project implementation; hindering factors that delayed or hampered project implementation; and actions to facilitate project implementation.

Other reports. Other sources of information that can be used as bases in the assessment of Bicol RDP implementation are the Bicol Development Updates, agencies and LGUs annual reports, the Semestral

Regional Economic Situationer, the regional project monitoring and evaluation reports, and other reports

which contain information on programs, activities, and projects implementation.

Regional Research Agenda (RRA)

The regional research agenda (RRA) shall be formulated to support the attainment of the objectives of the Bicol RDP and the long-term vision of the Filipinos or the *AmBisyon Natin* 2040. The research agenda shall be aligned with the priorities of the National Science and Technology Plan. The preparation of the RRA shall be spearheaded by the Research and Development Committee created as a special committee under the RDC. It shall be the governing body on research

services and science and technology (S&T) in the region to ensure that research recommendations are converted into tangible tools that can be used for commercialization and utilization. It is headed by the regional director of the DOST Region 5 with the regional directors of the DA, DENR, DOH, CHED, NEDA, DepEd, and presidents of the Bicol University, Camarines Sur Polytechnic College, and Ateneo de Naga University as initial members.

Advocacy

The Advocacy Plan for the Bicol RDP, PDP, and the *AmBisyon Natin* 2040 shall be prepared and implemented to raise the level of awareness, promote commitment, sustain ownership, and encourage participation of various stakeholders in the region as development partners.

NEDA, PIA, DepEd, CHED, DOH, DSWD, DTI, DA, DENR, DPWH, DILG, LGU-PPDO, and RDC-PSRs. The advocacy plan shall build on the existing collaboration and partnership among the government and private sectors, and civil society organizations.

An ad hoc committee shall be created to assist the NEDA Region 5 in formulating a communication and advocacy plan that will serve as guide in advocating and promoting the Bicol RDP, PDP, and the *AmBisyon Natin* 2040. It shall be composed of representatives from

The advocacy activities shall include (a) production and dissemination of advocacy materials; (b) creation of an inter-agency and multi-sectoral pool of speakers; (c) conduct of advocacy caravans; and (d) advertisements through quad media.

List of Acronyms

ADM	Assistance to Disadvantaged Municipalities
ADP	Area Development Plan
ADR	Alternative Dispute Resolution
AEC	ASEAN Economic Community
AF	Agriculture and Fishery
AFF	Agriculture, Forestry and Fishery
AFMA	Agriculture and Fishery Modernization Act
AfMech	Agriculture and Fisheries Mechanization
AFP	Armed Forces of the Philippines
AHFF	Agriculture, Hunting, Forestry and Fishery
AI	artificial insemination
AIDS	Acquired Immunodeficiency Syndrome
AIP	Annual Investment Plan
ALECO	Albay Electric Cooperative
ALMASOR	Albay Masbate Sorsogon
APEC	Albay Power and Energy Corporation
ARBs	Agrarian Reform Beneficiaries
ARTA	Anti-Red Tape Act
ASEAN	Association of Southeast Asian Nations
ASTI	Advanced Science and Technology Institute
ATMs	automated teller machines
ATN	Assistance-to-Nations
BacMan	Bacon-Manito
BCAARRD	Bicol Consortium for Agriculture, Aquatic and Natural Resources Research and Development
BCHRD	Bicol Consortium for Health Research and Development
BCIEERD	Bicol Consortium for Industry, Energy and Emerging Technology Research and Development
BEFF	Basic Education Facilities Fund
BFAR	Bureau of Fisheries and Aquatic Resources
BFICC	Bicol Food Innovation and Commercialization Center
BFP	Bureau of Fire Protection
BHS	Barangay Health Stations
BIA	Bicol International Airport
BINs	Barangay Information Networks

