



BICOL REGIONAL DEVELOPMENT PLAN

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Bicol Regional Development Plan 2023-2028

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Message



The National Economic and Development Authority or NEDA, in close coordination with other government agencies, sectoral experts, development partners, and stakeholders, completed the Philippine Development Plan (PDP) 2023-2028 in December 2022. The PDP serves as the country's medium-term blueprint to reinvigorate job creation and accelerate poverty reduction by steering the economy back to its high-growth path.

The formulation of the PDP 2023-2028 took place in a socioeconomic landscape that presented several setbacks, including the scarring effects of the COVID-19 pandemic as well as the impacts of other global trends and challenges such as geopolitical conflict, increasing use of automation and accelerating digitalization, and greater weather volatility and uncertainty owing to climate change. These challenges shaped the formulation of the Plan we have today. Now, as we move forward from our focus on post-pandemic recovery, the challenges at hand are on enabling economic transformation and inclusive development.

In the short term, these challenges include addressing inflationary pressures and protecting the vulnerable sections of society, especially people experiencing poverty, from economic shocks and natural hazards. For the medium term, the Plan contains strategies focused on addressing the binding constraints to economic growth and inclusion by generating more higher-quality jobs. The Plan is aligned with the *AmBisyon Natin 2040* or our long-term vision for a *matatag, maginhawa, at panatag na buhay* for all Filipinos.

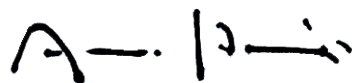
In turn, the Regional Development Plans (RDPs) are expected to cascade and lay out the strategies for attaining our development objectives at the local levels of governance, especially as we aim to transform the lives of our people and ensure that economic growth is inclusive. The RDPs, in line with our country's long-term vision and the goals of the PDP 2023-2028, shall address the challenges specific to each region's socioeconomic context.

President Ferdinand R. Marcos, Jr. has recognized the need to strengthen NEDA's presence and role in local government units (LGUs). Proactive engagement requires aligning national and local policies to ensure that government plans and programs

appropriately reflect local development priorities. With this in mind, the RDPs 2023-2028 are formulated with a comprehensive perspective of critical LGU attributes that would inform regional sectoral strategies. The RDPs highlight major local initiatives that can significantly contribute to attaining regional development objectives and targets. This approach enhances the connection between regional and local planning, promotes greater local ownership of the RDPs, and provides guidance to the LGUs in formulating their local development strategies and programs.

I thank the Regional Development Council of Bicol Region for its commitment to formulating the RDP 2023-2028 and directing various regional development initiatives to achieve our desired socioeconomic outcomes.

Finally, we call for the cooperation of our LGUs, regional agencies, private institutions, non-government organizations, and members of civil society to participate in this joint effort. Together, let us work hard towards achieving a prosperous, inclusive, and resilient society in Bicol Region and throughout the country.



ARSENIO M. BALISACAN

Secretary

National Economic and Development Authority

Preface



Under Executive Order No. 5 s. 2016, the country adopted the *AmBisyon Natin 2040* which represents the collective aspirations for ourselves and the country, that by 2040, the Philippines will be a “prosperous, predominantly middle-class society where no one is poor; people enjoy long and healthy lives, are smart and innovative, and live in a high-trust society.”

The predecessor RDP 2017-2022 aimed to lay down the foundation for inclusive growth, a high-trust and resilient society, and a globally-competitive knowledge economy. The Bicol Region has been moving in that direction with all key indicators set to be achieved such as poverty, gross regional domestic product (GRDP), and employment

targets. This positive performance was disrupted due to the occurrence of calamities and the COVID-19 pandemic.

The successor RDP 2023-2028, containing 17 chapters, focuses on economic and social transformation, with the end goal of a prosperous, inclusive, and resilient society. It is grounded on President Ferdinand R. Marcos Jr.'s 8-point socioeconomic agenda that will address short and medium-term issues impeding the country's inclusive and sustainable growth, and aligned with the United Nations' Sustainable Development Goals.

As the second medium-term plan anchored on the *AmBisyon Natin 2040*, the Bicol RDP 2023-2028 will serve as the region's blueprint for socioeconomic development and will be the basis for the region's priority policies, programs, and projects over the next six years. The Regional Development Council (RDC) 5, through its Sectoral Committees as the RDP Planning Committees, adopted a participatory planning process in the formulation of the Plan to gain ownership and commitment from stakeholders. Various consultations were conducted to ensure that local aspirations and inclusivity of development are considered.

I enjoin everyone's cooperation in implementing strategies that are supportive of the Plan. Let us strive and work together to attain a prosperous, inclusive, and resilient society, and reclaim the pre-COVID-19 pandemic status as one of the fastest-growing regions in the country.

I also would like to extend my heartfelt gratitude to the members of the RDC 5 and its committees, the regional line agencies, local government units, private sector, non-governmental organizations, civil society organizations, academe, and other stakeholders for the collective effort and invaluable contributions, and to the NEDA Regional Development Group and Policy and Planning Group for their guidance.

Let us continue to work together in realizing our vision for the country, for ourselves and our children, and for future generations towards a *matatag, maginhawa, at panatag na buhay!*

A stylized black ink signature of Luis G. Banua.

LUIS G. BANUA

NEDA 5 Regional Director and
RDC 5 Vice Chairperson

PART I

Introduction



01

Overview of the Regional Economy, Development Context and Trends



Overview of the Regional Economy, Development Context and Trends

The Bicol Region is one of the fastest-growing regions in the country which resulted in a significant improvement in the poverty situation because of the better employment opportunities available in the region. These developments were realized through the implementation of economic reforms by the national government, the upgrading of infrastructure facilities, and the provision of social services. However, due to resource limitations from 2020 to 2021, the region was not able to cope with the many issues and challenges that must be confronted resulting in a decline in the GRDP.

This chapter provides the highlights of the regional situation, trends on key socioeconomic indicators, and other information relevant to the socioeconomic development of the region.

Economic Trends

For the past 13 years, the Bicol economy almost doubled from a Gross Value Added (GVA) of PHP277.46 billion to PHP540.14 billion (at constant 2018 prices) and an increased share of Gross Domestic Product (GDP) from 2.7 percent in 2009 to 3.0 percent in 2021. The Bicol economy is developing but mimics a mature economic structure of high-income and developed economies where it is driven by the Services sector. Because of its large population, the per capita GRDP of the region has remained one of the lowest, second to the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), at PHP87,219.00 in 2021 at constant 2018 prices.

Under the RDP 2017-2022, the region managed accelerated growth despite the effects of various disasters, such as Typhoon Nina in 2016; Typhoon Ompong,

Tropical Depression (TD) Usman, and the eruption of Mt. Mayon in 2018; Tropical Cyclones (TC) Quinta, Rolly, and Ulysses (QRU) in 2019.

In 2019, the Bicol economy accelerated to 8.2 percent from 7.2 percent in 2016 (Figure 1.1), exceeding the RDP 2017-2022 target of 6-7 percent and outpacing 17 other regions in the country. However, because of the COVID-19 pandemic and TCs QRU in 2020, the region's GRDP plunged to negative 8.3 percent in 2021. The GRDP rebounded to 4.3 percent in the same year despite the challenges brought by the pandemic, the impacts of TCs QRU that occurred in 2020, the African Swine Fever (ASF), and other diseases and pests which affected some parts of the region.

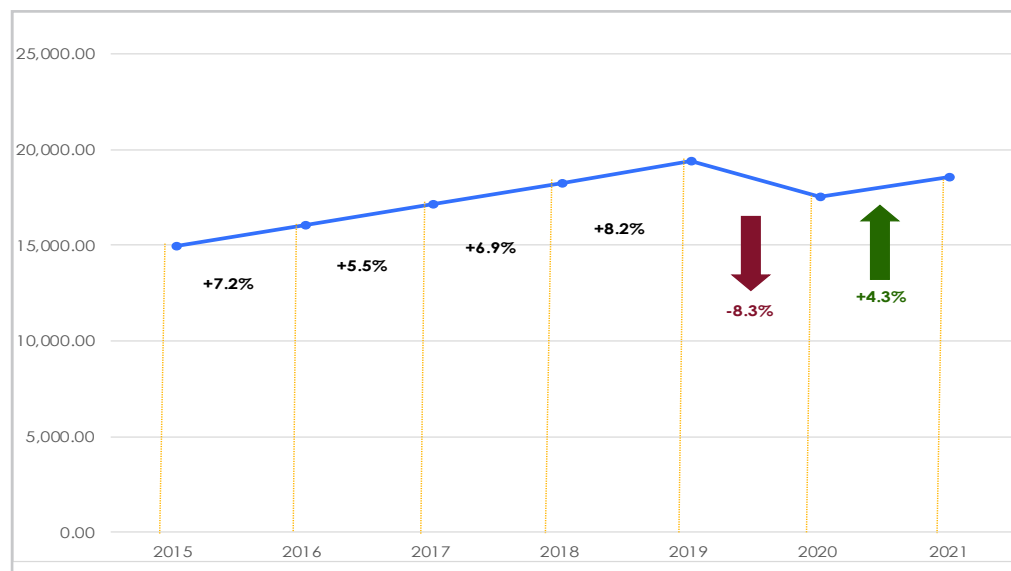
The Bicol economy is predominantly Services-driven consisting of about 47.73

percent, followed by Industry (35.66 percent), and Agriculture, Forestry, and Fishing (AFF) (16.61 percent). For the past two decades, the AFF sector was second to Services, but because of its

sluggish growth, the AFF sector was overtaken by the Industry sector starting in 2008 (Figure 1.2).

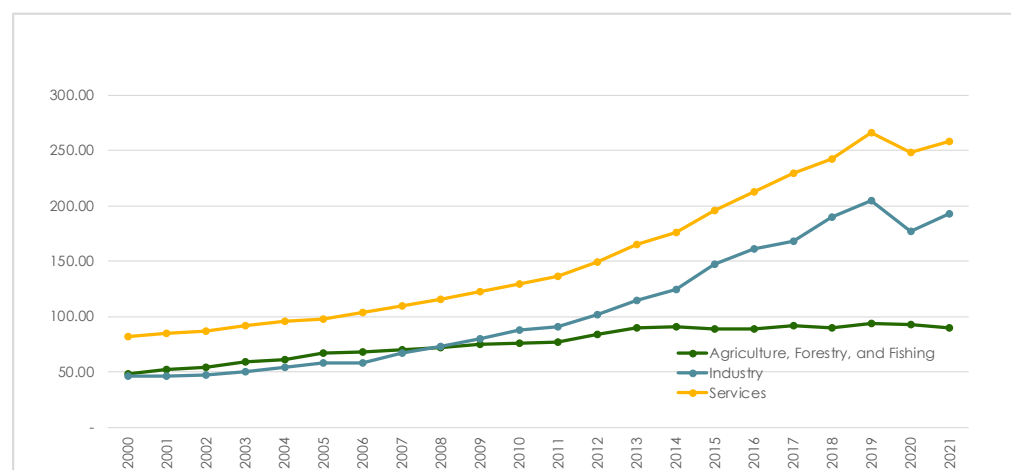
Over the past decade, the Services sector

Figure 1.1 GRDP in the Bicol Region, 2015-2021, in Million Pesos, at Constant 2018 Prices



Source: Philippines Statistics Authority (PSA)

Figure 1.2 GRDP in the Bicol Region by Industry of Origin, 2000-2021, in Billion Pesos, at Constant 2018 Prices



Source: PSA

expanded mainly because of the more vibrant tourism activities under the Other Services subsector. Consequent to the increase in the construction industry,

more tourism destinations were developed as better access to these destinations significantly improved which contributed to the influx of both domestic and foreign

tourists. Other Services subsectors correspondingly increased such as transportation and communication, trade, financial intermediation (banks and other

lending institutions), and real estate. The AFF sector, though increasing, continued with a slow performance.

Demographic Trends

Population Size

Based on the 2020 Census of Population and Housing (CPH), the Bicol population already reached 6.08 million (Table 1.1). It accounts for 5.58 percent of the country's population, ranks 6th among the 17 administrative regions in the country, and ranked 4th among the Luzon regions. For the past 20 years, the region's population grew by 1.4 million or by almost 30 percent

of the year 2000 population. Among the provinces, Camarines Sur has remained with the biggest population comprising one-third of the region's overall population at 34.01 percent, while Catanduanes has the least population share at 4.47 percent. All provinces, except Camarines Sur and Camarines Norte, have decreased share of the total regional population.

**Table 1.1. Population Size, Distribution, and Growth Rate, Percentage by Province
Bicol Region: 2000, 2010, and 2020**

REGION/ PROVINCE	2000				2010				2020			
	POP'N SIZE	% SHARE	R	ANNUAL GR (1990 TO 2000)	POP'N SIZE	% SHARE	R	ANNUAL GR (1990 TO 2000)	POP'N SIZE	% SHARE	R	ANNUAL GR (1990 TO 2000)
Region V	4,686,669			1.83	5,420,411			1.46	6,082,165			1.16
Camarines Sur	1,551,549	33.11	1	1.74	1,822,371	33.62	1	1.62	2,068,244	34.01	1	1.27
Albay	1,090,907	23.28	2	1.90	1,233,432	22.76	2	1.23	1,374,768	22.60	2	1.09
Masbate	707,668	15.10	3	1.67	834,650	15.40	3	1.66	908,920	14.94	3	0.86
Sorsogon	650,535	13.88	4	2.21	740,743	13.67	4	1.31	828,655	13.62	4	1.13
Camarines Norte	470,654	10.04	5	1.87	542,915	10.02	5	1.44	629,699	10.35	5	1.49
Catanduanes	215,356	4.60	6	1.42	246,300	4.54	6	1.35	271,879	4.47	6	0.99

Legend:

GR - Growth Rate R - Ranking

Source: PSA

Based on the three censal periods (2000, 2010, and 2020), the region's population continued to decelerate. From 2010 to 2020, the population grew by 1.16 percent annually, lower than the annual population growth rates from 2000 to 2010, and 1990 to 2000, at 1.46 and 1.83 percent, respectively. The island provinces of Masbate and Catanduanes recorded

annual growth rates of less than one percent, from 2010 to 2020. On average, for the past 30 years, the region's population declined by 0.34 percent annually. The province of Sorsogon recorded the fastest deceleration at 0.54 percent annually. Despite the deceleration, population doubling time is expected by the year 2080.

Birth and Death Rates, and Migration

The decelerating population growth in the region may be attributed to the low birth rate, high death rate, and high migration. The Bicol Region recorded a declining birth rate from 22.2 per 1,000 population in 2010 to 14.4 per 1,000 population in 2020. For the provinces, the biggest decline in the birth rate was recorded in Masbate at 4.6 per 1,000 population between 2010 to 2020, while for the cities, Naga City recorded the biggest decline at 13.7 per 1,000 population.

The Bicol Region also recorded a steady rise in the number of registered deaths (31,000 to 37,000 registered deaths) from 2010 to 2017, except in 2015. However, in 2018, registered deaths escalated by nearly 7,000, equivalent to a crude death rate of 7.4, or about seven per 1,000 population. This continued to increase in the following

years but slightly decreased in 2020. The province of Masbate recorded a steady increase in the death rate.

Based on the 2018 National Migration Survey (NMS), Bicol placed second in having the most lifetime out-migrants or people transferring to other regions. It is the top-losing region with 1.42 million migrants, while the top two gaining regions are Cavite-Laguna-Batangas-Rizal-Quezon (CALABARZON) and National Capital Region (NCR) with 2.99 million and 1.77 million migrants, respectively. According to the NMS, the top reason for internal migration is due to employment/ job change/ job relocation. Other causes are housing-related, school, living with parents, and living with a spouse/ partner.

Population Density

In 2020, the population density was recorded at 350 persons per square kilometer (sq. km.), or an increase of about 80 persons per sq. km. for the past 20 years, or four persons per sq. km. per year. Albay is the most densely populated

province at 557 persons per sq. km. higher than the regional average of 350 persons. The provinces of Camarines Norte, Masbate, and Catanduanes recorded population densities below the regional population density.

Urban Distribution

The urban population in the region was recorded at 23.2 percent of the total population in 2015. A total of 1.34 million urban population was recorded in the region, higher by 513,523 or 38.18 percent compared to 2010. Camarines Norte posted the highest level of urbanization at 30.2 percent. Conversely, Catanduanes

recorded the lowest at 6.8 percent. For the cities Naga, Legazpi, Iriga, and Masbate had more than 50 percent urban population. For the municipalities, Daet, Pili, and Pamplona had more than half the urban population in 2015. A total of seven cities and municipalities had an urban population exceeding 50 percent in 2015.

Sex Distribution

The Bicol Region has almost a balanced population among males and females, with a sex ratio of 103 males for every 100 females. In 2020, children aged 5-9 years covered the largest bracket with 11.50

percent, followed by children aged 10-14 years at 11.43 percent. During the same period, 538,124 or 8.87 percent of the total population were senior citizens, of which 56.43 percent are females.

Age Distribution

The productive population (ages 15-64) comprised 3.64 million persons. The young dependents (ages 0-14) constituted 2.07 million persons, while the old dependents (ages 65 years old and over) have a population of 352,165. The overall dependency ratio of Bicol in 2020 was

66, which indicates that for every 100 working-age population, they have to support 57 young dependents and 9 old dependents. However, it was observed that over the four decades dependency ratio in the region is decreasing, from 83 in 2000 to 66 in the year 2020.

Ethnic Population

As of 2022, there are 135,000 ethnic population in the region composed of the following ethnic communities: *Agta*, *Agta-Tabangnon*, *Agta-Cimaron*, *Dumagat*, and the *Kabihug/Manide*. The *Agta* tribe is characterized by being short, and stocky, with thick lips, flat nose, black curly hair, and black complexion. The *Agta* originally dominated the entire region and is sporadically located in the provinces of Albay, Sorsogon, Camarines Sur, Masbate, and Catanduanes. The *Kabihug/Manide* live in remote areas in Camarines Norte. The term “*Manide*” or “*Mamanide*” is likewise the name of their language. The *Agta-Tabangnon* is a result of intermarriage between a lowlander and an *agta*, who are nomadic, very dependent, and traverse the entire region. They differ from their parent *agta* in physical features

such as wavy hair, fair complexion, and taller structure. The *Agta-Cimaron* are the offspring of the nomadic *Agta* who intermarried foreigners. They differ from their parent *Agta* in terms of facial and physical features of foreign lineage mostly Spanish or other foreign bloodlines.

Of the 28,987 ethnic families, 69,048 (51.15%) are male, and 65,952 (48.85%) are female. Of the four provinces with residing indigenous peoples (IP) communities, Camarines Norte is the province with an IP population with a greater number of females than males. The province of Camarines Sur hosts the largest land area declared as an ancestral domain. Among the municipalities, Buhi, Camarines Sur has the greatest ethnic population with 30,025 individuals.

Population Affected by Natural Hazards and Disasters

For the past 15 years, various disasters have been experienced by the Bicolanos affecting a total of 3.23 million families consisting of 14.25 million individuals. Among the hazards, TCs affected the greatest number of both families and persons comprising 87.46 percent of the total number of families and persons.

The TCs also caused the largest number of evacuees with 81.79 percent and 82.99 percent of the total evacuated families and persons, respectively. A total of 2.3 million families and 10.78 million individuals were evacuated due to the hazards that struck the region.

Population Exposed to Hazards

- **Landslides.** Exposure assessment using landslide and population data showed that of the region's total population, around 1.5 million individuals are exposed to areas with high landslide susceptibility. The cities of Legazpi and Tabaco in Albay have the largest populations exposed to areas with high landslide susceptibility, reaching around 160,000 individuals, wherein 52 percent of Tabaco City's population is exposed to high landslide susceptibility.
- **Floods.** Of the region's total population, around 631,000 are exposed to areas with a high flood. This means that more than half a million Bicolanos are likely to experience flood heights of more than 1.0 meter and/or flood duration of more than three days. Among the 114 cities/municipalities in the region, Tabaco City in Albay and Daet and Vinzons in Camarines Norte have the highest number of populations exposed to high flooding, with a total of 106,221 individuals at risk.
- **Lahar.** For Bulusan Volcano, the municipality of Irosin has the highest number of exposed populations to lahar with 7,062 individuals at-risk. The municipalities of Juban and Bulusan have a total of 3,140 persons or 9.18 percent of the total population at risk. For Mayon Volcano, about 10.43 percent of the total population in Tabaco City is highly exposed to lahar. Around 43,000 individuals who live in the city of Legazpi and municipalities of Daraga, Guinobatan, Sto. Domingo, Malilipot, and Camalig, are also exposed to high lahar.