BIRTH	Bicol Innovation Research and Technology Hub
BJMP	Bureau of Jail Management and Penology
BLGF	Bureau of Local Governance Finance
BOC	Bureau of Claims
BOC	Bureau of Customs
BOSS	Business One-Stop-Shop
BOT	Build-Operate-Transfer
BPLS	Business Permit and Licensing System
BRBWMP	Bicol River Basin Watershed Management Project
BRDC	Bicol Research and Development Committee
BRICE	Bicol Regional Invention Contests and Exhibits
BRTC	Bicol Regional Tourism Committee
BSP	Bangko Sentral ng Pilipinas
BTA	Bayanihan Team Activity
BU	Bicol University
BuB	Bottom-Up Budgeting
CAAP	Civil Aviation Authority of the Philippines
CADC	Certificate of Ancestral Domain Claim
CADT	Certificate of Ancestral Domain Title
CALABARZON	Cavite Laguna Batangas Rizal Quezon
CANORECO	Camarines Norte Electric Cooperative
CARPER	Comprehensive Agrarian Reform Program Extension with Reforms
CBMS	Community-Based Monitoring System
CBSUA	Central Bicol State University of Agriculture
CCTVs	closed circuit televisions
CDA	Cooperative Development Authority
CDF	controlled disposal facilities
CDP	Comprehensive Development Plan
CELA	Certificate of Land Allocation
CHED	Commission on Higher Education
CHR	Commission on Human Rights
CICL	Children In Conflict with the Law
CIPG	Comprehensive Investment Programming Guidelines
CIRS	Crime Incident Recording System
CLIP	Comprehensive Local Integration Program
CLUP	Comprehensive Land Use Plan
CMCI	Cities and Municipalities Competitiveness Index

CMO	Civil Military Operations
CMP	Community Mortgage Program
CMRFD	Conflict Manageable and Ready for Further Development
COA	Commission on Audit
CPI	Consumer Price Index
CPP-NPA-NDF	Communist Party of the Philippines-New People's Army-National Democratic Front
CREBA	Chamber of Real Estate and Builders' Association
CSC	Civil Service Commission
CSO	Civil Society Organization
CSU	Catanduanes State University
DA	Department of Agriculture
DAO	Department Administration Order
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DEWS	Deployment of Early Warning Systems
DICT	Department of Information, Communication and Technology
DILG	Department of the Interior and Local Government
DOH	Department of Health
DOJ	Department of Justice
DOJAC	DOJ Action Center
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DRR-CCA	Disaster Risk Reduction and Climate Change Adaptation
DRRM	Disaster Risk Reduction and Management
DRRMCs	Disaster Risk Reduction and Management Councils
DRRMOs	Disaster Risk Reduction and Management Officers
DSWD	Department of Social Welfare and Development

DTI	Department of Trade and Industry
ECAs	Environmentally Critical Areas
EDC	Energy Development Corporation
EMB	Environmental Management Bureau
ENR	Environment and Natural Resources
EO	Executive Order
ESWMA	Ecological Solid Waste Management Act
FDI	Foreign Direct Investments
FDP	Full Disclosure Policy
FGDs	Focused Group Discussions
FLEMMS	Functional Literacy, Education and Mass Media Survey
FIC	Food Innovation Centers
FLUP	Forest Land Use Planning
FMRs	Farm to Market Roads
FNRI	Food and Nutrition Research Institute
FOI	Freedom of Information
FS	feasibility study
GAP	Good Agricultural Practices
GAqP	Good Aquaculture Practices
GCG	Governance Commission for Government Owned and Controlled Corporations
GCI	Global Competitiveness Index
GDP	gross domestic product
GFH	Good Financial Housekeeping
GFI s	Government Financial Institutions
GHP	good handling practices
GIDAs	geographically isolated and disadvantaged areas
GIS	Geographic Information System
GNP	Gross National Product
GOCCs	government owned or controlled corporations
GRDP	Gross Regional Domestic Product
GCR	Greater Capital Region
GSIS	Government Service Insurance System
GUICADALE	Guinobatan-Camalig-Daraga-Legazpi
GVA	gross value added
G&OKB	Gayon AsinOrgullo Kan Bikol
HEIs	Higher Education Institutions
HIV	Human Immunodeficiency Virus
HOMA	Housing Materials Assistance
HR	Human Resource

HRD	Human Resource Development
HRM	Human Resource Management
HUDCC	Housing and Urban Development Coordinating Council
HVC	high value crops
IA	irrigator's association
IACAT	Inter-Agency Council Against Trafficking
ICC	Investment Coordinating Committee
ICT	Information Communication Technology
ICT	Information Communication Technology Office
IEC	Information, Education and Communication
IPs	Indigenous Peoples
IPAC	Inclusive Partnership for Agricultural Competitiveness
IRA	internal revenue allotment
IRP	Integrated Reorganization Plan
JAR	Judicial Affidavit Rule
JMC	Joint Memorandum Circular
LACAP	Localized Anti-Crime Action Plan
LCE	Local Chief Executive
LCUDIP	Legazpi City Urban Drainage Improvement Project
LDR	loans to deposits ratio
LGC	Local Government Code
LGU	Local government Unit
LGSP-LED	Local Governance Support Program for Local Economic Development
LLE	lawless elements
LQ	Location Quotient
LSDF	Luzon Spatial Development Framework
LTFRB	Land Transportation Franchising and Regulatory Board
LTO	Land Transportation Office
MARINA	Maritime Industry Authority
MASA MASID	Mamamayang Ayaw Sa Anomalya, Mamamayang Ayaw Sa Illegal na Droga
MC	Memorandum Circular
MDG	Millennium Development Goal
MGB	Mines and Geosciences Bureau
MICE	Meetings, Incentives, Conferences and Events

MISP	National Internal Security Plan
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MOVE	Men Opposed to VAW Everywhere
MRF	Materials Recovery Facility
MSMED	Micro, Small and Medium Enterprise Development
MSMEs	Micro, small and medium enterprises
MT	metric ton
M&As	mergers and acquisitions
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NAT	National Achievement Test
NCC	National Competitiveness Council
NCCA	National Commission for Culture and the Arts
NCP	National Competition Policy
NCIP	National Commission on Indigenous Peoples
NCR	National Capital Region
NEDA	National Economic and Development Authority
NEA	National Electrification Administration
NGOs	non-government organizations
NGP	National Greening Program
NHA	National Housing Authority
NHCP	National Historical Commission of the Philippines
NHFR	National Health Facility Registry
NHIP	National Health Insurance Program
NIA	National Irrigation Administration
NIPAS	National Integrated Protected Areas System
NOAH	Nationwide Operational Assessment of Hazards
NPS	National Prosecution Service
NSCM	National Solid Waste Management Commission
NSRP	North South Railway Project
NSS	National Spatial Strategy
NTC	National Telecommunications Commission
OCD	Office of Civil Defense
ODA	Official Development Assistance

OECD	Organization for Economic Cooperation and Development
OFs	Overseas Filipinos
OFC	Office for Competition
OFW	Overseas Filipino Worker
OJT	on-the-job training
OneLab	One Stop Laboratory Services for Global Competitiveness
OWWA	Overseas Workers Welfare Administration
PACD	Public Assistance and Complaints Disk
PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PAMANA	Payapa at Masaganang Pamayanan
PAPs	Programs, Activities and Projects
PCA	Philippine Coconut Authority
PCA	Philippines Competition Act
PCC	Philippine Competition Commission
PCG	Philippine Coast Guard
PCIP	Provincial Commodity Investment Plans
PDP	Philippine Development Plan
PDPFP	Provincial Development Physical Framework Plan
PESO	Public Employment Service Offices
PFM	Public Financial Management
PFMIP	PFM Improvement Plan
PGR	population growth rate
PhilFIDA	Philippine Fiber Development Authority
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PHFD	Philippine Health Facility Development Plan
PHIC	Philippine Health Insurance System
PI	preliminary investigation
PIDP	Participatory Irrigation Development Project
PIDS	Philippine Institute for Development Studies
PMR	Product Market Regulation
PNP	Philippine National Police
PNR	Philippine National Railways
POs	People's Organizations
POWER-GT	Promotion Of Women Empowerment and Rights of Genders for Tourism
PPP	Purchasing Power of Peso

PPP	Public-Private Partnership
PRDP	Philippine Rural Development Project
PRIME	Poverty Reduction thru Infrastructure, Investments, MSMEs & Eco-agri-tourism
PRIME-HRM	Program to Institutionalize Meritocracy and Excellence in Human Resource Management
Pro-GED	Promotion of Green Economic Development
PSA	Philippine Statistics Authority
PSOs	private sector organizations
PTB	passenger terminal building
PWD	person with disability
QMS	Quality Management System
QueBEx	Quezon-Bicol Expressway
RA	Republic Act
RAP-LGU	Resettlement Assistance Program for LGUs
RCM	Risk and Crisis Management
RCS	Report Card Survey
RDC	Regional Development Council
RDIP	Regional Development Investment Program
RDP	Regional Development Plan
RDR	Regional Development Report
RHU	Rural Health Unit
RLAs	Regional Line Agencies
RLUC	Regional Land Use Committee
RM	Results Matrix
RORO	Roll-On/Roll-Off
ROW	right-of-way
RPMEs	Regional Project Monitoring and Evaluation System
RPRH	Responsible Parenthood and Reproductive Health
RRA	Regional Research Agenda
RSCC	Regional Sector Coordinating Council
RSDF	Regional Spatial Development Framework
RSTL and RML	Regional Standards and Testing Laboratory and Regional Metrology Laboratory
R&D	Research and Development
SAFDZ	Strategic Agriculture and Fisheries Development Zone
SCP	sustainable consumption and production
SALINTUBIG	Sagana at Ligtas na Tubig Para sa Lahat
SCRP	Safe Closure and Rehabilitation Plans