Poverty and Marginalized Communities

- **Poverty.** Poverty incidence among the population significantly declined by 14.1 percentage points, from 41.1 percent in 2012 to 27 percent in 2018, while poverty incidence among families reduced from 32.3 percent to 20 percent in 2012 and 2018, respectively (Table 1.2). All provinces registered a reduction in poverty incidence. During this period, more Bicolanos were lifted out of poverty because of the sustained economic growth that translated to an increase in employment opportunities. However, due to the impacts of COVID-19 and TCs QRU (spell out before using an acronym), poverty incidence among the population increased to 29.3 percent, or 29 out of every 100 Bicolanos are considered poor.

Table 1.2 Per Capita Poverty Threshold, and Poverty Incidence among Families, and Population in the Bicol Region by Province, 2012, 2015, 2018, and 2021

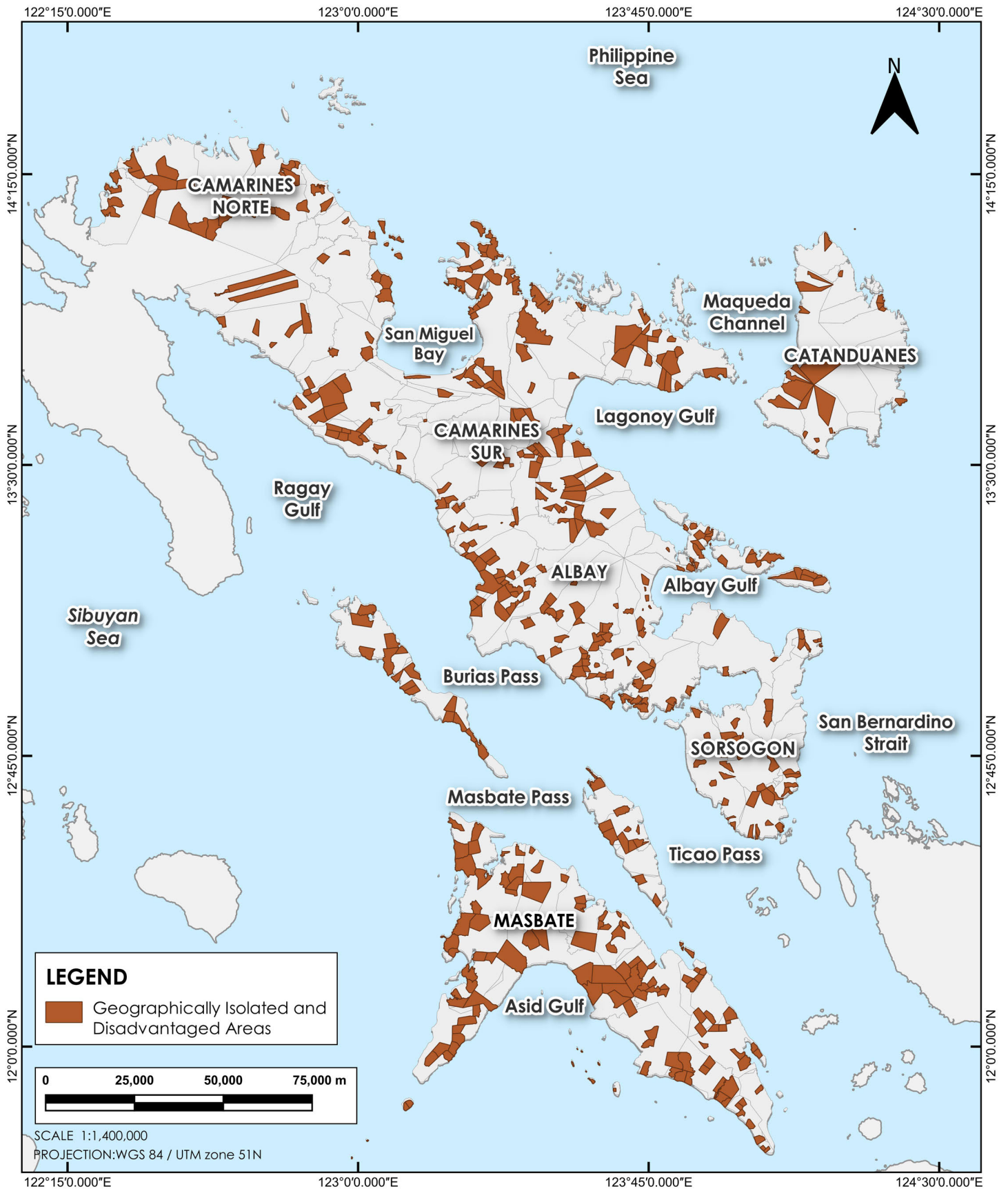
AREA	PER CAPITA POVERTY THRESHOLD (IN PHP)				POVERTY INCIDENCE AMONG FAMILIES (%)				POVERTY INCIDENCE AMONG POPULATION (%)			
	2021	2018	2015	2012	2021	2018	2015	2012	2021	2018	2015	2012
Philippines	28,871	25,813	22,747	18,935	13.2	12.1	18.0	19.7	18.1	16.7	23.5	25.2
Bicol Region	27,675	24,461	22,503	18,257	21.9	20.0	31.0	32.3	29.3	27.0	39.8	41.1
Albay	27,346	24,902	22,328	18,610	15.4	15.0	18.5	33.9	20.4	21.2	26.2	41.0
Camarines Norte	27,571	25,051	23,940	18,390	16.6	22.4	35.1	21.7	22.2	30.5	43.6	28.7
Camarines Sur	28,651	24,271	22,874	18,717	29.8	21.0	28.5	31.7	38.7	28.4	36.8	41.2
Catanduanes	28,014	24,380	21,668	18,303	16.8	14.4	33.6	27.1	23.5	20.3	43.4	33.8
Masbate	25,545	22,911	20,406	17,487	20.2	25.8	35.5	40.6	27.7	33.0	45.4	51.3
Sorsogon	27,133	26,069	23,268	17,535	21.7	19.6	46.2	31.3	30.0	26.1	56.9	40.7

Source: PSA Region 5

- **Geographically Isolated and Disadvantaged Areas (GIDAs).** As of 2020, there were 489 out of the 3,471 barangays in the region classified as GIDAs. These are communities with marginalized populations that are physically and socio-economically separated from mainstream society. Among the regions in the country, Bicol placed second with the highest number of barangays classified

as GIDAs, next to BARMM. In terms of the percentage of GIDA barangays to the total number of barangays, the Bicol region ranked eighth with 14.09 percent. Masbate registered the highest number with 142 GIDA barangays, or 29.04 percent of the total GIDAs in the region. Catanduanes registered the least with 24 GIDA barangays. All cities except Naga City have GIDA barangays (Map 1.1).

Map 1.1: Geographically Isolated and Disadvantaged Areas Bicol Region



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Source: Department of Health

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Note: Administrative boundaries are approximated.

Employment

For the past nine years, Labor Force Participation Rate (LFPR) slowly declined from 67.2 percent in 2011 to 59.5 percent in 2020. The decrease in the LFPR can be attributed to the prolonged stay of students in school due to the implementation of the K to 12 Program of the Department of Education (DepEd) under Republic Act No. 10533 or Enhanced Basic Education Act of 2013, which extends the number of years of students in secondary education (Cabegin, Gaddi, 2019).

The employment rate was highest in 2016 at 95.7 percent and lowest in 2020 at 90.4 percent. Before the COVID-19 pandemic, the employment rate for the past nine years averaged at 94.7 percent. Over the years, the underemployment rate has decreased from 35.4 percent in 2011 to

27.6 percent in 2020, which indicates that the quality of work in the region is improving.

The Agriculture and Services sectors are the major job generators in the Bicol Region. The shift from an agri-based economy to a Services-led economy also resulted in declining employment in the agriculture sector, which can be seen starting in 2009. Some factors that contributed to the decline in employment are the aging farmers and the lack of interest among the younger generations in agricultural-related jobs. More people are now engaged in jobs related to the tourism, transportation, wholesale and retail, education, health, and social work sectors.

Environmental Trends

Land Classification: Alienable and Disposable, Forest and Timberland

About 69 percent of the region's total land area is A&D lands wherein around 22 percent are found in the province of Camarines Sur, and 15 percent in Masbate.

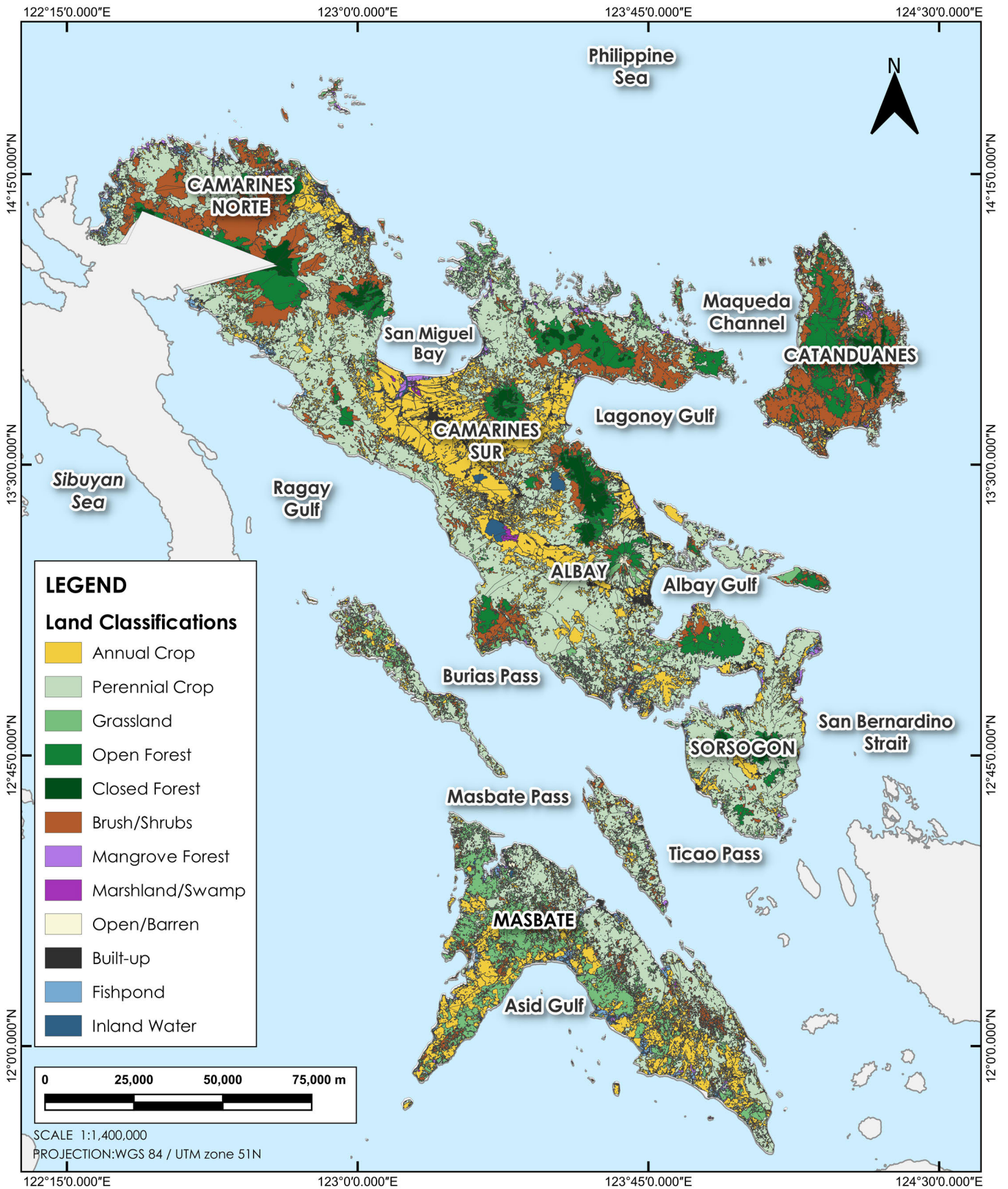
Forests and timberlands comprise about 31 percent of the total land area where the majority (nine percent) are also found in Camarines Sur.

Land Cover

Majority of the region's land area is utilized for agriculture, with annual and perennial crops covering approximately 10,347 sq. km. (Map 1.2), while the built-up areas covered about 358 sq. km. There is the encroachment of built-up areas in

forest and timberland covering an area of about seven sq. kms., observed in the municipalities of Aroroy in Masbate, Pilar in Sorsogon, Vinzons in Camarines Norte, and Ocampo in Camarines Sur.

Map 1.2: Land Cover Bicol Region



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Source: National Mapping and Resource Information Authority

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Data from the Department of Agrarian Reform (DAR) Region 5 showed that around 640 hectares (ha) of agricultural lands were converted to various land uses from the year 2000 to 2021. The province of Camarines Sur recorded the highest

approved converted land comprising 43 percent of the total approved land conversion. Most of these agricultural lands were converted to residential land (Table 1.3).

Table 1.3. Area of Agricultural Lands Converted to Other Purposes in the Bicol Region by Province, in Hectares, 2000-2021

AREA	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	INSTITUTIONAL	OTHERS
Bicol	368.12	107.83	66.51	78.72	17.48
Albay	52.42	41.00	6.26	10.75	0.73
Camarines Norte	99.69	6.25	-	17.20	3.63
Camarines Sur	153.87	36.15	45.93	29.39	9.81
Catanduanes	10.65	-	-	9.48	-
Masbate	4.44	-	2.07	4.98	-
Sorsogon	47.05	24.43	12.25	6.92	3.31

Source: DAR

Protected Areas

There are 19 protected areas in the region covering a total of approximately 1,103.41 sq. km, wherein 11 of these are proclaimed through RA 11038 or the Expanded National Integrated Protected Areas System (ENIPAS) Act of 2018. The NIPAS provides the classification and

administration of all designated protected areas to: (a) maintain essential ecological processes and life-support systems; (b) preserve genetic diversity; (c) ensure sustainable use of resources found therein; and (d) maintain their natural conditions to the greatest extent possible.

Ancestral Domain

In the Bicol Region, the ancestral domain covers an area of around 264 sq. km. occupied by six main groups of Indigenous Cultural Communities/ Indigenous Peoples (ICCs/IPs) namely: (a) *Kabihug/Manide*; (b) *Dumagat*; (c) *Agta-Cimaron*; (d) *Agta-Tabangon*; (e) *Agta-Taboy*; and (f) *Agta/Agta-Tabangon*. These ICCs/IPs occupy portions of land in Albay,

Camarines provinces, and Sorsogon. RA 8371 or the Indigenous Peoples' Rights Act (IPRA) of 1997 acknowledges the ICCs/IPs' rights to ancestral domain, but various issues are experienced by these minority groups including land dispute and loss of ancestral lands due to displacement.

Hazards

- **Landslides.** Around 27 percent or 4,632 sq. km. of the region's total

land area has high to very high susceptibility to landslides and

debris flow. Among the provinces, Catanduanes has the highest landslide susceptibility with approximately 80 percent of its total land area having very high to moderate exposure.

- **Liquefaction.** Around 1,274 sq. km. of the region's land area is high to moderately susceptible to liquefaction.
- **Tsunami.** It is estimated that around 315 sq. km. of the region's coastal area is prone to a tsunami with inundation depths of five meters and above. These areas are located along the eastern seaboard, directly facing the open sea. Among the municipalities with high tsunami exposure (with more than 6 meters' inundation depth)

are Calabanga and Garchitorena in Camarines Sur, Prieto Diaz in Sorsogon, and Viga in Catanduanes.

- **Volcanic Hazards.** The Bulusan and Mayon Volcanoes provide volcanic hazards consisting of lava flows, pyroclastic density currents (PDCs), lahar, volcanic gas, volcanic tsunami, and debris avalanche, among others. For Bulusan Volcano, the municipalities of Casiguran, Bulusan, Juban, Barcelona, and Irosin are exposed to the lava flow, while for Mayon Volcano, there are nine municipalities in Albay covering an area of approximately 123 sq. km. exposed to the lava flow in case of eruption (Table 1.4).

Table 1.4 Land Area Exposed to Volcanic-Related Hazards, By Type of Hazards, for Mayon and Bulusan Volcanoes, in Square Kilometers, 2021

VOLCANO	AREA EXPOSED TO HAZARDS (IN SQ. KM)		
	LAVA FLOW	PDC	LAHAR
Bulusan	73.74	209.62	124.19
Mayon	123.44	163.03	317.02

Source: Philippine Institute of Volcanology and Seismology (PHIVOLCS)

- **Tropical Cyclones.** From 1945-2020, a total of 161 TCs crossed the Bicol Region wherein 55.3 percent of these TCs occurred in the last quarter of each year and 21 percent occurred in the second quarter. Based on the classification, 4.3 percent of these TCs fall under the typhoon category, followed by tropical storms at 37.9 percent. Historical data from the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) showed that the top three strongest recorded TCs that crossed the Bicol Region occurred in 1970 (TC Sening), 1987 (TC Herming), and 1981 (TC Anding) with a maximum sustained wind of 275 kilometers per hour (km/h), 260 km/h, and 248 km/h, respectively.
- There are no complete records of damage and loss assessment reports of previous single TC events except for TC Nina (International Name: Nock-Ten) which affected the Bicol Region in December 2016. The TC Nina packed with maximum sustained winds of 185 km/h and having a frequency of occurrence of a 20-year return period affected most parts of the region. Based on the Post Disaster Needs Assessment (PDNA) Report prepared by the Regional Disaster Risk Reduction and Management Council (RDRRMC), TC Nina resulted in

economic and social disruption with 340 recorded casualties (14 dead and 326 injured). It also resulted in a total of PHP24.17 billion (at 2016 price levels) in damages and losses (PHP9.20 billion in damages and PHP14.97 billion in losses). In the last quarter of 2020, TCs QRU caused widespread destruction to Bicol in a span of three weeks. Based on the PDNA report of the RDRRMC, the total combined estimated damages and losses amounted to PHP80.40 billion (at 2020 price levels).

- **Flooding.** Another hydro-meteorological hazard that poses a threat to the region affecting approximately 1,405.72 sq. km. or eight percent of the region's total land area which is categorized as very high and highly susceptible to flooding. Most of these areas are found within the Bicol River Basin area. Camarines Sur is the most prone to flooding where 8.2 percent of its land area rises high and highly susceptible to floods (Table 1.5).

Table 1.5. Area Susceptible to Flooding in the Bicol Region, by Category of Flood, by Province, in Square Kilometers, 2021

AREA	AREA SUSCEPTIBLE TO FLOODING (IN SQ KM)			
	VERY HIGH FLOOD	HIGH FLOOD	MODERATE FLOOD	LOW FLOOD
Bicol	704.65	701.07	792.38	853.28
Albay	44.75	201.32	104.85	40.33
Camarines Norte	96.25	110.37	101.23	88.76
Camarines Sur	258.34	179.29	378.60	459.57
Catanduanes	36.77	9.61	27.71	60.66
Masbate	162.09	33.09	112.16	182.57
Sorsogon	106.45	167.39	67.83	21.40

Source: MGB

Peace and Order

Conflict Affected and Conflict Vulnerable Areas

As of March 2022, the provinces of Camarines Sur, Masbate, and Sorsogon are areas classified as conflict-affected and conflict-vulnerable areas (CAA-CVAs) in the region. Among these, Masbate province has the highest number with 60 CAA-CVA barangays, followed by Camarines Sur with 28 barangays, and Sorsogon with nine barangays. Of the 97 CAA-CVAs, the municipality of Caramoan has the highest number of barangays with 15, Cawayan and Uson with 12 and 11 barangays, respectively.

The issues experienced in the CAA-CVAs were the lack of facilities and services which include: (a) infrastructure such as farm-to-market roads (FMRs), flood control, seawalls, drainage canals, spillways; irrigation, water supply, electrification, and telecommunication facilities; (b) social facilities/services such as health and sanitation facilities, (c) evacuation centers; and (d) educational facilities such as schools and daycare centers. Other issues are the following: (a) high cost of farm inputs and low price of farm outputs; (b) lack of alternative

livelihood and unemployment; and (c) land tenure.