SETUP	Small Enterprise Technology Upgrading Program
SGH	Seal of Good Housekeeping
SGLG	Seal of Good Local Governance
SHFC	Social Housing Finance Corporation
SHS	Senior High School
SLIA	South Luzon International Airport
SLM	sustainable land management
SM	Shoe Mart
SPMS	Strategic Performance Management System
SRIP	Small Reservoir Irrigation Project
SSFs	shared service facilities
SSIPs	small scale irrigation project/systems
STEM	Science, Technology, Engineering, and Math
STEP-CCA	Sustainable Tourism thru Environmental Protection & Climate Change Adaptation
STI	Science and Technology Institute
SUCs	State Universities and Colleges
SWM	Solid Waste Management
S&T	Science and Technology
TC	Tropical Cyclones
TDGVA	tourism direct gross value added
TESDA	Technical Educational and Skills Development Authority
TGPP	Tiwi Geothermal Power Plant
THIRIS	Tigman-Hinagyanan-Inarihan River Irrigation System
TIME	Tourism Information, Marketing & Enterprise
TISP	Tourism Industry Skills Program
TRIPP	Tourism Road Infrastructure Priority Project
TTCI	Travel & Tourism Competitiveness Index
Triple C	Camarines Norte Camarines Sur and Catanduanes
TVET	Technical-Vocational Education and Training
T&T	Travel and Tourism
UDHA	Urban Development and Housing Act
ULIMS	Unified Laboratory Information Management System
USA	United States of America
UV	utility van
VAWC	Violence Against Women and Children

WPP	Witness Protection Program
WPIS	e-Wanted Person Information System
WQMA	Water Quality Management Area
WTO	World Trade Organization
ZO	Zoning Ordinance
4Ps	Pantawid Pamilyang Pilipino Program

Bicol RDP 2017-2022

Planning Committees

DEVELOPMENT ADMINISTRATION COMMITTEE

Armed Forces of the Philippine (AFP)
Bureau of Fire Protection (BFP)
Bureau of Jail Management and Penology (BJMP)
Bureau of Local Government Finance (BLGF)
Civil Service Commission (CSC)
Commission on Human Rights (CHR)
Department of Budget and Management (DBM)
Department of the Interior and Local Government (DILG)
Department of Justice (DOJ)
Housing and Land Use Regulatory Board (HLURB)
National Economic and Development Authority (NEDA)
National Police Commission (NAPOLCOM)
Office of Civil Defense (OCD)
Philippine Statistics Authority (PSA)
Philippine Information Agency (PIA)
Philippine National Police (PNP)
Presidential Management Staff (PMS)

Secretariat: NEDA - Policy Formulation and Planning Division

ECONOMIC DEVELOPMENT COMMITTEE

Bangko Sentral ng Pilipinas (BSP)
Bureau of Fisheries and Aquatic Resources (BFAR)
Cooperative Development Authority (CDA)
Department of Agrarian Reform (DAR)
Department of Agriculture (DA)
Department of Environment and Natural Resources (DENR)
Department of Science and Technology (DOST)
Department of Tourism (DOT)
Department of Trade and Industry (DTI)

Environmental Management Bureau (EMB)
Mines and GeoSciences Bureau (MGB)
National Food Authority (NFA)
Philippine Fiber Development Authority (PhilFIDA)
Philippine Coconut Authority (PCA)

Secretariat: NEDA - Project Development, Investment Programming
and Budgeting Division

INFRASTRUCTURE DEVELOPMENT COMMITTEE

Civil Aviation Authority of the Philippines (CAAP)
Department of Energy (DOE)
Department of Public Works and Highways (DPWH)
Department of Information and Communications Technology (DICT)
Land Transportation Franchising and Regulatory Board (LTFRB)
Land Transportation Office (LTO)
Maritime Industry and Naval Authority (MARINA)
National Economic and Development Authority (NEDA)
National Electrification Administration (NEA)
National Irrigation Authority (NIA)
National Telecommunications Commission (NTC)
Philippine National Railways (PNR)
Philippine Ports Authority (PPA)

Secretariat: NEDA - Project Monitoring and Evaluation Division

SOCIAL DEVELOPMENT COMMITTEE

Bicol University (BU)
Camarines Norte State College (CNSC)
Camarines Sur Polytechnic Colleges
Commission on Higher Education (CHED)
Department of Education (DepEd)
Department of Health (DOH)
Department of Labor and Employment (DOLE)
Department of Social Welfare and Development (DSWD)

Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and
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Housing and Urban Development Coordinating Council (HUDCC)
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ANNEXES

The background of the page features a dynamic, abstract design. It consists of flowing, wavy lines in shades of blue and red, creating a sense of movement and depth. The lines are layered, with some appearing more prominent than others, giving the background a three-dimensional feel. The colors transition smoothly from light blue and pink at the top to deeper blue and red at the bottom.

Proposed Network of Settlements in the Bicol RSDF

REGIONAL CENTER	SUB-REGIONAL CENTER	PROVINCIAL CENTER	LOCAL CENTER
Legazpi City	Daet, Camarines Norte	Aroroy, Masbate	Bagamanoc, Catanduanes
Naga City	Iriga City	Baao, Camarines Sur	Balatan, Camarines Sur
	Ligao City	Bacacay, Albay	Baleno, Masbate
	Masbate City	Buhi, Camarines Sur	Balud, Masbate
	Matnog, Sorsogon	Bula, Camarines Sur	Baras, Catanduanes
	Pili, Camarines Sur	Bulan, Sorsogon	Barcelona, Sorsogon
	Sorsogon City	Calabanga, Camarines Sur	Basud, Camarines Norte
	Tabaco City	Camalig, Albay	Bato, Camarines Sur
	Virac, Catanduanes	Castilla, Sorsogon	Bato, Catanduanes
		Cawayan, Masbate	Batuan, Masbate
		Daraga, Albay	Bombon, Camarines Sur
		Goa, Camarines Sur	Bulusan, Sorsogon
		Gubat, Sorsogon	Cabusao, Camarines Sur
		Guinobatan, Albay	Camaligan, Camarines Sur
		Irosin, Sorsogon	Canaman, Camarines Sur
		J. Panganiban, Camarines Norte	Capalonga, Camarines Norte
		Labo, Camarines Norte	Caramoan, Camarines Sur
		Lagonoy, Camarines Sur	Caramoran, Catanduanes
		Libmanan, Camarines Sur	Casiguran, Sorsogon
		Libon, Albay	Cataingan, Masbate
		Milagros, Masbate	Claveria, Masbate
		Nabua, Camarines Sur	Del Gallego, Camarines Sur
		Oas, Albay	Dimasalang, Masbate
		Paracale, Camarines. Norte	Donsol, Sorsogon
		Pilar, Sorsogon	Esperanza, Masbate
		Placer, Masbate	Garchitorena, Camarines Sur
		Polangui, Albay	Gainza, Camarines Sur
		Ragay, Camarines Sur	Gigmoto, Catanduanes
		Sipocot, Camarines Sur	Jovellar, Albay
		Tinambac, Camarines Sur	Juban, Sorsogon
		Tiwi, Albay	Lupi, Camarines Sur
		Uson, Masbate	Magallanes, Sorsogon
			Magarao, Camarines Sur
			Malilipot, Albay
			Malinao, Albay
			Mandaon, Masbate

REGIONAL CENTER	SUB-REGIONAL CENTER	PROVINCIAL CENTER	LOCAL CENTER
			Manito, Albay
			Mercedes, Camarines Norte
			Milaor, Camarines Sur
			Minalabac, Camarines Sur
			Mobo, Masbate
			Monreal, Masbate
			Ocampo, Cam. Sur
			Palanas, Masbate
			Pamplona, Camarines Sur
			Pandan, Catanduanes
			Panganiban, Catanduanes
			Pasacao, Camarines Sur
			Pio V. Corpuz, Masbate
			Pio Duran, Albay
			Presentacion, Camarines Sur
			Prieto Diaz, Sorsogon
			Rapu-rapu, Albay
			Sagñay, Camarines Sur
			San Andres, Catanduanes
			San Fernando, Camarines Sur
			San Fernando, Masbate
			San Jacinto, Masbate
			Sn Lorenzo Ruiz, Camarines Norte
			San Miguel, Catanduanes
			San Pascual, Masbate
			San Vicente, Camarines Norte
			Sta. Elena, Camarines Norte
			Sta. Magdalena, Sorsogon
			Sto. Domingo, Albay
			San Jose, Camarines Sur
			Siruma, Camarines Sur
			Talisay, Camarines Norte
			Tigaon, Camarines Sur
			Viga, Catanduanes
			Vinzons, Camarines Norte