Of the 97 barangays considered as CAA-CVAs, 37 barangays are Konsolidado

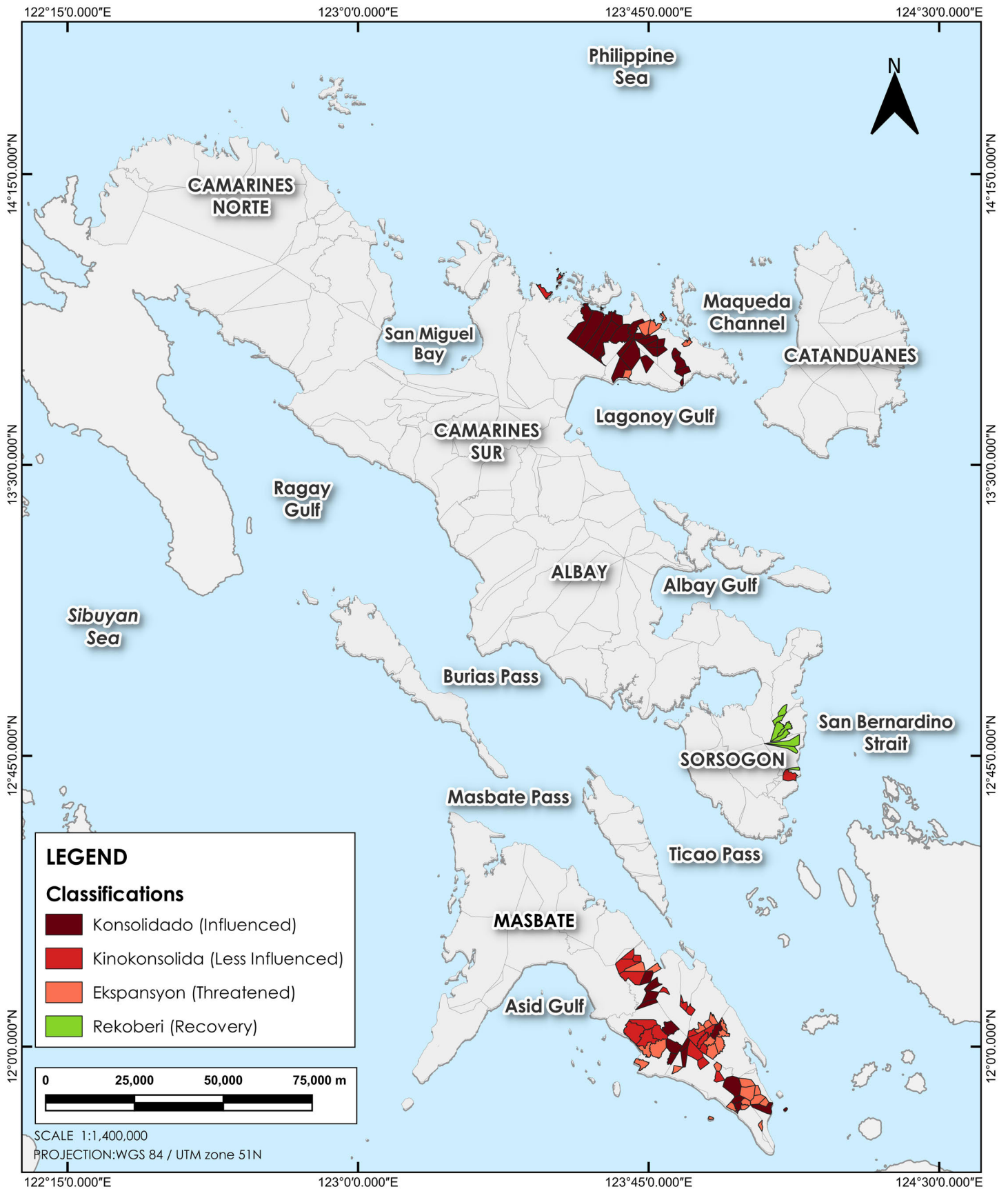
(Influenced), 29 barangays as Ekspansyon (Expansion), 23 barangays as Kinokonsolida (Less Influenced), and eight barangays as Rekoberi (Recovery) (Map 1.3).

Conflict Affected and Conflict Vulnerable Areas

Geographic focus areas (GFAs) are areas classified as GIDAs and/ CAA-CVA. The majority of GFAs categorized as Focus Area A (GIDAs and CAA-CVAs) are located in Masbate and Camarines Sur (Map 1.4). These barangays are the highest priority areas for development. The establishment of essential infrastructure creates a link to markets, provides employment opportunities, and improves access to social services. On Focus Area B or the CAA-CVAs consisted of 71 barangays, more than half of which were located in the province of Masbate, whereas 21 and nine barangays are located in Camarines Sur and Sorsogon, respectively. Camarines Sur and Masbate got the highest number of barangays classified as Focus Area C or the GIDAs, with 27 percent each.

Sixty percent of the municipalities (Garchitorena, Presentacion, Esperanza, Palanas, Pio V. Corpuz, and Uson) classified as Focus Area A have poverty incidence above 20 percent. It shows that the series of conflicts aggravate poverty in these areas by causing incapacity to access goods, opportunities, and resources, increasing unemployment, and displacement of families. As a result of the conflict, the displaced individuals and families are more vulnerable and the areas where they are from are lagging, hence undermining development in these communities. This calls for a more unified approach to combat insurgency and poverty in CAA-CVAs.

Map 1.3: Conflict Affected and Vulnerable Areas Bicol Region



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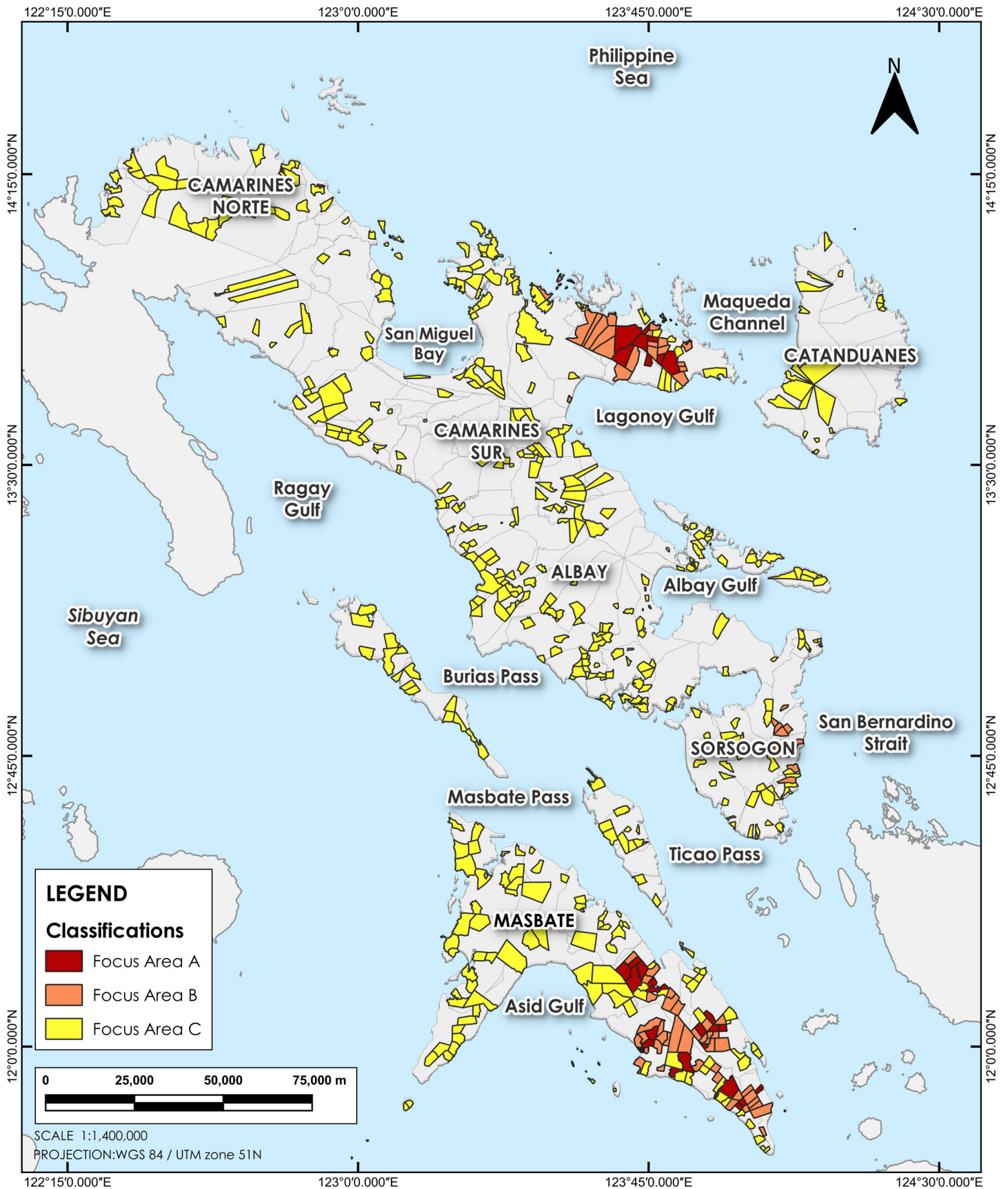
Source: Philippine Army 9th Infantry Division

Year of Publication: 2022

Data as of: 2022

Note: Administrative boundaries are approximated.

Map 1.4: Geographic Focus Areas Bicol Region



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Source: Department of Health and Philippine Army 9th Infantry Division

Year of Publication: 2022

Data as of: 2022

Note: Administrative boundaries are approximated.

02

Regional Spatial Development Framework



Regional Spatial Development Framework

The Bicol Regional Physical Framework Plan (RPFP) 2021-2050 provides the spatial development framework to guide sub-regional areas in the utilization of the region's land and other physical resources. It is designed to guide the direction and growth of the sub-regional areas and the entire region in the long term. The Bicol RPFP is a Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) enhanced RPFP which is anchored on the AmBisyon Natin 2040, the Sustainable Development Goals (SDGs), and the National Disaster Risk Reduction Framework (NDRRF). It also adopts the core strategies of the Luzon Spatial Development Framework (LSDF) which serves as the integrating framework of the various regional physical plans in Luzon. The RDP 2023-2028 will be implemented consistent with the DRR-CCA enhanced RPFP 2021-2050 over the medium term.

The overall spatial development framework is a combination of the core strategies espoused under the LSDF and the spatial development strategies.

Physical Characteristics of the Region

Location

The Bicol Region lies within the coordinates 12° to 14° north latitude and 122° to 124° east longitude, located at the southern tip of Luzon (Map 2.1: Location Map). The Bicol Peninsula is bounded

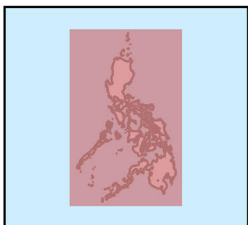
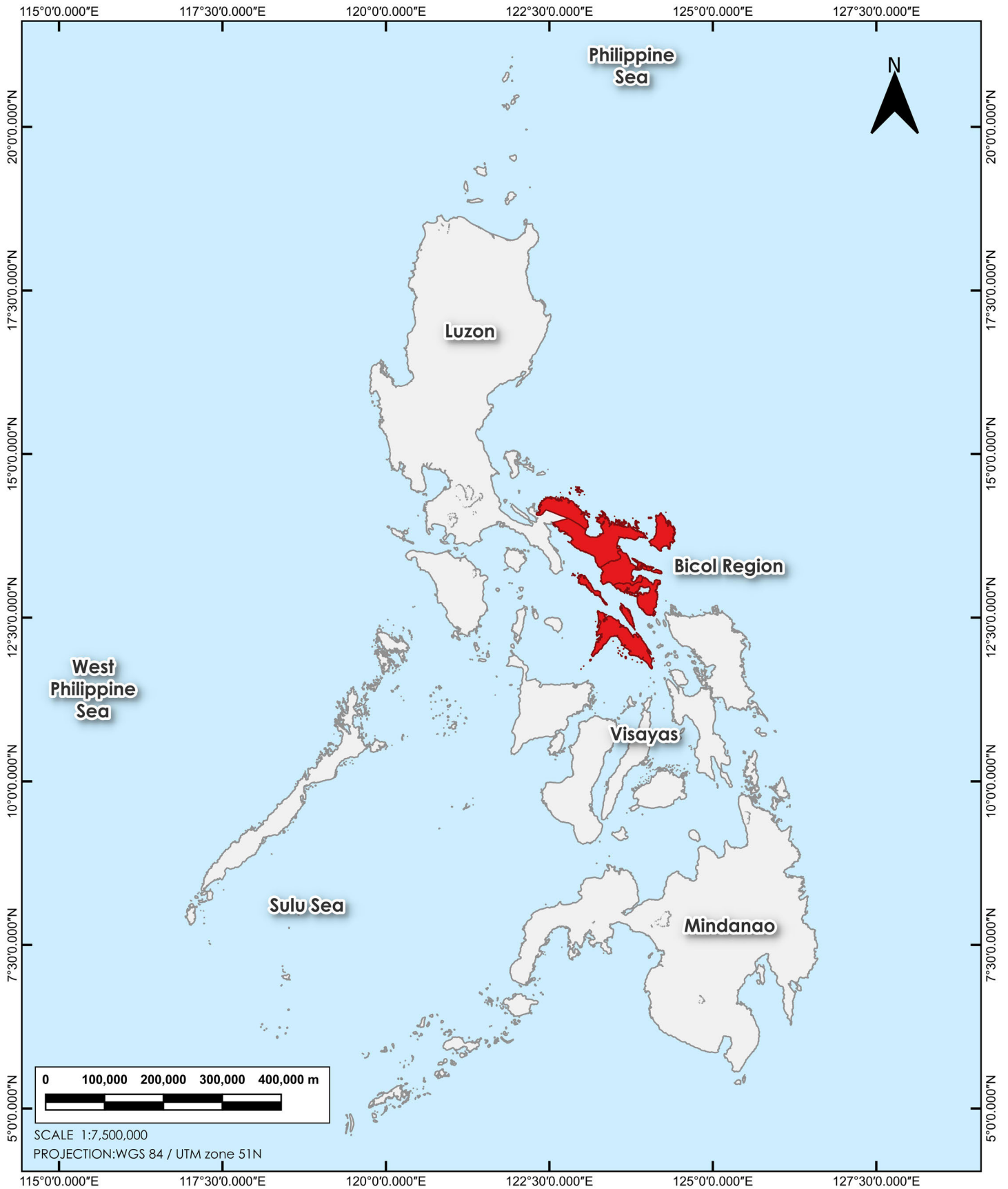
by Quezon Province to the north, the Philippine Sea to the east, the Samar Sea to the south, and the Sibuyan Sea to the west.

Administrative Boundary and Land Area

The Bicol Region is composed of six provinces, of which four are contiguous mainland provinces, namely Albay, Camarines Norte, Camarines Sur, and Sorsogon, and two are island provinces: Catanduanes and Masbate (Map 2.2: Administrative Map). It has a total land area of approximately 17,366 sq. km. or

about six percent of the total land area of the Philippines. Camarines Sur is the largest province with a land area of 5,327 sq. km. or 31 percent of the regional area, while Catanduanes is the smallest with an area of 1,454.6 sq. km or eight percent of the regional area (Table 2.1).

Map 2.1: Location Map Bicol Region



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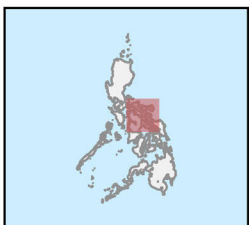
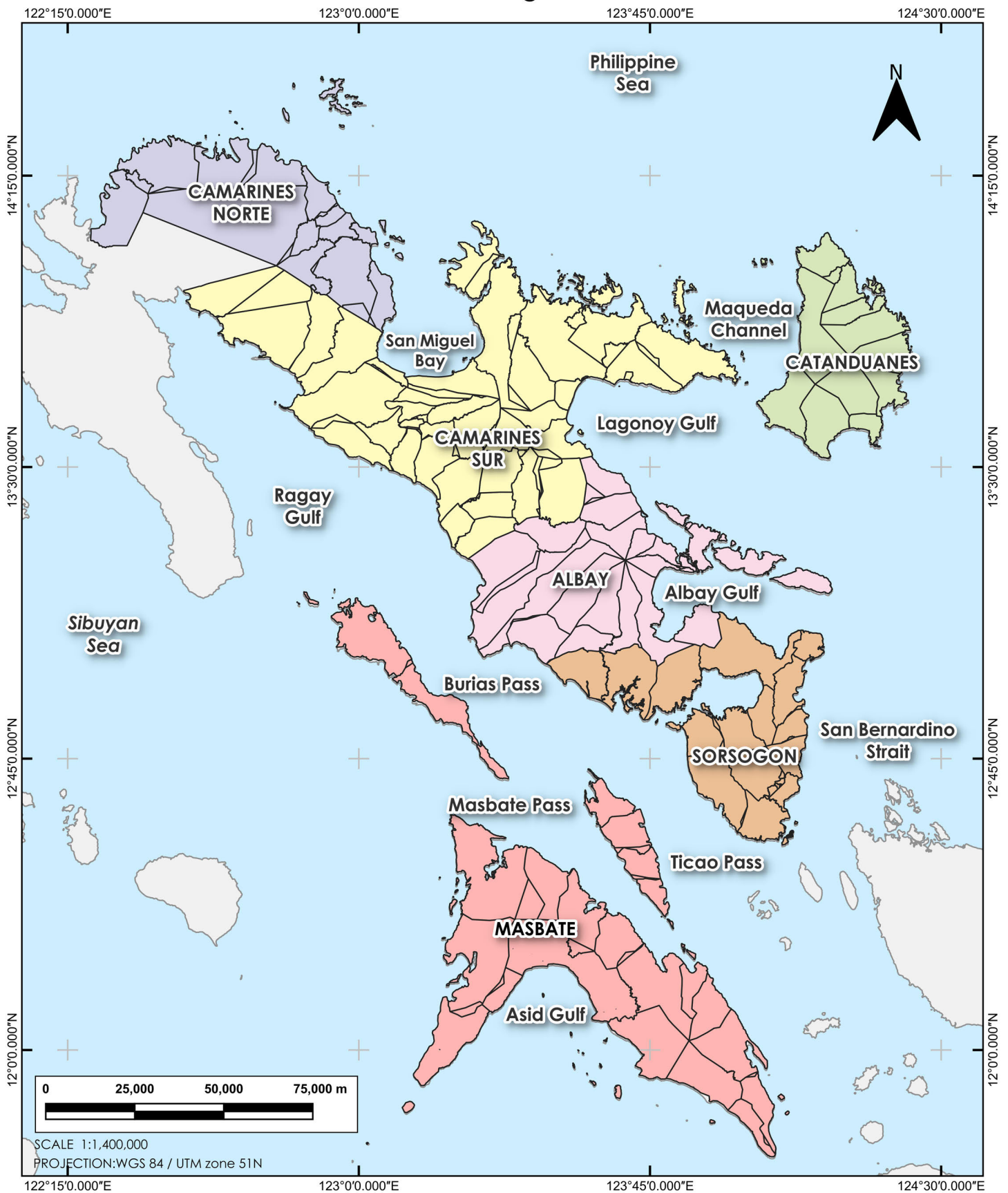
Source: Department of Environment and Natural Resources

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Data as of: 2015

Note: Administrative boundaries are approximated.

Map 2.2: Administrative Map Bicol Region



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LEGAZPI CITY, ALBAY

Source: Department of Environment and Natural Resources

Year of Publication: 2022

Data as of: 2015

Note: Administrative boundaries are approximated.

Table 2.1. Land Area by Province and City, Bicol Region

PROVINCE	TOTAL AREA (IN SQ KM)	% OF REGIONAL TOTAL
Bicol	17,365.53	100%
Albay	2,468.09	14.2%
Camarines Norte	2,158.82	12.4%
Camarines Sur	5,327.00	30.7%
Catanduanes	1,454.62	8.4%
Masbate	3,984.35	22.9%
Sorsogon	1,972.64	11.4%

Source: DENR

The region is composed of 7 cities (1 independent, 6 component), 107 municipalities, and 3,471 barangays. It is subdivided into 16 congressional districts:

five in Camarines Sur, three in Albay, three in Masbate, two in Camarines Norte, two in Sorsogon, and the lone district of Catanduanes.

Demographic Characteristics and Physical Environment (See Chapter 1)

Transportation Network

The region's transportation network (Map 2.3: Integrated Transportation Map) consists of road transport, railways, ports, and airports. The most heavily used means of transport are the roads and ports. However, these facilities require upgrading and need to be more resilient to meet the increasing demand. Some major projects were not implemented, hindering the development of the Bicol Region. The Matnog Port in Sorsogon needs immediate improvement as current port conditions cause inconvenience to motorists traveling to Visayas and Mindanao. For several decades, the Philippine National Railways (PNR) Mainline South has been non-operational. The Bicol International Airport (BIA) despite taking two decades to complete, is still plagued with issues such as the obstruction by the National Grid Corporation's power transmission line, and the leaking roof in the passenger terminal building. The New Naga Airport Development Project already approved by the Investment Coordination Committee

(ICC) in 2015 is also yet to commence physical construction.

- **Road Transport.** The AH26 (Maharlika Highway) is the only means of land transport to Manila and other parts of Luzon. The country's participation in the Asian Highway Agreement paved the way for the upgrading of the Maharlika Highway into a four-lane road. The AH26 also provides linkages to Luzon, Visayas, and Mindanao.
- Of the region's total national road length of 2,417.71 km in 2020, about 60.14 percent (1,454.08 km) are concrete paved, 38.74 percent (936.63 km) are asphalt surfaced, and the remaining 1.11 percent (23.77 km) are gravel (23.77 km) and earth roads (3.23 km). Among the regions, Bicol ranked fifth with high road densities at 13.35 km per sq. km., but is far from the road densities in NCR

(188.24 km per sq. km.) and almost only half of the densities in Regions 6 and 7. Over the last ten years, the region's density only increased by 0.60 km per sq. km., much less than the 1.04 increase in the NCR. The road network in the region is unable to cope with the increasing number of registered motor vehicles, which almost doubled from 2013 to 2019. In 2020, the total number of registered motor vehicles in the region was recorded at 455,474, wherein 407,244 (88.8%) are private vehicles, 45,543 (10.6%) are "for hire" or public utility vehicles (PUV), and 2,687 (0.6%) are government vehicles. The increasing motor vehicle registration shows the need for more and better roads to accommodate the increasing traffic and prevent congestion in the future, and must be designed to consider its use for bikes and motorbikes.

- Of the total national roads in Bicol, 822.91 km. (34%) are susceptible to flooding. The primary roads include *Daang Maharlika* and *Andaya* Highways of which 54.12 km have very high to high susceptibility to flooding. The secondary roads with very high, high, medium, and low flooding exposures were estimated at 321.27 km, while the tertiary roads were at 290.99 km. In terms of landslides, around 140 km (5.78%) of the national roads in the province of Albay, 96 km in Catanduanes, and 25 km in Camarines Sur are exposed to high landslides.
- The flooding on Bicol national roads, specifically those with high susceptibilities, is mostly located in all provinces except Masbate. The municipality of Prieto Diaz in Sorsogon has the highest flood susceptibility at 85 percent of its total road length of 15.5 km, while the

roads in Gubat and Juban, Sorsogon consist of 21.4 km (70.6%) and 11.6 km (45.4%) flood susceptibility, respectively. The national roads in the municipalities of Oas, Libon, and Tabaco City in Albay, Nabua, Milaor, Minalabac, San Fernando, Calabanga, and Canaman in Camarines Sur; Viga in Catanduanes; and Capalonga in Camarines Norte are all susceptible to flooding.

- In terms of landslides, around 140 km (5.78%) of the national road in the province of Albay is exposed to high landslide, with Libon having the highest exposure among municipalities at 29.33 km (47.3%) of its total road length. About 96 km of roads in the province of Catanduanes are exposed to high landslides, followed by the province of Camarines Sur at 25 km.
- **Railways.** The PNR Mainline South Rail Transport System from Metro Manila to the Bicol Region is non-operational. It is currently undergoing upgrading and rehabilitation under the South Long Haul (SLH) Project. The only operational PNR service is the commuter line service with two daily trips of two coaches, between Naga City to Sipocot Stations, with a travel time of about one hour and five minutes covering a distance of 30 km. The PNR SLH Project is a 560-km standard-gauge rail track project with 33 stations from Muntinlupa, Manila to Daraga, Albay, with a railway extension to Sorsogon. It is comprised of four alignment packages, two of which cover the Bicol Region, namely: (a) Package 1 – Banlic, Laguna to Daraga, Albay; and (b) Package 2 – Daraga, Albay to Matnog, Sorsogon. Once completed, the commuter train will render a speed of 120-160 km/h, 80-100 km/h

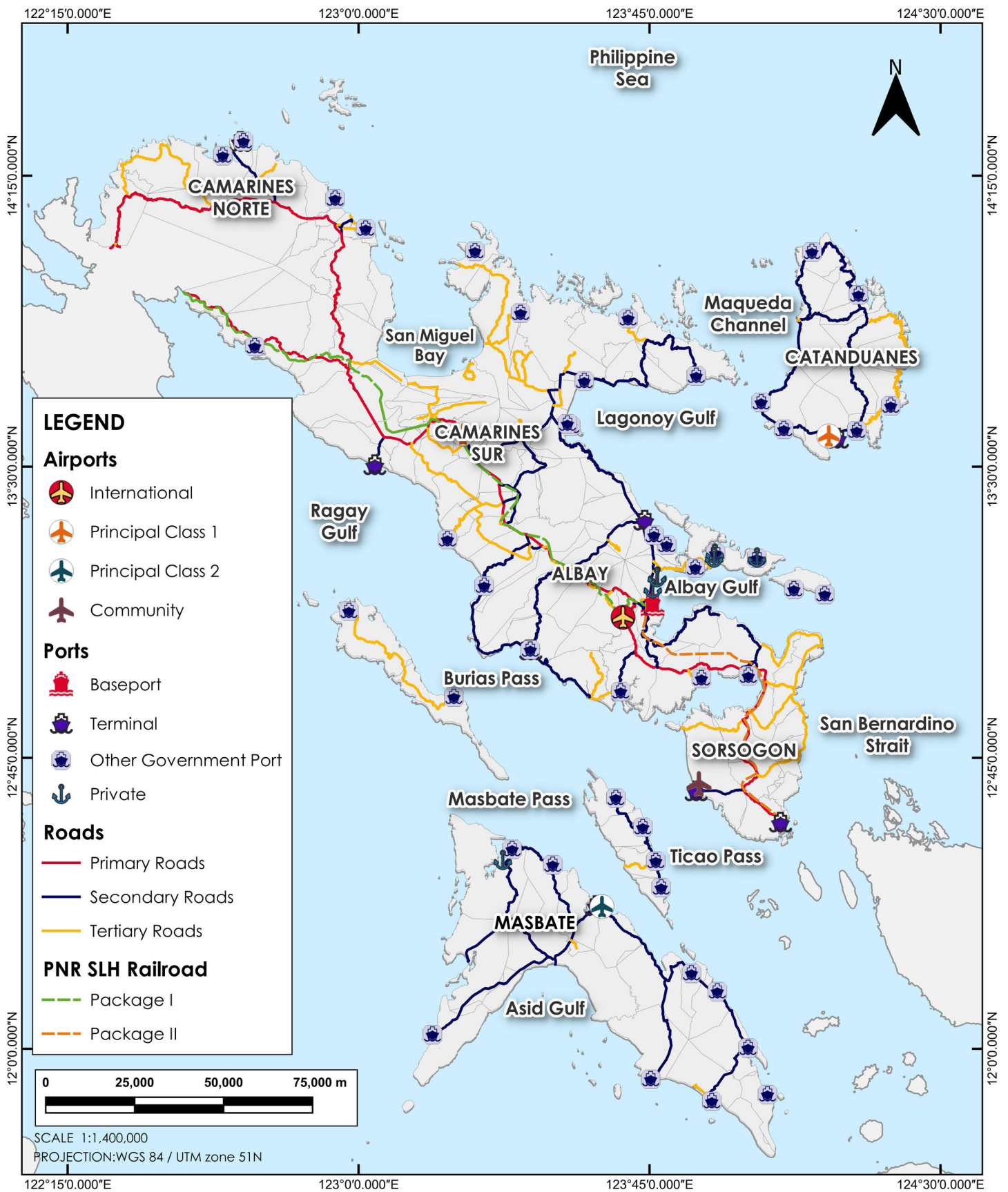
for freight or cargo, and 80-100 km/h on local sections. It will generally improve inter- and intra-regional connectivity and reduce travel time, thus contributing to the overall economic growth of the region. Historical preservation of some existing stations must be observed, and relevant assessments for natural disasters must be incorporated into its design.

- **Ports.** Under the Philippine Nautical Highway System, the Bicol Region is part of the integrated network of roads and ports providing the backbone of the nationwide transport system and connecting the major islands of Luzon, Visayas, and Mindanao. The inter-regional sea transport system of the Bicol Region caters to the Roll-on/ roll-off (RORO) passengers, as well as to domestic and foreign cargoes. In 2022, there are 49 operational ports in the region, with the base port in Legazpi City being the site of the Regional Operations of the Philippine Ports Authority (PPA). The rest consist of eight PPA-managed terminal ports, 32 local government unit (LGU)-operated municipal ports, and eight private ports. These ports require upgrading and modernization, particularly the Matnog Port, which urgently requires modernization of its facilities and services and establishment of an alternate port.
- **Airports.** The region has four operational airports with commercial operations, including the newly opened BIA in Daraga, Albay, which serves as the trunkline airport capable of handling international flights and the major commercial domestic airport in the region. Naga airport in Camarines Sur, Virac airport in Catanduanes, and Moises R. Espinosa airport in Masbate are secondary airports or minor commercial

domestic airports capable of handling smaller aircraft. The feeder airports or community airports located in Daet in Camarines Norte; San Jose in Camarines Sur; and Bacon and Bulan in Sorsogon are used primarily as support to regional and local airports for general aviation.

The operation of BIA that started in October 2021 will increase the inter-regional flights and may also provide international flights serving its neighboring Asian countries. The BIA has night operations facilities and can accommodate large aircraft such as the A320. As of the first quarter of 2022, the BIA has seven day-time flights per day with PAL Express and CebGo. The Cebu Pacific airline proposed five flights per day using both the Airbus and ATR aircraft. Additional routes to Cebu twice a week will soon follow. However, the power transmission towers of the National Grid Corporation of the Philippines (NGCP) have yet to be relocated because they obstruct air navigation. The Naga airport in Camarines Sur and the Masbate airport are currently undergoing major development and upgrading, specifically on runway reorientation for safer aircraft operation, and relocation to avoid a permanent obstruction along its approach, respectively. The Masbate Airport will require a transfer to a new location. The Daet Airport in Camarines Norte has undergone runway improvement in 2021. The San Jose Airport in Camarines Sur and Virac Airport are being renovated. These airports need to be continually upgraded and modernized to accommodate the increasing passenger traffic. Intra-regional flights particularly flights going to and from the island provinces of Catanduanes and Masbate will be restored.

Map 2.3: Integrated Transportation Map Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Civil Aviation Authority of the Philippines, Department of Transportation, Department of Public Works and Highways, and Philippine Ports Authority

Year of Publication: 2022

Note: Administrative boundaries are approximated.

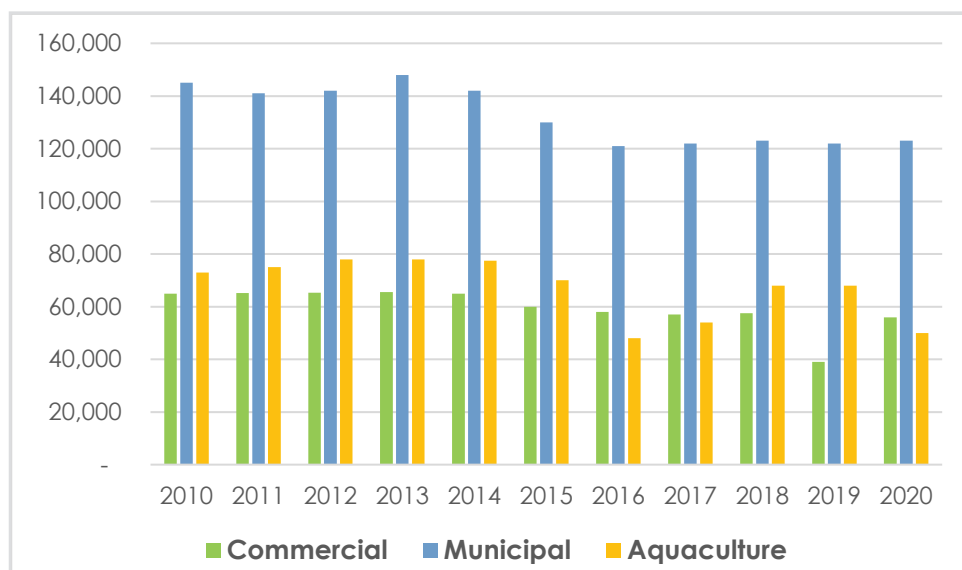
Production Areas

Agriculture, Forestry, and Fisheries

The share of AFF in the GRDP continues to decrease from 25 percent in 2011 to only 18 percent in 2020. The gross value of production declined from PHP88.47 billion in 2019 to PHP86.58 billion in 2020. The poultry and livestock subsectors suffered the biggest loss of 11.29 percent, with the 9.35 percent decrease in livestock attributable to the ASF outbreak. Over the years, cattle production which is a major commodity in the province of Masbate

has remained constant, while fisheries production has been decreasing and unstable from 2010 to 2020. Among the sources of fishery production, municipal fishery shared the highest volume of production (Figure 2.1). With the region's vast coastlines, protected bays, and lakes in Bato, Buhi, and Bulusan, the potential to develop the blue economy is huge, particularly in the aquaculture industry.

Figure 2.1 Volume of Fisheries Production in the Bicol Region, 2010-2020

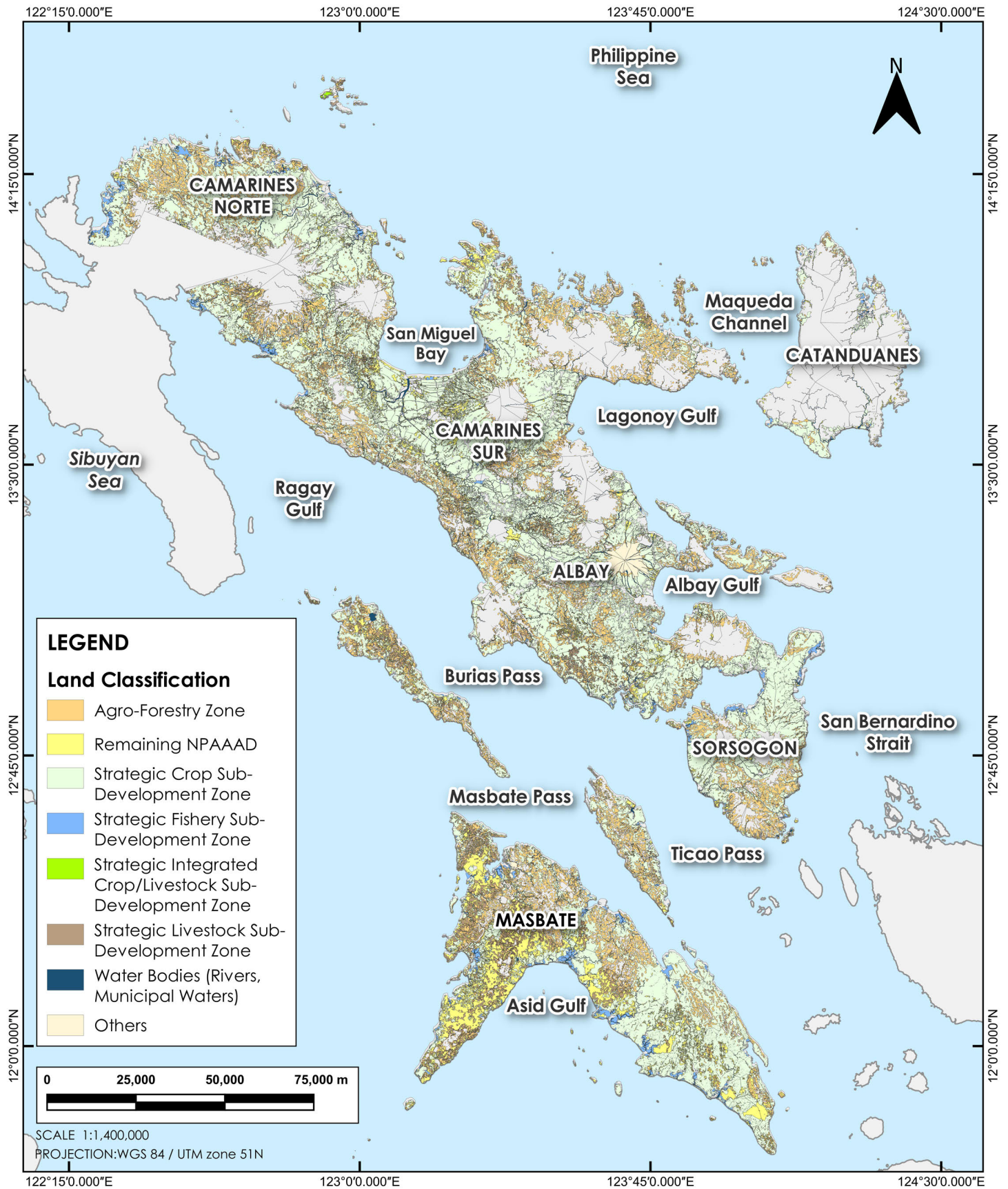


Source: PSA

The major crops of the region are palay, corn, pineapple, coconut, pili, and abaca. The Bicol Region, particularly in the province of Catanduanes, has remained the top producer of abaca fiber and pili products in the country; however, production is low compared to the major commodities in the region. Over a period of ten years, palay production increased only by 19.78 percent from 1.08 million metric tons (MT) in 2010 to 1.29 million MT in 2020. Among the provinces,

Camarines Sur is the highest palay producer. Rice farmers are confronted with the following challenges: (a) lowering the cost of production; (b) increasing farm mechanization; (c) providing irrigation; and (d) reducing the impacts of disasters particularly due to floods and strong winds. The rice self-sufficiency level in the region was reached in 2009. Map 2.4 provides for the Strategic Agricultural and Fisheries Development Zones (SAFDZ).

Map 2.4: Strategic Agriculture and Fisheries Development Zone Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Department of Agriculture - Bureau of Soils and Water Management

Year of Publication: 2022

Data as of: 2022

Note: Administrative boundaries are approximated.

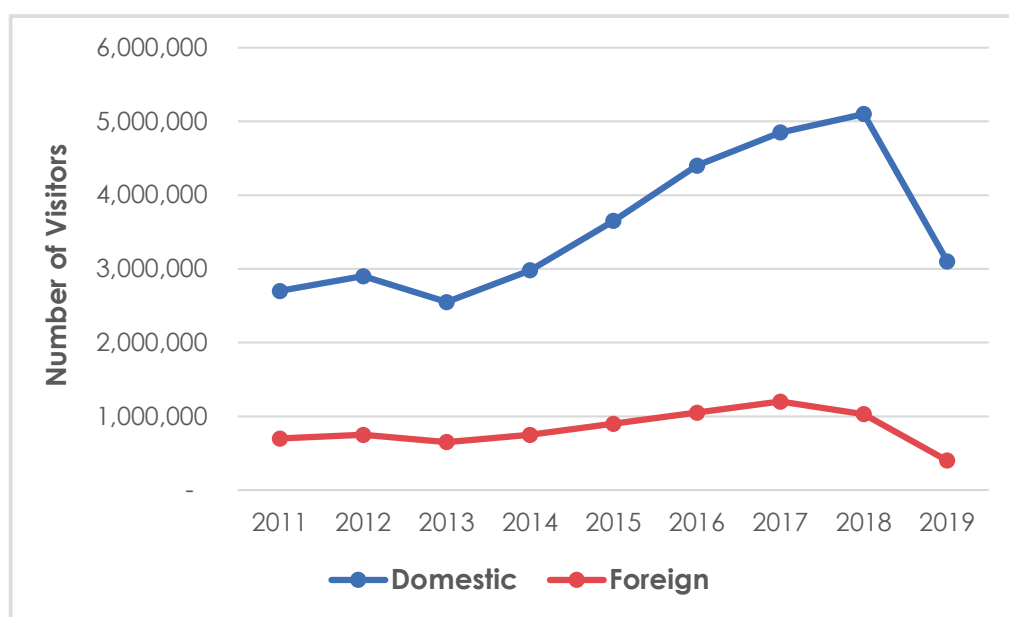
Services

The Services sector consistently recorded the highest output, from PHP136 billion in 2011 to PHP202 billion in 2020, which grew by 48.53 percent from 2011-2020. But due to lockdowns caused by the COVID-19 pandemic, the output of the Services sector declined by 6.9 percentage points from 9.8 percent in 2019.

From 2010-2019, the tourism industry

played a vital role in the growth of the region's economy. Tourist arrivals in Bicol increased by 53.1 percent in foreign tourist arrivals and 78.9 percent in domestic tourist arrivals from 2010 to 2019 (Figure 2.2: Visitors Arrival). But in 2020, the tourism industry also suffered heavily because of the lockdowns, closures of tourism sites, and border restrictions to mitigate the spread of COVID-19.