Table 1. List of RSDF Core Infrastructure PAPs

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
JCT AH26 (Maharlika Highway to Pantao Port)	Widening of Polangui-Pantao road to a 4-lane highway and correction of alignment and grade. Approximately 16 km. The project will provide transport connectivity to Pantao port.	Polangui and Libon, Albay	1.072	GAA	2015	2025		x		/	
Matnog-Bulan-Magallanes Road	Concreting of 60.5 kms. road leading to Matnog port	Sorsogon	1.865	GAA	2015	2025		x			
Matnog-Sta. Magdalena-Bulusan road	Concreting of 30 kms. road leading to Matnog port	Sorsogon	0.925	GAA	2015	2025		x			
Jct Asid-Bara-Malbug road	Construction of 30 kms road and 180 LM bridge leading to Milagros port	Masbate	0.603	GAA	2015	2025		x			
Sorsogon-Samar Seamless Corridor Project		Sorsogon and Samar	93.8	GAA	2015	2035		x			/
Don PiCaSo Highway		Sorsogon	2.003	GAA	2015	2035		x			
Cadac-an River Development Project	The Cadac-an River Basin covers an area of 19,027 hectares located along the Irosin-Juban valley. The project will have the following components: (1) flood mitigation which includes river embankment, dredging of heavily silted river bed, bamboo plantation, and flood forecasting and warning system; (2) roads and bridges; (3) irrigation; (4) eco-tourism; and (5) watershed management.	Sorsogon	1.755	GAA	2015	2035		x			/
Jose Panganiban Port	Improvement of existing port facilities. With RoRo and PTB. The port inter-regional connectivity to Quezon province.	Camarines Norte	0.402	DOTC/PPA	2015	2035		x		/	

Cont... Table 1

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDf STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
Bulan Port	Improvement of existing port facilities. The port serves as secondary gateway to Visayas and Mindanao.	Sorosogon	0.67	DOTC/PPA	2015	2035		x		/	
Milagros Port	Improvement of existing port facilities. With RoRo and PTB. The port will serve as gateway to Roxas City, Estancia, Iloilo and provide connectivity to tourism development in the Bicol region, Regions 6 and 7.	Masbate	0.67	DOTC/PPA	2015	2025		x		/	
Cawayan Port	Improvement of existing port facilities. With RoRo and PTB. The port will serve Bogo City and Cebu City.	Masbate	0.67	DOTC/PPA	2015	2025		x		/	
South Luzon International Airport	Construction of a new domestic Principal Class 1 airport of international standards to replace existing Legazpi Airport due to its limited physical expandability and operational safety concerns. The project will support functional role of Legazpi as a regional growth center.	Daraga, Albay	6.43	GAA	2015	2025	x			/	
New Masbate Airport	Relocation of the airport to Cayabon, Milagros, Masbate. The development of the new airport calls for the relocation of the existing airport due to its limited operational capacity and safety concerns.	Masbate	3.35	GAA	2015	2035		x		/	
North-South Railway Project - South Line	The NSRP involves three phases: Phase 1 (north line) is 37 kms. commuter train from Malolos-Tutuban; Phase 2 (south line - 653 kms.) composed of 56 kms. Tutuban-Calamba commuter rail, 478 kms. Manila-Calamba-Legazpi long haul, and 117 kms. proposed extension line Legazpi-Matnog; and Phase 3 (north line - 575 kms. composed of 266 kms. Manila-Tarlac-San Fernando, 55 kms. Tarlac-San Jose, and 254 kms. San Jose-Tuguegarao.	Region 4A, and 5	228.738	PPP	2015	2025		x		/	
Virac Airport	Upgrading of the airport facilities in accordance to ICAO standards	Catanduanes	0.536	GAA	2015	2025		x		/	
Arimbay-Sta. Misericordia Viaduct	Construction of a 2.5 kms viaduct along the Legazpi-Tabaco road	Albay (Legazpi City and Sto. Domingo)	0.002	2015	2035			x	/		