Figure 2.2 Visitors Arrival in the Bicol Region, Domestic and Foreign, 2011-2019

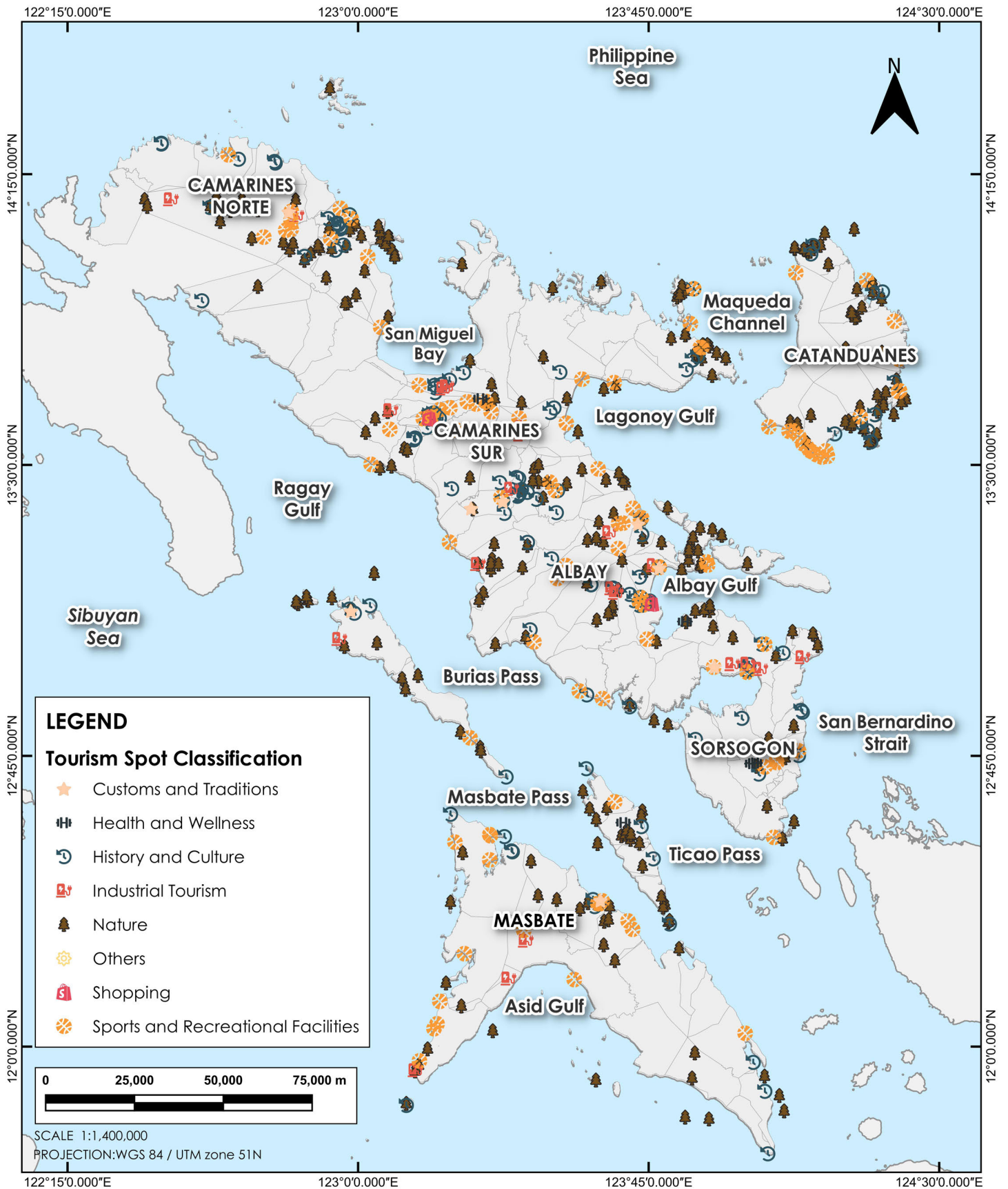


Source: Department of Tourism (DOT)

The main contribution of tourism to the Bicol economy is through the holding of festivals, the hosting of national events and conventions, and well-visited tourism destinations (Map 2.5 Tourism Map). As the region continued to gain an advantage in tourism, other tourism-oriented establishments such as hotels and restaurants, including the transportation sector, also increased to meet the

rising demand of the tourists for better facilities and services. In 2020, among the provinces in the region, Camarines Sur posted the highest in terms of the number of hotels or accommodation establishments and room capacity, followed by the province of Albay. The rest of the provinces have less than 150 tourism establishments and 3,000 rooms.

Map 2.5: Tourism Map Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Department of Tourism

Year of Publication: 2022

Data as of: 2017

Note: Administrative boundaries are approximated.

Industry

The region's Industry sector recorded a total output of PHP176.9 billion in 2020, from PHP90.86 billion in 2011 at constant 2018 prices. While this sector accounted for the second largest share of the GRDP at an average of 33 percent, it has shown a fluctuating but generally increasing growth over the ten years. But because of the COVID-19 pandemic in 2020, the Industry sector contracted to 13.6 percent from a positive growth of 7.9 percent in 2019. The biggest contractions were noted in the mining and quarrying, and construction subsectors. Except for food-related manufacturing businesses to provide for essential commodities, most of the manufacturing establishments were temporarily closed in 2020.

Mining is one of the major contributors to

the Industry sector because of the region's abundant mineral resources, which are rich in rock, copper, gold, phosphate, marble, silver, lead, manganese, chromite, nickel, and additional metallic minerals. About 33.8 percent or 595,708.56 hectares (has.) of the region's land area is covered by mining leasing contracts, exploration permits, industrial licenses, financial and technical support agreements, and mining production sharing agreements. From 2010-2021, the total production of metallic and non-metallic minerals reached PHP19.92 billion in 2021 from PHP9.9 billion in 2010. In a span of 11 years (2010-2021), the production volume of gold greatly improved by 13.59 percent from 2010 -2021, and the production of non-metallic production has increased from 28.47 MT to 169.92 MT.

Table 2.2 Mineral Commodities by Province and Municipalities in the Bicol Region

PROVINCE	MUNICIPALITIES	MINERAL COMMODITY	
Albay	Rapu-Rapu; Legazpi City; Camalig Oas	Metallic and Non Metallic	Copper; Gold; Zinc; Silver; Perlite; White Clay; Limestone; Sand, Gravel, boulders and earthfill
Camarines Norte	Jose Panganiban; Paracale; Labo; Capalonga; Sta. Elena	Metallic and Non Metallic	Gold; Iron; Copper; Silver; Silica Sand; Sand and gravel
Camarines Sur	Lagonoy; Ragay; Bula; Baao; Del Gallego	Metallic and Non Metallic	Chromite; Gold; limestone; gypsum; perlite; bentonite copper
Catanduanes	Baras; Bato; San Miguel; Virac; Viga; Caramoran	Metallic and Non Metallic	Copper; Gold; Zinc; coal; sand and gravel
Masbate	Aroroy; Milagros; Uson; Mobo; Baleno; Masbate; Balud	Metallic and Non Metallic	Gold; Silver; Copper; Manganese; sand and gravel; earthfill; cobble
Sorsogon	Sta. Magdalena; Pilar; Donsol; Sorsogon City; Magallanes; Irosin; Juban; Casiguran; Bulan; Prieto Diaz; Matnog	Metallic and Non Metallic	titaniferous; magnetite; sand; red clay; pumice; pumicite; coal; limestone; white clay; perlite; sulfur; iron; sand and gravel; earthfill

Source: MGB

As of December 31, 2021, there are eight operating economic zones in the Bicol Region, mostly information technology parks and centers. Three economic zones are located in Albay, four in Camarines

Sur, and one in Camarines Norte. There are no declared economic zones in Masbate, Sorsogon, and Catanduanes (Table 2.3: Economic Zones in the Bicol Region).

Table 2.3 Operating Special Economic Zones by Location and Total Area in the Bicol Region, in Square Meters, 2021

LIST OF OPERATING SPECIAL ECONOMIC ZONES IN BICOL		
NAME OF ECOZONE	LOCATION	TOTAL AREA (IN SQ. M)
ANR Business Center	Barangay Concepcion Grande, Naga City, Camarines Sur	1,800
Camarines Sur Information Technology Park	Capitol Complex, Cadlan, Pili, Camarines Sur	50,000
Embarcadero de Legazpi	Legazpi Port Area, Legaspi City	56,000
Gernarine Information Technology Center	Alternate Road, Legaspi City, Albay	1,009
Jose Panganiban SEZ	Jose Panganiban, Camarines Norte	363,515
Misibis Resorts and Estates	Cagraray Island, Barangay Misibis, Bacacay, Albay	322,178
Naga City Technology Park	Barangay Triangulo, Naga City	12,546
Robinsons Cybergate Naga	Naga Diversion Road corner Almeda Highway, Barangay Triangulo, Naga City	24,807

Source: Philippine Economic Zone Authority (PEZA)

Impact of Disasters on the Bicol Economy

The Bicol Region is vulnerable to various hazards, consisting of hydrometeorological, geologic, and volcanic in nature. The damages brought on by TCs alone in the major sectors were estimated at PHP49.3 billion for the period 2014-2022. These are only the direct damages, but the socioeconomic impacts of natural disasters in Bicol also include disruption and loss of income opportunities in the

agriculture and fisheries sectors, and in business enterprises, and the added cost of building back better lives and the infrastructures. The negative impacts on agriculture have threatened food security in the affected areas. Disruptions in the value chain of major commodities occur as damage to agriculture affects the supply value chain and increases prices and the cost of production.

Table 2.4: Cost of damages due to Tropical Cyclones Bicol Region, 2014-2020 (At Current Prices)

YEAR	TYPHOON	AMOUNT OF DAMAGES IN MILLION PESOS (AT CURRENT PRICES)		
		INFRASTRUCTURE	AGRICULTURE/ FISHERIES	IRRIGATION
2014	Glenda	1,356.96	2,297.87	275.61
2016	Nina	2,040.89	5,414.38	189.21
2018	Usman	8,531.14	1,248.89	529.41
2019	Tisoy	4,607.92	3,036.70	273.97
2020	Quinta, Rolly, and Ulysses	11,240.14	8,305.62	158.65
TOTAL		27,777.05	20,155.60	1,268.20

Source: OCD

Assessment and Challenges

A detailed discussion of the assessment and challenges are provided under the Planning Environment chapter of the DRR-CCA enhanced RFPF. Based on the scenario planning analysis, new and emerging challenges were also identified. The various scenarios considered using Strategic Foresight are presented in Chapter 3. Chapter 1 provides an assessment of social, economic, physical, and environmental trends in the region. The highlights of the challenges identified in the RFPF are presented as follows:

- **Addressing land use conflicts.** The increasing population pressure and economic activities resulted in the encroachment of settlements, agriculture, and infrastructures in protected areas. Through the years, these population pressures contributed to the loss of biodiversity and agricultural productivity, pollution, deforestation, flooding, and erosion. Governance issues such as weak enforcement of policies and institutional fragmentation due to overlapping functions will also be addressed.
- **Ensuring a balance among the three pillars of sustainable development (economic, social, and environmental).** More sustainable policies, programs, and practices will be implemented to address threatened environmental integrity and depleting natural resources. The allocation of land resources to different functions, such as settlements, is crucial given the finite natural resources.
- **Increasing Bicolano resilience and adaptive capacity.** Adaptation strategies, policies, and programs will be put in place in addressing climate risks such as increasing temperature, extreme rainfall patterns and winds (both in intensity and duration), and sea level rise. Measures to reduce the communities' vulnerabilities and exposure to these hazards will be implemented. Disaster-resilient infrastructure and settlement areas will also be able to meet the demand of the increasing population, which is expected to double in 60 years (2080). The Bicolanos will also be adaptive to the continuing threat of pests and diseases to humans and the agriculture sector. Livable communities must be created.
- **Reducing the impacts of disasters and sea level rise.** The occurrence of various disasters in the region caused the loss of lives, damage to properties, and disruption of socioeconomic activities. The continuous exposure of settlement areas to floods, landslides, strong winds, volcanic eruptions, and lahar flows poses socioeconomic threats to affected communities and the region as a whole. The impact of sea level rise will result in the reduction of land area that would have been used for productive uses such as settlements, food production, industries, and infrastructures.
- **Increasing access to basic services, education, and technology to enhance working capacity considering that the majority of the Bicol population is young.** The Bicol Region also has the highest magnitude of poor individuals and vulnerable groups, such as persons with disability (PWD), IPs, women, and children, who are experiencing difficulties in accessing basic services and livelihood opportunities. Innovative

approaches, particularly in the “New Normal” are needed to cater to their special needs and help them become productive members of society. The lack of social services (education, health, and housing) and employment opportunities also contributed to the increasing out-migration rate. The disparities in income and employment opportunities and access to social services are the main sources of attraction for moving out of the region.

- **Ensuring sufficiency in food, water, energy, and other commodities.** The continuing external threats (increasing international tensions), threats of climate change, diseases, and pests, will require the region to be self-sustainable in producing its own requirements, particularly food and energy. Water for domestic use, food production, energy, and environmental sustainability must be ensured.
- **Addressing poverty and inequality.** Although the region’s poverty incidence among the population improved from 41.1 percent in 2012 to 27.0 percent in 2018, poverty is still evident in rural areas. The Bicol Region ranked second among the regions in the country with the most GIDAs (489 barangays) which shows that a large proportion of the region’s population is still immersed in poverty because these areas remained inaccessible and underdeveloped. The region has 97 barangays CAA-CVAs, wherein 37 barangays are classified as *Konsolidado* (Influenced), 29 barangays as *Ekspansyon* (Expansion), 23 barangays as *Kinokonsolida* (Less Influenced), and eight barangays as *Rekoberi* (Recovery). The GFAs must be given the highest priority in terms of socioeconomic development. The establishment

of essential infrastructure will create a link to markets, provide employment opportunities, and improve access to social services.

- **Expanding, upgrading, and modernizing infrastructure.** The implementation of infrastructure programs and projects is vital to propelling the region’s sustained economic growth. The increasing population and rapid urbanization put a strain on infrastructure facilities, thus requiring new investments to develop new, and upgrade and modernize the region’s public infrastructures. The government needs to intensify efforts in addressing the demand for infrastructure facilities such as roads, ports, airports, renewable energy, Information and Communications Technology (ICT), water and sanitation, and social infrastructure. These infrastructure facilities must be resilient to the various hazards in the region.
- **Providing land requirements for the expansion of settlements that are safe and livable.** The expected doubling time of the population in 2080 must be anticipated, which will increase pressure on production and protection areas. The widening of road networks will require an additional land area that is already used for residential, commercial, and agricultural purposes. The ports and airports development will affect specific portions of the protection and production areas. Land utilization along the area for railway development will require a minimum of thirty-meter right-of-way (ROW) width and additional 200 meters for every train station. This exceeds the land area to be allocated for the relocation of affected communities.

- **Strengthening infrastructure linkages and increasing redundancy of transportation routes, communication, and other infrastructure facilities to reduce the vulnerability of people and properties during disasters.** Connectivity between the region's urban centers, agriculture and

industrial zones, tourism hubs, and other growth areas must be enhanced. The digital and physical infrastructure systems must be integrated to provide an efficient transportation and effective telecommunications network to improve linkages of settlements and key production areas which will be beneficial during emergencies.

Regional Spatial Development Framework

Core Strategies

Consistent with the LSDE, the Bicol RPPF focused on three core strategies:

(a) concentration; (b) connectivity; and (c) vulnerability reduction.

Concentration

Concentration will create agglomeration and economies of scale population in existing urban areas and metropolitan centers will be distributed according to an urban hierarchy following the principles of densification, compaction, and smart growth. The settlements and production areas will be integrated by strengthening linkages of communication, transportation, and economic infrastructure systems to optimize the provision of needed

functions to support the different levels of the hierarchy. Concentration will achieve the following: (a) increased innovation, creativity, and economic activities; (b) greater opportunities for employment and poverty reduction; (c) availability of a larger variety and higher levels of services; (d) reduced encroachment into agricultural land, protected areas, and hazardous area; and (e) optimized government investments on basic services.

Connectivity

Connectivity will improve linkages between settlements and the key production areas, and strengthen urban-rural linkages. A multi-modal, smart, and intelligent transport system will be developed to improve infrastructure and inter-regional, and urban-rural linkages. More efficient transportation and digital communication networks will make goods and services accessible to both producers and consumers. An enhanced digital communication, transportation (land, air, and sea), and

economic infrastructure systems will be able to: (a) increase access and improve the efficiency of markets; (b) manage the growth and development of settlements according to specific urban and regional plans; and (c) reduce vulnerability during emergencies by increasing redundancy of transportation routes, communication, and other infrastructure facilities. The Bicol Region will be interconnected with the different areas of the country through airports, seaports and RORO systems, railways, and road transport systems.

Vulnerability Reduction

Vulnerability reduction will reduce the risks and the negative impacts of disasters and climate change. The safety of settlements and the sustainable operation of production and protection areas from the threats of hazards will be ensured. The environmentally critical areas (ECA) and areas exposed to various hazards

will be delineated and demarcated. Appropriate and specific vulnerability reduction measures will be provided in protection, conservation, and hazard-prone areas, as well as the elements at risk, including population, agriculture and industries, and infrastructure facilities.

Spatial Development Strategies

The spatial development strategy adopted for the Bicol Region uses a combination of the integrated area development (IAD) approach, and the urban functions in rural development (UFRD). Under the IADs, the region is subdivided into smaller planning units, wherein the province is one IAD unit, and these IADs are subdivided into sub-integrated area development (SIAD) units which are clusters of municipalities grouped according to the homogeneity of physical resources, economic activities, accessibility to each other, and concentration of services and facilities.

The UFRD approach will increase access of the rural population to basic services and facilities, and locate investments that will create an integrated regional settlements system to: (a) strengthen markets for agricultural goods and other resources; (b) distribute the levels of services such as health, education, inputs for agricultural production and other socioeconomic amenities; (c) create new employment opportunities; and (d) alter the migration pattern. Under the UFRD approach, the Centrality of Functions was determined

by subjecting the 114 cities/ municipalities of the Bicol Region to a manual scalogram technique of analysis (please refer to the DRR-CCA Enhanced RPFP 2021-2050 for details). The cities/municipalities were categorized into levels of functional complexity, and the types of diversity of services and facilities located in central places at various levels of the hierarchy. By scaling the resulting centrality indices, five levels of classification were determined. The cities/municipalities at the first level are those with centrality indices ranging from 193.8-367.4. The areas under the first level such as the cities of Naga and Legazpi possessed the greatest number of functions and the presence of specialized and rare functions in the region. The second level is with centrality indices ranging from 124.9-193.7, the third level with centrality indices ranging from 101.8-124.8, the fourth and fifth levels are those centrality indices from 50.4-101.7, and from 0-50.3, respectively which are mostly the fourth and fifth class municipalities. The centrality index and ranking of municipalities are presented in Table 2.5.