Cont... Table 1

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
Andaya Highway (Quirino)	Widening of Andaya Highway to a 4-lane highway and correction of alignment and grade. Approximately 55 kms. The beginning of the project will connect the terminus of Malicboy Freeway. The project will serve as an alternate highway to the south serving the Bicol region, and the Visayas and Mindanao regions	Sipocot/Lupi/Ragay(Camarines Sur) & Tagkawayan,Quezon	3.685	GAA	2015	2025		x		/	
Libmanan Freeway	Widening of the existing AH-26 Highway (Maharlika Highway) to a 4-lane highway from Jct. Sipocot-San Fernando, Camarines Sur (32 kms.), The beginning of the project will connect the terminus of Andaya Freeway. The project will the Bicol region, and road users goin to the Visayas and Mindanao regions	Camarines Sur	2.144	GAA	2015	2025		x		/	
Legazpi Port		Legazpi City	1.34	DOTC/ PPA	2015	2035		x		/	
Tabaco Port	Improvement of existing port facilities. With RoRo and PTB. The port provides international connectivity	Tabaco City	1.34	DOTC/ PPA	2015	2035		x		/	
Masbate Port	Improvement of existing port facilities. With RoRo and PTB. The port provides inter-regional connectivity to Batangas, Manila and Lucena City.	Masbate	1.34	DOTC/ PPA	2015	2035		x		/	
Bicol Regional (Pantao) Port	Improvement of existing port facilities. With RoRo and PTB. The port provides inter-regional connectivity to Batangas, Manila and Lucena City.	Libon, Albay	1.34	DOTC/ PPA	2015	2035		x		/	
Mercedes Port	Improvement of existing port facilities. With RoRo and PTB. The port provides inter-regional connectivity to Quezon province. It supports the functional role of Daet as sub-regional center	Camarines Norte	0.469	DOTC/ PPA	2015	2025		x		/	
Matnog Port	Improvement of existing port facilities. The port serves as gateway to Visayas and Mindanao.	Sorsogon	1.34	DOTC/ PPA	2015	2025		x		/	

Cont... Table 1

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
Mandaon Port	Relocation of existing Mandaon port to Maulingon with RoRo facilities and PTB and access road. The project will serve as gateway to Roxas City, Sibuyan and Romblon and provide connectivity to tourism destinations in the Bicol regions, Regions 4B, 6 and 7.	Masbate	1.34	DOTC/ PPA	2015	2025		x		/	
Maharlika Highway (AH 26) Improviement Project	Widening of Maharlika Highway with exceptions from del Gallego to Matnog, Sorsogon	Camarines Norte, Camarines Sur, Albay and Sorsogon	6.03	GAA	2015	2050		x		/	
Cataingan Port	Improvement of existing port facilities. The port serves as gateway to Bogo city, Cebu City, Almagro and Tagpulan, Samar and provide connectivity to tourism destinations in the Bicol region, Regions 7 and 8..	Masbate	0.67	DOTC/ PPA	2015	2025		x		/	
Castilla- Magallanes Link Project		Castilla and Magallanes, Sorsogon	25.46	GAA	2015	20135		x	/		
Cawayan-Placer (via Daraga)- Esperanza Road		Masbate	1.548	GAA	2015	2035		x	/		
New Naga Airport Project	Improvement of existing Naga Airport at Pili, Camarines Sur and development of a new airport of international standards. The development of the new airport calls for the re-orientation of the existing airport due to its limited operational capacity and safety concerns. The project will suport Naga City as a regional center.	Pili, Camarines Sur	4.734	GAA	2015	2035		x		/	
Caramoan Peninsula Road		Camarines Sur		DPWH				x		/	
Pioduran- Buenavista-Donsol Road		Provinces of Albay & Sorsogon		DPWH						/	
Bacon-Manito Road		Bacon, Sorsogon & Manito, Albay		DPWH						/	

Cont... Table 1

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
San Vicente-Guijalo Road				TBI				x		/	
Claveria-San Pascual Road		Province of Masbate		DPWH						/	
Old Legazpi Airport Re-development Project		Legazpi City		TBI				x	/		
Amphibian Air Terminal System	Intra-ALMASOR / Inter-Island transportation system that will shorten travel time of commuters in Pilar, San Jacinto, Masbate City and Tabaco City & will bring comfort of commuters especially during inclement weather situation	Tabaco City, Masbate City, Pilar, San Jacinto		TBI				x			/
TOTAL			398.415								