Table 2.5. Centrality Index and Rank of Each LGU in the Bicol Region

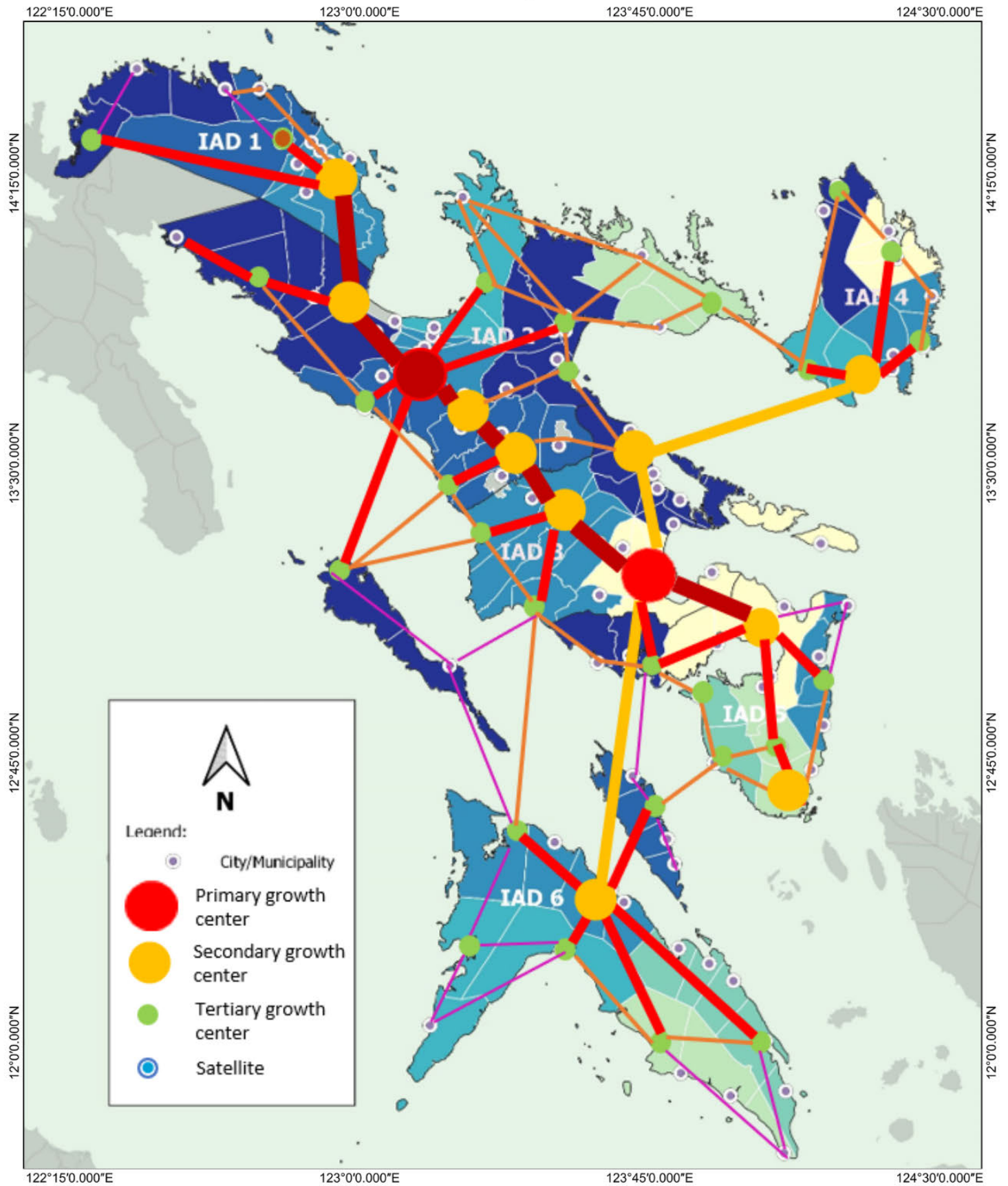
RANK	SETTLEMENTS	CENTRALITY INDEX	RANK	SETTLEMENTS	CENTRALITY INDEX	RANK	SETTLEMENTS	CENTRALITY INDEX
1	Naga City	367.4	41	Pasacao	76.5	81	Rapu-Rapu	46.3
2	Legazpi City	350.5	42	Manito	76.1	82	Donsol	46.1
3	Daet	277.3	43	Milagros	75.6	83	Panganiban	44.0
4	Jose Panganiban	243.8	44	Capalonga	75.5	84	Pio V. Corpuz	43.8
5	Masbate City	222.5	45	Mandaon	74.0	85	Garchitorena	43.6
6	Polangui	213.9	46	Talisay	73.9	86	Milaor	43.6
7	Ligao City	210.0	47	Baao	73.2	87	Prieto Diaz	43.6
8	Daraga	208.2	48	Tinambac	71.2	88	Minalabac	42.7
9	Iriga City	206.0	49	Casiguran	69.7	89	San Jose	42.5
10	Nabua	201.9	50	Balud	69.7	90	Libon	42.1
11	Tabaco City	196.8	51	Castilla	68.8	91	San Fernando, Masbate	40.3
12	Sorsogon City	193.8	52	San Pascual	68.4	92	Cabusao	38.9
13	Pili	168.4	53	Bato, Catanduanes	67.3	93	Caramoran	38.7
14	Bacacay	166.3	54	Lagonoy	67.0	94	Palanas	37.4
15	Virac	162.0	55	San Jacinto	66.3	95	Ocampo	37.3
16	Calabanga	153.9	56	Gubat	66.1	96	Sagñay	36.6
17	Aroroy	146.9	57	Bato, Cam. Sur	66.1	97	Claveria	35.3
18	Labo	138.9	58	Matnog	64.7	98	Gainza	34.7
19	Mobo	136.1	59	Caramoan	64.3	99	Barcelona	34.4
20	Camalig	130.1	60	Dimasalang	63.7	100	Malinao	34.2
21	Goa	124.9	61	Buhi	63.4	101	Esperanza	33.2
22	Pio Duran	115.0	62	Irosin	61.9	102	Santa Magdalena	32.8
23	Guinobatan	112.5	63	Sipocot	61.2	103	Bagamanoc	32.2
24	Tiwi	110.5	64	Balatan	60.7	104	Monreal	31.7
25	Ragay	108.5	65	Pamplona	58.0	105	Batuan	30.1
26	Canaman	107.1	66	San Andres	57.8	106	Magarao	29.7
27	Bulan	101.8	67	Tigaon	57.8	107	San Miguel	29.6
28	Cataingan	99.9	68	Malilipot	56.5	108	Uson	27.8
29	Placer	98.6	69	San Vicente	56.3	109	Bombon	27.6
30	Cawayan	93.3	70	Bula	54.4	110	Del Gallego	26.9
31	Siruma	91.8	71	Pandan	53.5	111	Gigmoto	25.0
32	Santa Elena	88.8	72	Bulusan	53.4	112	Jovellar	24.1
33	Libmanan	87.5	73	San Fernando, Cam.Sur	51.6	113	Presentacion	21.3
34	Mercedes	86.6	74	Baras	51.1	114	Lupi	15.7
35	Pilar	84.8	75	Baleno	50.4	Total Centrality		9,692.7
36	Vinzons	84.4	76	Camaligan	50.0			
37	Santo Domingo	84.1	77	San Lorenzo Ruiz	48.5			
38	Basud	80.0	78	Juban	48.0			
39	Oas	79.4	79	Viga	47.4			
40	Paracale	77.8	80	Magallanes	46.9			

Network of Growth Centers

A network of growth centers shall be developed with the cities of Naga and Legazpi as the primary growth areas; the provincial capital as secondary growth centers; and SIAD centers as tertiary growth centers (Map 2.6). The other towns will serve as the satellite centers. Metro Naga shall be the agglomeration of Naga City, Pili, Milaor, Gainza, Canaman, and Camaligan, while Metro Legazpi will consist of Legazpi City, Daraga, and Camalig. A growth corridor from Daet, Camarines Norte to Matnog, Sorsogon shall be developed. It will run parallel with the AH26, proposed Toll Road 5 (TR5), and PNR mainline South. It will traverse the primary growth centers of metro Naga and Legazpi where specialized services such as a trunkline airport with international flight services, medical centers, higher educational

institutions, central train stations, and government centers will be located. Various higher levels of services required of an expanding population in the less urbanized and rural municipalities will be catered to by the secondary centers and/or tertiary centers. The satellite municipalities will have the minimum services required to support their population; however, access to the higher levels of the hierarchy shall be provided particularly for health and other social services. The municipalities in the lower level of the hierarchy shall continue to work on elevating the level of services and facilities in their locality. The two island provinces of Masbate and Catanduanes will continue to work on being self-sufficient, with the improvement of physical and digital access to these areas.

Map 2.6:
Network of Growth Centers
 Bicol Region



REPUBLIC OF THE PHILIPPINES
 NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
 LEGAZPI CITY, ALBAY

Source: Department of Environment and Natural Resources

Year of Publication: 2022

Data as of: 2022

Note: Administrative boundaries are approximated.

Functional Role of the Bicol Region

The role of the Bicol Region under the LSDF is to serve as:

a. Geothermal energy supplier.

With the region's aggregate generating capacity of 397.9 megawatts, it will continue to supply electricity to the Luzon Grid. It will aim to increase its power-generating capacity by exploring other potential energy sources such as solar, hydro, wind, and biomass energy.

b. Major producer of agricultural commodities.

The agriculture sector will be modernized to support the development of agri-based industries. Agri-based industrial centers on prime commodities will be developed for Albay (sweet potato), Camarines Norte (pineapple), Camarines Sur (rice and corn for animal feeds), Catanduanes (abaca), Masbate (cattle), and Sorsogon (pili).

c. Tourism destination.

Tourism will be one of the growth drivers of the region's economy fueled by the increase in public investments in improving access and private investments in tourism-related assets. Tourism development in the region will continue to be led by the alliances of LGUs under the Albay – Masbate

- Sorsogon (ALMASOR) and the Camarines Norte, Camarines Sur, and Catanduanes (Triple C) Tourism Development Areas. The Bicol Region shall be promoted as a primary tourist destination for ecological, agricultural, educational, and medical tourism in the country.

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

Bicol's strategic location at the southern tip of Luzon makes it a gateway to Visayas and Mindanao. To strengthen its role as Luzon's link to other major islands of the country, the four modes of transport in the region will be modernized, expanded, and integrated. The Sorsogon-Samar Bridge link project shall be pursued complementing the PNR extension to Matnog Sorsogon and the TR5.

e. International gateway.

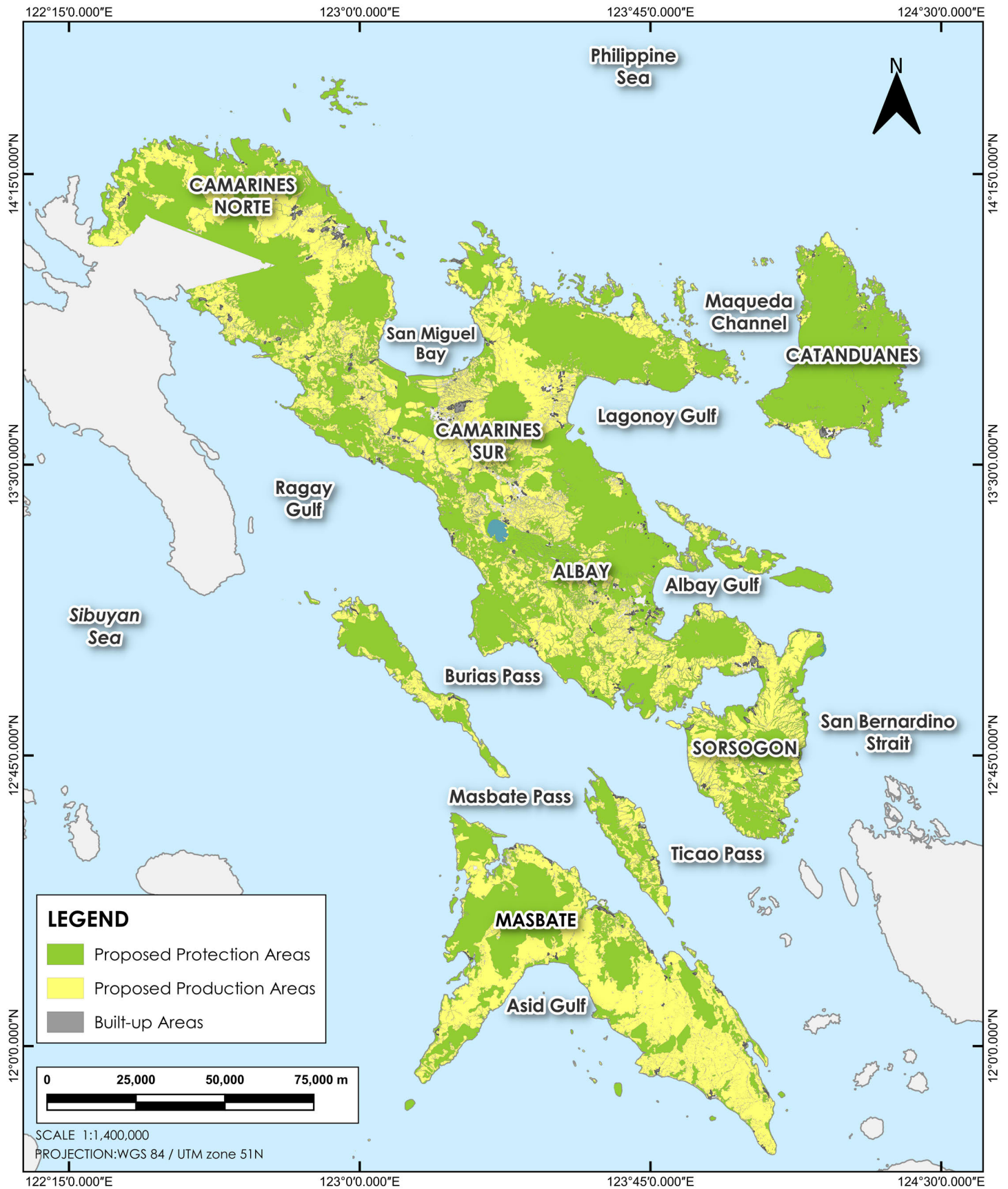
The region will play its role as an international gateway in the South through the operation of BIA, the completion of the New Naga Airport, and the upgrading of seaports in Legazpi, Tabaco, and Jose Panganiban to international standards. These facilities will provide the region with easy access to the global markets.

Composite Land Use and Infrastructure Development (2021 to 2050) and Link to RDP Chapters

The Composite Land Use and Infrastructure Development shall provide general guidance to provinces in the formulation and updating of their Provincial Development and Physical Framework Plans (PDPFP). The proposed

composite land use under the DRR-CCA enhanced RFPF consisted of three thematic areas, namely: Protection Land Use, Production Land Use, and Settlements Development (Map 2.7 Composite Land Use Map).

Map 2.7: Composite Land Use Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Department of Environment and Natural Resource, Mines and Geosciences Bureau, and Bureau of Soils and Water Management

Year of Publication: 2022

Data as of: 2021

Note: Administrative boundaries are approximated.

Protection Land Use

Protection Land Use aims to rehabilitate and conserve sensitive and critical ecosystems to preserve their ecological integrity, allow degraded resources to regenerate, and protect the human population from natural hazards. It includes all protected areas that are proclaimed, legislated, and initial components of the ENIPAS; non-NIPAS areas including those that have outstanding physical and aesthetic features, anthropological significance, and biological diversity but have not been included in the NIPAS but need to be protected for the same reasons of NIPAS areas; ancestral domains of the ICC/IPs; and ECAs which include areas that are highly prone to natural hazards.

Production Land Use

Production Land Use aims to provide an efficient and equitable utilization and management of land and water resources to ensure that there is adequate and accessible space for the sustainable production of food, extraction of mineral resources, and development of industry and tourism to sustainably meet the demand of the regional population and economy. Production land use will ensure food security, and reduce the impacts of disaster and climate change on agriculture, forestry and fisheries, industry, and tourism. These areas will be developed extensively and intensively for food production, and industry requirements.

The Production Land Use component is linked to *Chapters 4 (Promote Human and Social Development)*, *5 (Protect Purchasing Power)*, *6 (Increase Income-Earning Ability)*, *7 (Modernize Agriculture and Agribusiness)*, *8 (Revitalize Industry)*, *9 (Reinvigorate Services)*, *13 (Expand and Upgrade Infrastructure)*, *14 (Peace and*

The Protection Land Use component of the RPPF is linked to *Chapters 4 (Promote Human and Social Development)*, *15 (Practice Good Governance and Improve Bureaucratic Efficiency)*, and *16 (Accelerate Climate Action and Strengthen Disaster and Ecosystem Resilience) of the RDP*. Livable communities will be created where human settlements are resilient to disasters, and environmental quality is promoted through responsive governance. Climate action and disaster risk resilience will be accelerated, and ecosystems resilience enhanced by intensifying the conservation, protection, rehabilitation, and management of ecosystems, and by practicing DRR-CCA governance.

Security, and Enhance Administration of Justice) and *15 (Practice Good Governance and Improve Bureaucratic Efficiency)*. Livable communities and resilient human settlements will be created by ensuring food security and being able to quickly recover from economic shocks because Bicolanos have a stable income generated from high-quality jobs, competitive products produced, and services created. Infrastructure facilities will be expanded and upgraded to meet the demands of the production sector. The physical and digital connectivity of production areas to markets and processing centers will be provided. Energy and water security will be ensured. To attain a prosperous, inclusive, and resilient society, good governance will be practiced at all levels of society. Peace and security, and an efficient administration of justice are also critical in providing the enabling environment to encourage investments in the region, thus ensuring sustained economic growth.

Settlements Development

Settlements Development aims to improve access of the population to social and infrastructure facilities and services to ensure the rational distribution of the population. It provides the spatial direction of urban growth that will create disaster-resilient and climate-smart communities. The rational distribution of the population can be attained by providing the needed services and economic facilities in identified growth areas.

The Settlements Development component is linked to *Chapters 4 (Promote Human and Social Development), 12 (Promote Financial Inclusion and Improve Public Financial Management), 13 (Expand and Upgrade Infrastructure), 14 (Ensure Peace and Security, and Enhance Administration of Justice), 15 (Practice Good Governance*

and Improve Bureaucratic Efficiency), and 16 (Accelerate Climate Action and Strengthen Disaster and Ecosystem Resilience). Livable communities will be established through adequate, inclusive, accessible, and resilient human settlements. Public service will be improved through strengthened public financial management, and strengthened financial inclusion because of the expanded access to digital finance and payment. The overall physical and digital connectivity will be improved, and environmental quality promoted through responsive good governance. Infrastructures will be modernized to become more sustainable, resilient, and integrated to be used by the people and communities. Ensuring peace and security will create livable and happy communities.

Infrastructure Development

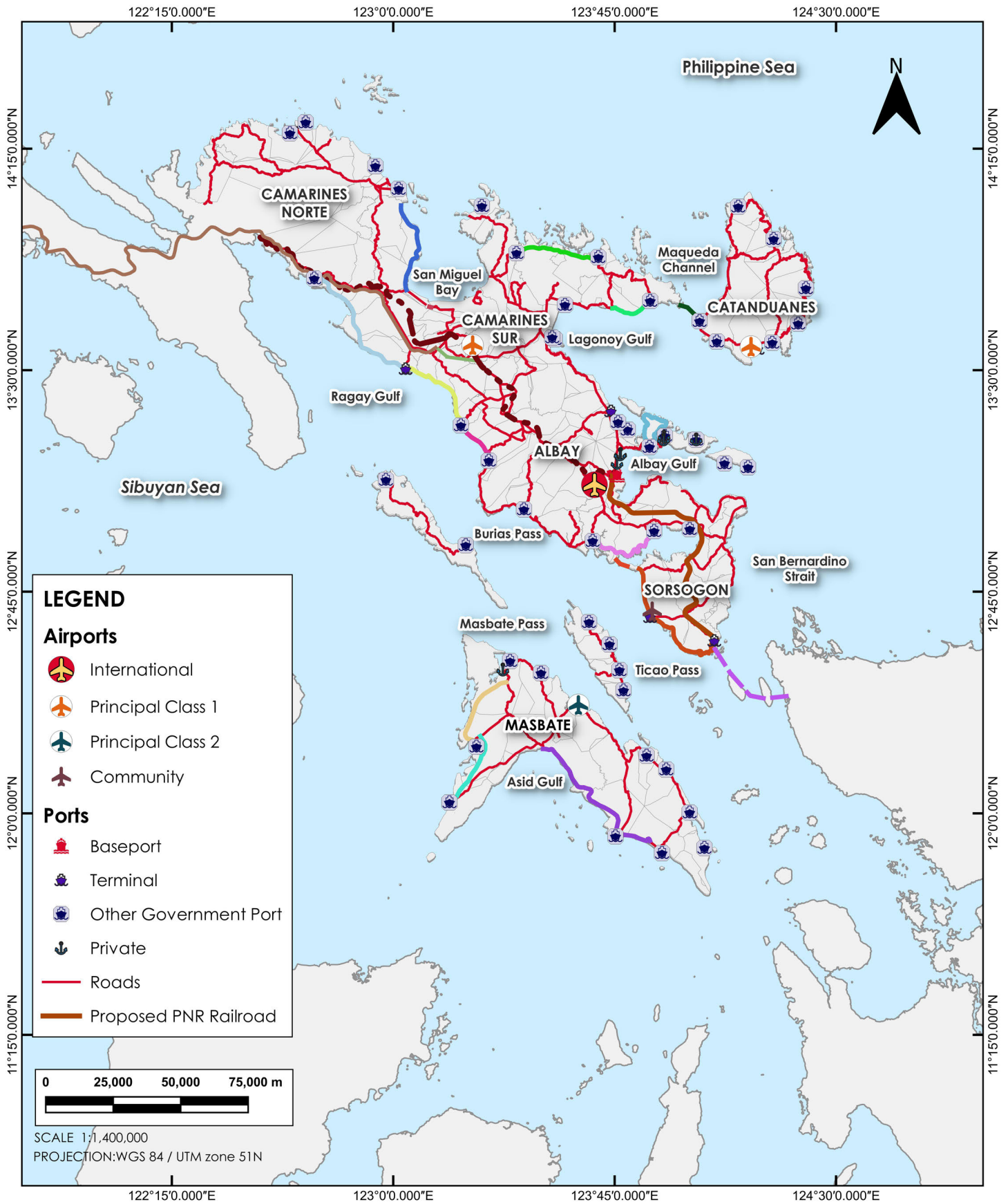
Infrastructure Development will provide the physical and digital connection among the protection, production, and settlement areas. It will support the physical and economic integration necessary in ensuring business continuity, development of agglomeration economies, creation of new urban centers, delivery of essential services, and the transition to a digital region. The physical infrastructure shall foster sustainable development and resiliency to climate change. Adequate, safe, smart, resilient, and reliable facilities and services that will support the requirements of the region while maintaining sound ecological balance will be provided. Green and smart infrastructure facilities will be promoted consistently with the desired spatial pattern of the region.

The region will provide the backbone of the land transport system to Visayas and Mindanao through the PNR mainline south, AH26 (*Maharlika highway*), the

extension to the south of the Luzon Spine Expressway Network through the TR5, and the Sorsogon-Samar Bridge Link project. Other significant projects that will be implemented include: (a) the improvement of the BIA, the New Naga Airport Development Project, airports in Catanduanes and Camarines Norte and the relocation of the Masbate Airport; (b) the implementation of road convergence programs to connect tourism destinations and trade and industry areas; (c) closing the gaps of the Bicol Circumferential Roads. To improve inter and intra-regional connectivity the seaports in Matnog, Bulan, Tabaco, Virac, Jose Panganiban, Castilla, Pioduran, Masbate, Aroroy, Cataingan, Balud, Mandaon, San Pascual, Claveria and Pantao will be modernized. The Friendship Bridge connecting the province of Catanduanes to mainland Bicol will be pursued.

The major programs and projects are shown in Map 2.8.

Map 2.8: Infrastructure Development Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Civil Aviation Authority of the Philippines, Department of Transportation, Department of Public Works and Highways, and Philippine Ports Authority

Year of Publication: 2022

Note: Administrative boundaries are approximated.

The Infrastructure Development component is linked to *Chapters 4 (Promote Human and Social Development)*, *7 (Modernize Agriculture and Agribusiness)*, *8 (Revitalize Industry)*, *9 (Reinvigorate Services)*, *11 (Promote Trade and Investments)*, *13 (Expand and Upgrade Infrastructure)*, *14 (Ensure Peace and Security, and Enhance Administration of Justice)*, *15 (Practice Good Governance and Improve Bureaucratic Efficiency)*, and *16 (Accelerate Climate Action and Strengthen Disaster and Ecosystem Resilience)*. Infrastructure will lead the economic and social transformation as it will serve as the backbone of regional development. The overall well-being

of Bicolanos will be improved through the provision of quality social facilities. Infrastructure development will support the sustainable economic development of the Bicol Region through modern and expanded infrastructure that will improve competitiveness, thus promote trade and investments. Priority must be accorded to the GFAs to promote lasting peace in the countryside. In the design of infrastructure development projects, DRR-CCA governance must be practiced and in project implementation, public accountability, transparency, and efficiency at all levels of governance will also be practiced.

03

Overview of the RDP 2023-2028 Strategic Framework



Overview of the RDP 2023-2028 Strategic Framework

In the RDP 2017-2022, the intermediate goal is to lay down the foundation for inclusive growth, a high-trust and resilient society, and a globally competitive knowledge economy. It was the first step towards the AmBisyon Natin 2040 and the SDGs, which is why it was foundational. The AmBisyon Natin 2040, which represents the collective aspirations of the Filipinos to have a life that is strongly rooted, comfortable, and secure (*matatag, maginhawa, panatag*), sets the direction of medium-term plans. The SDGs are a global call to action to end poverty, hunger, inequality, and climate change that aims to protect the environment and ensure that people everywhere can enjoy peace and prosperity.

The Bicol economy has been growing and heading towards the direction of the AmBisyon Natin 2040 and the SDGs, with major improvements on key indicators such as the GRDP, poverty, and employment. However, because of resource limitations that were tested by the COVID-19 pandemic, the region has to face various challenges because its capacity cannot keep up with the growing economy. The Bicol Region is in the early stages of recovery from the pandemic and the impacts of TCs QRU.

Four Future Scenarios

Aside from the challenges that have to be confronted, there are emerging new challenges. Based on the scenario planning conducted, there is a need to identify robust strategies to address them. Scenario planning has been part of the stakeholder's consultations in the formulation of the DRR-CCA enhanced RPFP and RDP 2023-2028.

The four scenarios tested are biophilia, nature take-over, doomsday, and human dominance (Figure 3.1).

- **Biophilia (or *Sagana*)** is the future when every Bicolano is happy, lives in harmony with nature, and enjoys robust and inclusive economic

growth. Sustainable development is highly regarded by everyone. Every Bicolano considers natural resources as a finite economic resource, utilizing only what is necessary so that the needs of the future will not be compromised.

- **Nature Take-Over (or *Sinauna*)** is the future when societal conditions decline and environmental health improves. Environmental protection is the region's top priority. The threat of climate change, the occurrence of extreme weather events, and the pandemic made people realize nature's supremacy over humankind. Development agendas and policies

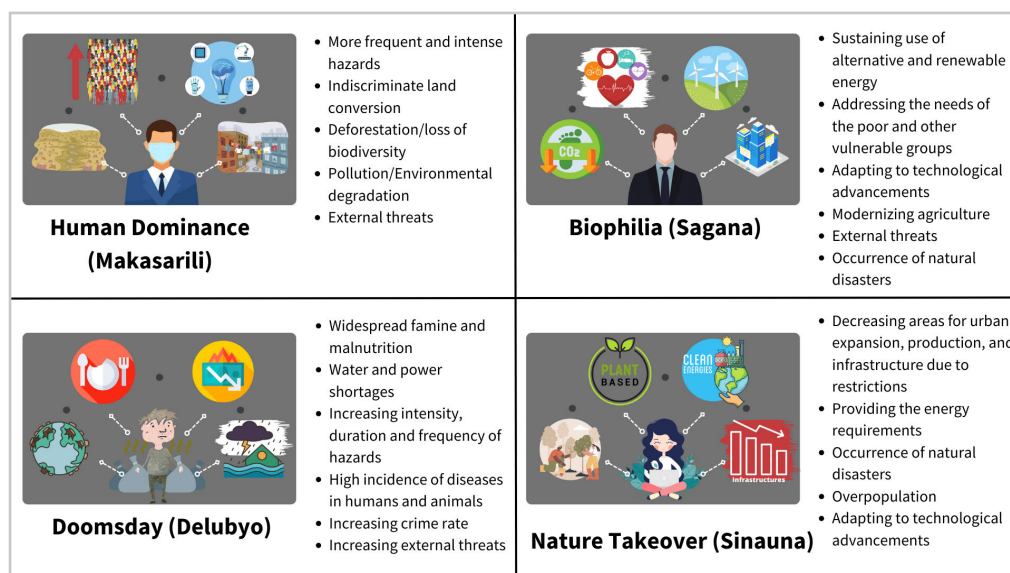
are focused on the planet. The use of natural resources is highly restricted, resulting in socioeconomic challenges and compromised delivery of services to Bicolanos.

- **Doomsday (or *Delubyo*)** is the future when environmental health deteriorates and societal condition declines. Bicolanos are suffering the impacts of climate change and decades-long abuse of the environment. Extreme weather events are frequently occurring, and at a higher intensity and longer duration. The state of health of planet Earth is no longer in good shape. The economy and the whole of humanity are negatively affected. Resources are now scarce, human health is compromised, conflicts and civil unrest are increasing, and the region is facing an economic recession.
- **Human dominance (or *Makasarili*)** is the future when societal condition

advances and environmental health deteriorates. The economy and society are the top priorities. The socioeconomic condition substantially improved but at the expense of the environment. The government focuses on providing access to the needs of the population such as health, education, and employment. The impacts of climate change continue to threaten the region. Extreme weather events are occurring with higher frequency, intensity, and duration.

Among the major issues and challenges that will be addressed by the RDP 2023-2028 are: (a) ensuring food, water, and energy security; (b) addressing poverty; (c) increasing resiliency; (d) addressing environmental problems; (e) moving towards modernization; (f) enhancing Research, Development, and Innovation (RDI); and (g) providing infrastructure facilities and social services.

Figure 3.1: Four Future Scenarios



Headline Targets

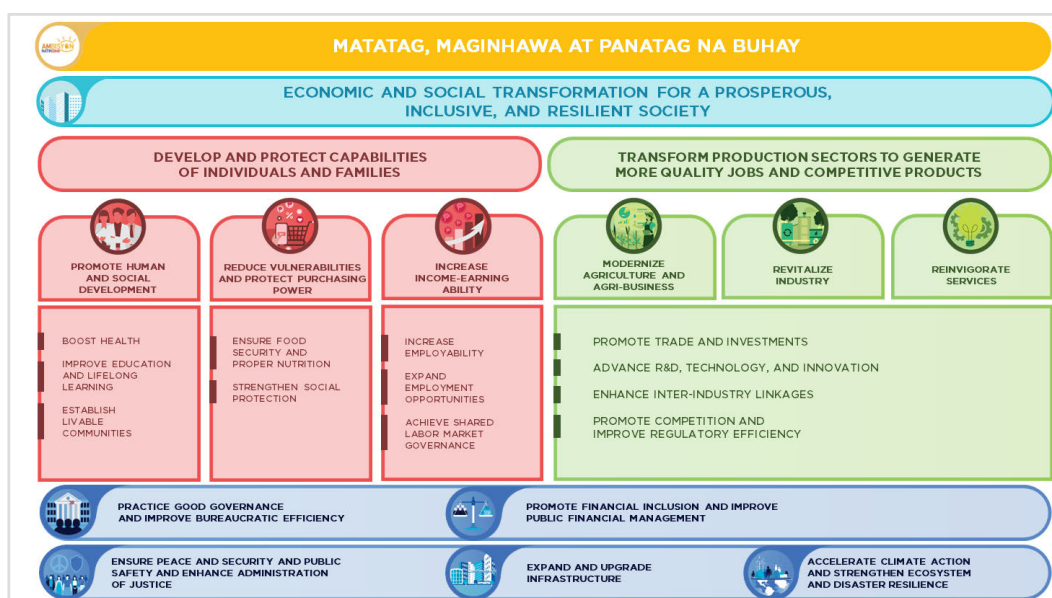
Over the next six years, the development agenda of the Bicol Region will be towards the achievement of the headline targets that will prioritize inclusive growth, reduction of poverty, and ensuring resiliency. It will address the issues and challenges and aims to regain its status as one of the fastest-growing regions in the country before the COVID-19 pandemic. There will be sustained high levels of inclusive growth to reach the AmBisyon Natin 2040 and the SDGs.

By the end of 2028, the Bicol RDP aims to achieve a growth rate in the GRDP from 4.3 percent in 2021 to 7.0-8.5 percent; reduce poverty incidence among population from 29.3 percent in 2021 to 18.0 percent; lower unemployment from 8.8 in 2021 to 5.0-6.5 percent and; and maintain a single digit inflation rate of 2.0-4.0 percent.

To achieve the targets, the RDP 2023-2028 will focus on the economic and social transformation, to have a prosperous, inclusive and resilient society. (Figure 3.2).

Strategic Framework

Figure 3.2. Strategic Framework of the RDP 2023-2028



Develop and Protect the Capabilities of Individuals and Families

To effect economic and social transformation, there is a need to develop and protect the capabilities of individuals and their families to accelerate poverty reduction and to reinvigorate job creation by steering the economy back on the high-growth trajectory. Bicolanos will

be equipped with appropriate skills to participate fully in an innovative and globally competitive economy.

- **Promote Human and Social Development (Chapter 4).** The full potential of Bicolanos will be

optimized by improving their overall well-being through quality health services, lifelong learning, and creating livable communities. Livable communities will be established through adequate, inclusive, accessible, and resilient human settlements. Their connectivity will be improved, and environmental quality promoted through responsive governance.

- **Reduce Vulnerabilities and Protect Purchasing Power (Chapter 5).** A transformative social protection system will be established to enable

every Filipino, especially the most vulnerable, to quickly recover from economic shocks or stresses by ensuring food security, stabilizing food prices, and expanding social protection programs.

- **Increase Income-Earning Ability (Chapter 6).** Productive employment opportunities will be provided to ensure sustainable income. Accessible employment will be promoted by upskilling the Bicolano workforce by taking full advantage of their potentials.

Transform Production Sectors to Generate More Quality Jobs and Competitive Products

A high growth path means that businesses are expanding, new businesses are coming in, and that there are additional quality jobs. The economic and social transformation in the region will contribute in achieving the upper middle income country status by 2040.

- **Modernize Agriculture and Agribusiness (Chapter 7).** A holistic agri-food system approach will be adopted to enhance the efficiency of AFF production, expand access to markets and AFF-based enterprises, improve resiliency and links of AFF value chains, and strengthen agricultural institutions. The major crops of the region where it has a comparative advantage will be fully developed to supply raw materials for the manufacturing industry.
- **Revitalize Industry (Chapter 8).** The domestic market and supplier base will be expanded by advancing the whole of the value chain, and strengthening cross-sectoral ties

to produce more high-quality jobs and competitive products. Science, technology, and innovation will be made accessible particularly for the micro, small, and medium enterprises (MSMEs).

- **Reinvigorate Services (Chapter 9).** The Services sector's current low productivity level will be replaced by a modern, effective, and resilient global leader providing higher value-adding and differentiated services. Market expansion and digital transformation will strengthen businesses' market positions, expand new customer regions and market categories, and explore diversification. The tourism sector, as the comparative advantage of the Bicol Region, will have a significant role and high potential in the economic recovery of the region.
- **Advance R&D, Technology, and Innovation (Chapter 10).** The RDI will advance from knowledge creation to commercialization of research

and development (R&D) products, and reinforce the innovation and entrepreneurship ecosystem. The RDI will be a continuum, starting with basic research, technical invention, and commercialization. The RDI will be market-driven and customer-centered.

- **Promote Trade and Investments (Chapter 11).** As one of the region's economic drivers, the Bicol Region will continue to be promoted as a major investment destination, and improve the competitiveness of domestic industries through strengthened partnerships between and among the public, private sectors, and major social partners.

Fostering the Enabling Environment

- **Promote Financial Inclusion and Improve Public Financial Management (Chapter 12).** Strong public financial management systems will improve public service and effective financial efficiency. Financial inclusion will be strengthened to include expanding access to digital finance and payments, improving LGU revenue generation, and budgeting and expenditure management of government entities.
- **Expand and Upgrade Infrastructure (Chapter 13).** Infrastructure is the backbone of regional development as it supports sustainable economic and social development. Infrastructure facilities will be modernized to become more sustainable, resilient, and integrated.
- **Ensure Peace and Security, and Enhance Administration of Justice (Chapter 14).** Peace and security, and an efficient administration of justice are critical in providing the enabling environment to ensure sustained economic growth. A whole-of-government approach will be adopted by focusing peace and security efforts in geographically isolated and conflict-affected areas. An enhanced administration of the justice system will be characterized by integrity, fairness, and accessibility.
- **Practice Good Governance and Improve Bureaucratic Efficiency (Chapter 15).** A high-trust society and efficient bureaucracy through good governance are essential to attain a prosperous, inclusive, and resilient society. Good governance is the foundation for inclusive and sustainable growth, which creates accountability, transparency, and efficiency at all levels of the government.
- **Accelerate Climate Action and Strengthen Ecosystem and Disaster Resilience (Chapter 16).** To accelerate climate and disaster risk resilience, the capacity of communities, institutions, and infrastructure will be increased. Ecosystems resilience will be enhanced by supporting a low carbon economy, intensifying the conservation, protection, rehabilitation, and management of ecosystems, and practicing DRR-CCA governance.

The RDP 2023-2028 is based on President Ferdinand R. Marcos, Jr.'s 8-point socioeconomic agenda that will address short-term concerns such as the high inflation, scarring due to COVID-19, and the tight fiscal space; and over the medium term, the constraints in generating more jobs, quality jobs, and green jobs and providing the enabling environment

(governance, level playing field, peace and security, infrastructure, and disaster resilience).

The transformation agenda will include, among others:

- **Digitalization.** The digital transformation will result in more efficient and faster delivery of services, transparency, and fewer opportunities for corruption. The positive impact of the COVID-19 pandemic must be capitalized which enabled the various sectors to digitalize.
- **Servicification.** Servicification creates the linkages for more value-adding opportunities, diversification of products and markets, and efficient delivery networks. The expansion of the production sectors will create service-related labor opportunities needed from the freed-up labor from the AFF sector.
- **Dynamic Innovation Ecosystem.** Through innovation, new processes and products will be created that can be translated into quality jobs. The government will support the creation of innovation hubs.
- **Enhanced Connectivity.** The physical and digital connectivity will facilitate the movement of goods and services. It will link production centers to markets and connect rural areas to urban centers where higher level social services are available.
- **Enhanced Resilience.** Bicolanos are known for being resilient, able to quickly recover from the harmful impacts of natural hazards. But because of climate change, hazard events such as typhoons are increasing in frequency, intensity, and duration which pose risk to communities and families and the physical environment. It is important that Bicolanos are able to adapt to changes in the physical, social, and economic environment to cushion from shocks brought by hazard events.
- **Greater collaboration between local and national governments.** The operationalization of the Mandanas-Garcia Supreme Court Ruling requires greater collaboration between the local and national governments. The full devolution will give opportunities to share responsibility in providing the necessary programs, projects, and services to the people.
- **Strengthened partnership with the private sector.** There will be more engagement of the private sector in terms of creating businesses to generate jobs, and in implementing and monitoring development programs and projects. Because of the tight fiscal space, the Public-Private Partnership (PPP) is one avenue where the private sector can help the government in financing major development projects.

PART II

Develop and Protect Capabilities of Individuals and Families

04

**Promote Human and
Social Development**



Promote Human and Social Development

Investment in the overall well-being of the people will lead to social development. This chapter will build the foundation for maximizing the full potential of people, as our most valuable resource, through quality health services, transformative lifelong learning opportunities, and livable communities.

Subchapter 4.1 Boost Health

Health is not the absence of disease. It refers to an individual's physical, mental, and social well-being. Through the Health Sector Strategy 2023-2028¹, priority shifts will be initiated, and long-standing

gaps in the country's health system will be addressed through more equitable outcomes, responsive health systems, and improved financial risk protection².

Assessment and Challenges

Assessment

Landmark reforms were enacted, and milestone plans and programs were developed. Since 2017, several landmark reforms have been enacted, such as the Universal Healthcare Act (RA 11223), *Kalusugan at Nutrisyon ng Magnanay* Act or the First 1000 Days (F1K) Law (RA 11148), Mental Health Act (RA 11036), Tax Reform for Acceleration and Inclusion (TRAIN) Law (RA 10963), National Integrated Cancer Control Law (RA 11215), New Sin Tax Reform Law of 2020 (RA 11467), and the Mandatory Reporting of Notifiable Diseases and Health Events of Public Concern Act (RA 11332). Likewise, among the milestone plans developed are the Philippine Health Facilities Development Plan (PHFDP)

2020-2040 and the National Human Resources for Health Master Plan (NHRHMP) 2020-2040.

The COVID-19 pandemic highlighted the vulnerabilities of our healthcare system and stretched our health resources beyond their capacity. Among the persistent issues are the need for more access to primary healthcare by the majority of the vulnerable population, insufficient healthcare workers, and limited budget/investment in health systems. Despite the increasing health expenditure³ in the region, access to frontline health facilities such as rural health units (RHUs) and barangay health stations (BHS) remains a challenge. RHUs are supposedly the entry points of the communities into the health system but

¹ Defines the country's vision, policy direction, and strategic objectives to accelerate the achievement of Universal Health Care (UHC) and to further build the health system's resilience against future pandemics and health emergencies. The framework emphasizes the importance of addressing health determinants through healthy public policies and settings

² DOH Administrative Order No. 2022-0038

³ Based on the 2021 Philippine National Health Accounts of PSA, the Current Health Expenditure of the Bicol Region are as follows: PHP25,888 million (2017), PHP28,939 million (2018), PHP34,014 million (2019), PHP40,877 million (2020), and PHP43,296 million (2021)

in practice, some patients directly go to hospitals and other specialized clinics. There should be one BHS per barangay and 1:20,000 RHU-to-population ratio. Bicol Region is among the top three regions with the highest share of population without access to RHU or health centers within 30-minute travel time. Further,

95.2 percent of the municipalities in Masbate, do not have physical access to at least 75 percent of its land area within one hour. 95.2 percent of the municipalities in Masbate, do not have physical access to at least 75 percent of its land area within one hour.

Table 4.1.1 Number of Hospitals, Infirmarys, RHUs, and BHS by Province in the Bicol Region, 2019

PROVINCE	NO. OF HOSPITALS	NO. OF INFIRMARIES	NO. OF RHUS	NO. OF BARANGAYS WITH BHS	NO. OF BARANGAYS WITHOUT BHS	RHU TO POPULATION RATIO
Albay	22	17	18	201	519	1:73,045
Camarines Norte	7	6	16	137	145	1:36,457
Camarines Sur	16	16	46	558	505	1:42,446
Catanduanes	6	5	11	63	252	1:23,724
Masbate	7	10	21	332	218	1:42,494
Sorsogon	8	8	17	193	348	1:46,644

Source: PHFDP 2020-2040

Upgrading of regional hospitals pursued. By virtue of RA 11719, the Bicol Regional Training and Teaching Hospital (BRTTH) was converted to a general and sub-specialty hospital now known as the Bicol Regional Hospital and Medical Center (BRHMC). The BRHMC is one of the specialized centers being put up by the DOH outside Metro Manila to cover neonatal illnesses and heart, lung, kidney, and cancer diseases. The BRHMC has increased its bed capacity from 250 to 800. The Bicol Medical Center (BMC), Bicol Region General Hospital, and Geriatric Medical Center (BRGHGMC) are two other regional hospitals undergoing modernization.

Malasakit Centers established. As of December 2021, there are seven Malasakit Centers within government hospitals⁴ in the region where indigents can efficiently access financial and medical assistance.

Access to health services improved for people with HIV. Gentlemen Bicol for Sexual and Reproductive Health and Rights, Inc. established a community-led facility for human immunodeficiency virus (HIV) testing. As a result, there were 271 newly diagnosed HIV cases in 2021, higher than the 138 cases recorded in the previous year. Despite improvements in HIV testing, the 2022 Philippine National Demographic and Health Survey (NDHS) shows that only 20.8 percent of young women aged 15-24 years in the region have knowledge about HIV prevention.

Challenges

Improving health and nutrition outcomes. Data from the Department of Health (DOH) Region 5 show that the maternal mortality rate spiked from 112.45 percent in 2016 to 144.02 percent in 2021. Likewise, tuberculosis (TB) incidence

4 Malasakit Centers in the Bicol Region: Bicol Regional Hospital and Medical Center (Albay), Bicol Medical Center (Naga City), Camarines Norte Provincial Hospital (Camarines Norte), Bicol Region General Hospital and Geriatric Medical Center (Camarines Sur), Eastern Bicol Medical Center (Catanduanes), Masbate Provincial Hospital (Masbate), and Dr. Fernando B. Duran Sr. Memorial Hospital (Sorsogon)

per 100,000 population increased from 60 in 2020 to 84 in 2021. The neonatal, infant, and under-five mortality rates have steadily gone downward since 2013, but rose in 2020 when the pandemic hit. The neonatal, infant, and under-five mortality rates increased from 2.45 percent, 5.67 percent, and 6.55 percent in 2019 to 13.28 percent, 21.50 percent, and 24.34 percent in 2021, respectively.

Reaching major health outcome targets despite improvement in child nutrition.

According to the National Nutrition Council (NNC) Region 5, the prevalence of wasting and stunting among children under five years old dropped from 8.2 percent in 2015 to 3.12 percent in 2021 and from 40.2 percent in 2020 to 13.38 percent in 2021, respectively. This is attributed to the implementation of RA 11148, or the F1K Law of 2018. The *Tutok Kainan*: Dietary Supplementation Program provides supplements to nutritionally-at-risk pregnant women and children 6 to 23 months old. Nutrition education sessions under the program emphasized the importance of the first 1,000 days of life, from conception to 24 months, for the child's optimum development. These indicators have already achieved the annual plan target in 2021 and the end of the plan target. In addition, the DOH Region 5 reported that the proportion of fully-immunized children increased from

51.71 percent in 2020 to 55.93 percent in 2021.

Though the maternal mortality rate decreased from 162.98 percent in 2020 to 144.02 percent in 2021, it is still far from the end of the plan target of 90 percent. The neonatal, infant, and under-five mortality rates increased and exceeded the 2021 and end-of-plan targets. The DOH cited the need to strengthen advocacy among pregnant women not to delay seeking professional services and to address the delay in receiving care in health facilities.

On reproductive health, despite the rise in the modern contraceptive prevalence rate from 27.84 percent in 2017 to 33.80 percent in 2021, the proportion of women of reproductive aged 15-49 years with an unmet need for family planning increased from 0.87 percent in 2020 to 2.89 percent in 2021, pulling away from the zero percent end of plan target.

Due to the limited budget of the LGUs, TB incidence increased from 60 to 84 per 100,000 population, which caused the TB treatment success rate to fall from 93 percent in 2020 to 84 percent in 2021. Due to mobility restrictions, the percentage of drug users who completed treatment plunged from 100 percent in 2020 to 8.2 percent in 2021.

Targets

Achieve health equity and promote good health through comprehensive and responsive healthcare strategies focusing on an integrated network of healthcare providers, an innovative and advanced

healthcare delivery system, increased and sustained investment in health resources, and harmonized efforts of all sectors. These will be the priorities to boost health conditions.

Core Indicators

Table 4.1.2 presents the indicators and targets to achieve results for boosting health.

Table 4.1.2 Core Indicators to Boost Health

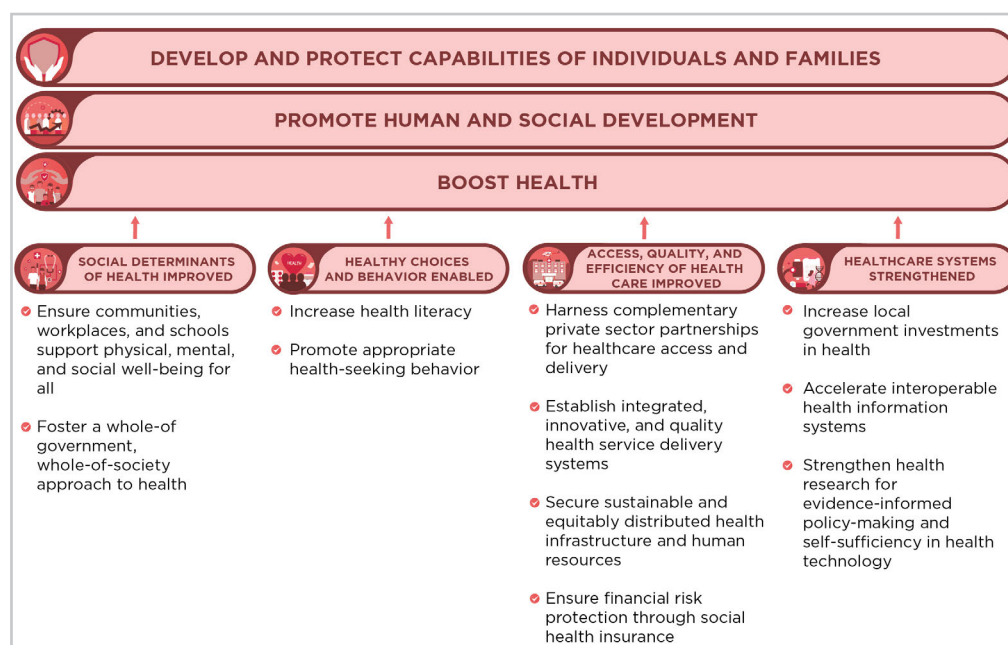
INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Maternal mortality ratio decreased (per 100,000 live births)	144.02 (2021)	Decreasing						PSA estimates**	DOH
Neonatal mortality rate decreased (per 1,000 live births)	7.83 (2021)	Decreasing						NDHS	DOH
Infant mortality rate decreased (per 1,000 live births)	18.01 (2021)	Decreasing						NDHS	DOH
Under-5 mortality rate decreased (per 1,000 live births)	24.34 (2021)	Decreasing						NDHS	DOH
Premature mortality rate attributed to cardiovascular disease, cancer, diabetes, and chronic respiratory diseases decreased (number of deaths per 1,000 population aged 30-70 years old)	0.14 (2021)	Decreasing						NDHS	DOH
Tuberculosis incidence decreased (per 100,000 population)	84 (2021)	Decreasing						WHO Global TB Report	DOH
Safe water supply coverage increased (% families)	81.20 (2021)	Increasing						Annual Poverty Indicator Survey (APIS)	PSA, water districts
Poverty incidence decreased (%)	21.9P (2021)	Decreasing						Family Income and Expenditure Survey (FIES)	PSA
Prevalence of stunting among children under 5 years of age decreased (%)h	11.7% (2022)	10.7%				9.7%		Annual E OPT+ Results	NNC with the provinces and cities
Prevalence of wasting among children under 5 years of age decreased (%)h	2.6% (2022)	2.6 %				2.4%		Annual E OPT+ Results	NNC with the provinces and cities
Adolescent aged 15-19 years birth rate decreased (per 1,000 women in that age group)	25.08% (2021)	Decreasing						NDHS	PSA, DOH, POPCOM, LGUs
Proportion of fully immunized children increased (%)	55.93% (2021)	Increasing						NDHS	PSA, DOH, POPCOM, LGUs

p - This is based on the preliminary results of the 2021 FIES

Strategy Framework

The strategy framework supports the whole-of-society and whole-of-government approach to improve the overall well-being of Filipinos, advance the healthcare delivery system, and achieve health equity.

Figure 4.1.1 Strategy Framework to Boost Health



Strategies

Outcome 1: Social determinants of health improved

The World Health Organization (WHO) defines social determinants of health as non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, including a more comprehensive set of forces and systems shaping the conditions of daily life. Examples of social determinants of health that can positively or negatively influence health equity are income, education, social protection, food insecurity, housing, and early childhood development. By nature, strategies under this outcome require a long-term

timeframe, to wit:

Ensure that communities, workplaces, and schools support physical, mental, and social well-being for all. This strategy is a holistic approach in the community with a focus on accessibility for all and not just for those who can afford it. The DOH will strengthen interventions to improve healthy settings for schools, communities, and workplaces guided by the Healthy Communities Framework⁵. The signing of Executive Order (EO) No. 138, s.

⁵ DOH-DILG Joint Administrative Order No. 2021-0002 on the National Policy Framework on the Promotion and Recognition of Healthy Communities

2021 on full devolution emphasizes the instrumental role of LGUs in creating health-supportive environments. The implementation and cascading of national policies and initiatives such as National Policy Framework on the Promotion and Recognition of Healthy Communities (DOH-DILG Joint Administrative Order (AO) No. 2021-0002) and the Local Health System Health Promotion Playbooks will be ensured. Extensive implementation of major programs such as the *Gulayan sa Tahanan* and *Gulayan sa Paaralan* will be guaranteed (See subchapters 4.2 and 4.3 and Chapters 5 and 13).

Foster a whole-of-government, whole-of-society approach.

This strategy requires coordinated and sustained efforts from all sectors to emphasize the impacts and responsibilities of non-health sectors to strengthen public

policies and intensify health promotion activities to achieve healthy communities. Community participation and partnership with civil society organizations (CSOs) will be institutionalized in decision-making, problem-solving processes, and program implementation. Health-related programs, activities, and projects, e.g., observance of proper solid waste management, minimization of air and water pollution, and community disaster risk reduction programs of government agencies, LGUs, academe, CSOs, and private entities, will be aligned with the Health Sector Strategy 2023-2028. Gender-responsive health facilities, safety measures for displaced populations and at-risk individuals, and access to routine health, sexual health, and reproductive health services during disasters and emergencies will be promoted.

Outcome 2: Healthy choices and behavior enabled

Strategies under this outcome focus on individual and household levels, complementing the strategies under the first outcome, which are intended on a community level.

Increase health literacy. Health literacy is the ability of an individual or an organization to use health information and make well-informed decisions. Health education campaigns, through the Health Literacy Program and Health Education and Promotion, will be intensified so that individuals and households are more aware of the benefits of a healthy lifestyle and accordingly implement social and behavioral change interventions (See Chapter 5). The family and youth development sessions of the Department of Social Welfare and Development

(DSWD) will be maximized as an advocacy and health promotion platform. On Responsible Parenthood and Family Planning (ResPFP), Commission on Population (PopCom) recommends promoting Social and Behavior Change Communication on ResPFP and Adolescent Health and Development.

Promote appropriate health-seeking behavior. Enable rationale demand where individuals know when and where to seek proper medical care and promote patient navigation and referral from primary to tertiary health care providers. The primary intervention for this is to develop healthy public policies across social determinants of health⁶ (See Chapter 5).

⁶ Health Sector Strategy 2023-2028

Outcome 3: Access, quality, and efficiency of healthcare improved

Harness complementary private sector partnerships for healthcare access and delivery. Establish partnerships with the private sector to complement what the government cannot provide. The establishment of Health Care Provider Network (HCPN)⁷ and Primary Care Provider Network (PCPN)⁸ will be pursued (*See Chapter 10*).

Establish integrated, innovative, and quality health service delivery systems. Ensure the functionality of public and private, local, and national networks to provide innovative and quality health services, e.g., telemedicine at different levels of care, mobile clinics, and ambulance and patient transport services, especially for those in the underserved, unserved, and

GIDAs (*See Chapter 10*).

Secure sustainable and equitable distributed health infrastructure and human resources. There is a need to secure sustainable financial support to ensure the continuous provision of health services through the availability of health infrastructure, e.g., primary and community health facilities, supplies, equipment, and information systems, as well as human resources for health (HRH) at all levels of society. The government will provide a competitive compensation system to attract more HRH workforce. The region will support the implementation of NHRHMP and PHFDP. Table 4.1.3 shows the Bicol Region's projected needs and supply gaps over the next years (*See Chapter 13*).

Table 4.1.3 Projected Needs and Supply Gaps for the Bicol Region, 2025-2040

PROJECTED NEEDS AND SUPPLY GAPS	2025	2030	2035	2040	TOTAL
Primary Care Facilities	418	15	19	18	470
Outpatient Primary Care Physicians	3,521	284	354	380	4,539
Level 1 Hospital Beds	10,609	979	1,059	1,147	13,794
Level 2 Hospital Beds	4,266	358	418	495	5,537
Level 3 Hospital Beds	3,939	454	485	515	5,393
X-Ray Machines	212	22	24	26	284
CT Scan Machines	32	4	4	4	44
MRI Machines	10	1	1	2	14
LINAC Machines	12	2	2	2	18

Source: PHFDP 2020-2040

Ensure financial risk protection through social health insurance. The full implementation of the Universal Health Care (UHC) Act will be the main instrument to achieve this strategy through the *Konsultasyong Sulit at Tama* (KonSulTa) package which provides

comprehensive primary care outpatient benefits. To encourage healthcare providers to enlist as an accredited KonSulTa facility, Philippine Health Insurance Corporation (PhilHealth) will pursue partnerships with the LGUs to assist in the registration process. Filipinos will be able

⁷ Group of primary to tertiary care providers, whether public, private, or mixed, offering people-centered and comprehensive care in an integrated and coordinated manner with the primary care provider acting as the navigator of health care within the network (AO 2020-0019)

⁸ Coordinated group of public, private, or mixed primary care providers, which serves as the foundation of a HCPN (AO 2021-0006)

to access high-quality healthcare services without experiencing financial hardships. Registration for health insurance will be facilitated to promote preventive care,

lessen out-of-pocket expenses, and protect from unexpected and high medical costs (See Chapters 5 and 16).

Outcome 4: Health systems strengthened

Increase local government investments in health. To increase the level of responsiveness to local health needs, there is a need to maximize financial opportunities to increase investments in health, enhance local capacity for health system leadership, management, anticipatory governance, and resilience to public health emergencies, and advance responsive regulatory environments for emerging developments and disruptions. Efforts to strengthen public health to respond to future threats on public health emergencies such as pandemics will be pursued. In view of the Mandanas-Garcia ruling, national government agencies (NGAs) will continue to assist LGUs with the full devolution of basic health and nutrition services (See Chapter 10).

network to support real-time policy and decision-making and increase efficiency, productivity, transparency, and accountability. Fragmented data is one of the lessons highlighted by the COVID-19 pandemic. This strategy will be fostered by implementing the Philippine e-Health Strategic Framework and Plan. Further, the DOH will continue to provide managerial, technical, and financial support to provinces and highly urbanized and independent component cities (HUCs/ICCs) that commit to province and city-wide integration of health systems under the UHC Integration Sites (UHC-IS) program. As of September 2020, out of the 58 provinces/HUCs/ICCs, there are three provincial UHC-IS in the region: Catanduanes, Masbate, and Sorsogon (See Chapter 10).

Accelerate interoperable health information systems. This refers to the harmonization of data from the DOH, LGUs, private service providers, and other stakeholders who are part of the integrated health service delivery

Strengthen health research for evidence-informed policy-making and self-sufficiency in health technology. Advance health RDI to improve healthcare products, services, and policies (See Chapter 10).

Legislative Agenda

Table 4.1.4 Legislative Agenda to Boost Health

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Trans-Fat Elimination	The proposed measure will ban all forms of industrial trans-fatty acids; prohibit the sale, manufacture, importation, and distribution of partially hydrogenated oils, oil, and fats with high trans-fat acid content.	DOH, Food and Drug Administration, and Department of Science and Technology (DOST)
Establishment of Specialty Centers	This bill seeks to establish specialty centers that provide and improve access to specialized healthcare services.	DOH
Creation of the Philippine Center for Disease and Prevention Control	The following are the key features of the proposed measure: (a) creation of the CDC under the DOH for policy and program coordination; (b) ensuring the health system is well-prepared to forecast, prevent, monitor, and control diseases, injuries, and disabilities both of national and international concern; (c) re-centralization of local epidemiology and surveillance units; (d) strengthening epidemiology, public health surveillance, and research capacities; and (d) ensuring investments better to equip the country in response to public health emergencies.	DOH

PROPOSED BILL	RATIONALE/KEY FEATURES	LEAD AGENCY
Creation of the Virology and Vaccine Institute of the Philippines (VIP)	This Institute will be an attached agency of the Department of Science and Technology. It will serve as the country's top virology laboratory, providing investigations, research, and technical coordination of the entire network of virology laboratories across the country.	DOST
Establishment of a Medical Reserve Corps (MRC)	The MRC will include licensed physicians, medical degree holders, students who have completed four years of a medical course, registered nurses, and licensed allied health professionals who may be called upon to assist the national government, its agencies and instrumentalities, and the LGUs in addressing the medical needs of the public. The President will have the authority to order the nationwide mobilization of the MRC to complement the Armed Forces of the Philippines (AFP) Medical Corps in case of declaration of a state of war, lawless violence, or state of calamity.	DOH
Institutionalization of the e-Health Medicine	This will provide a policy framework for the provision of wider access to quality and innovative healthcare services, especially to geographically-isolated and disadvantaged areas through electronic means using Information and Communication Technologies.	DOH

Subchapter 4.2 Improved Education and Lifelong Learning

Continued education goes beyond career advancement. Lifelong learning is developing skills beyond an individual's formal education. It is a personal process and is seen as increasingly vital in the future and growth of the education sector. For individuals, it will lead to a better quality of life as it increases self-fulfillment,

competitiveness, and employability. With the rising demand for lifelong learning, the education sector should be able to meet the future demand through the diversity of learning opportunities, accessibility for learners of all ages, and flexibility in learning modalities.

Assessment and Challenges

Assessment

Landmark reforms were enacted. Since 2017, several landmark reforms were enacted, i.e., Philippine Qualifications Framework Act (RA 10968), Second Congressional Commission on Education or EDCOM II (RA 11899), Excellence in Teacher Education Act (RA 11713), *Tulong-Trabaho* Act (RA 11230), Universal Access to Quality Tertiary Education Act (RA 10931), and Transnational Higher Education Act (RA 11448).

New curricular programs were developed to foster 21st-century competencies. Among these new curricular programs offered are (a) Bachelor of Science (BS) in Tourism Management major in Agri-tourism, and Bachelor in Technical-Vocational Teacher Education in Central Bicol State University of Agriculture (CBSUA), (b) BS Architecture in Catanduanes State University (CatSU), and (c) Master of Arts in Nursing in Camarines Sur Polytechnic Colleges (CSPC). CBSUA is also the only tertiary school in the region that

offers Master of Science in Disaster Risk Management.

The CatSU also partnered with the University of the Philippines Los Baños for collaborative research undertakings for faculty teachers. The Abaca Technology Innovation Center continues to provide training programs for abaca farmers on sustainable productivity through a biological approach.

The CSPC and DOST-PCIEERD signed a memorandum of agreement for establishing an artificial intelligence (AI) research center to promote research studies using AI for disaster risk management, agricultural management, community development, and data-driven policy development.

Challenges

Improving the quality of higher and technical education despite surpassing the targets on youth placed in education and training. There are 16,861 graduates of technical and vocational education and training (TVET) programs who were beneficiaries of scholarship programs in 2021, 79 percent of whom were employed, surpassing the 65 percent target. Relative to certification, 53 percent of graduates with training regulations were certified five days after graduation, while 69 percent of skilled workers were certified within seven days after application. For CatSU, 15.65 percent of students were awarded scholarship grants and financial assistance. However, higher and technical education quality remains challenging despite various students' financial assistance programs.

Determining the quality of outcomes of different learning modalities implemented. Among the learning modalities implemented were Distance Learning, Modular Distance Learning,

Online Distance Learning, Home Schooling, Blended Learning, Traditional Face-to-Face Learning, and Alternative Delivery Modes. Learning continuity was ensured through adjustments and modifications in the K to 12 curricula and training workshops on different modalities to ensure alignment and contextualization of learning