A - Concentration Strategy

B - Connectivity Strategy

C - Vulnerability Reduction Strategy

Table 2. List of RSDF Complementary Infrastructure PAPs

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
Guicadale Strategic Platform Road Network	The project consists of 11 circumferential road sections & 6 new arterial roads cascading from the urban centers of Guinobatan, Camalig, Daraga, Legazpi City and Jovellar. It was designed to encourage economic activities safe from the threats posed by Mayon volcano eruptions, lahar flows, flooding and tsunamis. It will also provide access to the South Luzon International airport	Albay (Guinobatan, Camalig, Daraga, Legazpi)	1.169	GAA	2015	2025	x			/	
Albay-Masbate Sorsogon (ALMASOR) Tourism Projects	The component roads and bridges projects will provide the vital link with other modes of transportation & complement other sector PPAs. The projects will also lead from the tourism hubs to the tourism destinations in the 3 provinces	3 provinces (Albay, Masbate, Sorsogon)	40.2	GAA	2015	2025	x			/	
Triple C (Camarines Norte, Camarines Sur and Catanduanes) Tourism Projects	The component roads and bridges projects will provide the vital link with other modes of transportation & complement other sector PPAs. The projects will also lead from the tourism hubs to the tourism destinations in the 3 provinces	3 provinces (Camarines Norte, Camarines Sur and Catanduanes)	33.5	GAA	2015	2025	x			/	
Presentacion-Caramoan Coastal Road	The project consisting of 20.4 kms. that will provide access to Caramoan, one of the region's major tourism destination	Camarines Sur	0.683	GAA	2015	2025		x		/	
Albay West Coast Road	The project involves the improvement of 32 kms. roads to PCCP, the repair/replacement of 5 bridges - 250 LM and slope protection and drainage	Albay	1.528	DPWH	2015	2025		x		/	
Catanduanes Friendship Bridge	Construction of a 10.8 kms. bridge from Tibang (near Codon), San Andres, Catanduanes to Rungus Pont, Camaroan Peninsula in Camarines Sur. The project will connect the island province of Catanduanes to mainland Bicol.	Catanduanes	115.776	TBI	2015	2035		x		/	

Cont... Table 2

PROJECT NAME	SHORT DESCRIPTION	LOCATION	COST (PBILLION)	FUND SOURCE	IMPLEMENTATION PERIOD		STATUS		LSDF STRATEGY		
					START	FINISH	ONGOING	PROPOSED	A	B	C
Cagraray-Batan-Rapurapu Bridges	Construction of 9 bridges (183 LM) and 2 viaducts (3.8 kms.) and 38 kms. road that will connect the islands of Batan and Rapu-Rapu	Bacacay and Rapu-Rapu, Albay	27.872	GAA	2015	2035		x			/
Pantao-Balatan-Pasacao Coastal Road	Construction and upgrading of 48.7 kms. coastal road	Albay & Cam.Sur	1.631	GAA	2015	2025		x			/
Pasacao-Ragay Coastal Road	Construction and upgrading of 51.2 kms. coastal road	Camarines Sur	1.715	GAA	2015	2025		x		/	
Tabaco-Malinao-Buhi Road	Improvement of 34.76 km. road	Albay & Cam.Sur	1.256	2015	2025			x		/	
Mercedes-Basud-Sipocot Road	Construction/upgrading of 39.8 kms. road	Camarines Norte	1.333	2015	2025			x		/	
Sipocot (Barceloneta)-Cabusao-Calabanga Road	Upgrading of 20.1 kms. road and construction of Balongay bridge (650 LM) wuth flood gate along the Bicol River	Camarines Sur	44.089	2015	2025			x		/	
Legazpi - Naga Freeway	Construction of a freeway to decongest traffic in the urban area	Camarines Sur / Albay	3.69	TBI				x		/	
President Cory Aquino Boulevard	Upgrading (Gravel to concrete) of the road leading to a tourist destination	Daet, Camarines Norte	0.010	DPWH	Dec. 2013		x			/	
Catanduanes Circumferential Road	a national road which traverses almost around the island and passing through the inetrior of the province	Catanduanes Province		DPWH	Oct-04		x			/	
Development of Renewable Energy Sources				TBI				x		/	
Barangay and Sitio Energization Program				TBI				x		/	
Upgrading of power distribution lines				TBI				x		/	
TOTAL			274.452								

Note: TBI - To Be Identified

A - Concentration Strategy

B - Connectivity Strategy

C - Vulnerability Reduction Strategy



REGIONAL DEVELOPMENT PLAN 2017-2022

Published by:

National Economic and Development Authority
Arimbay, Legazpi City
<http://nro5.neda.gov.ph>

ISSN: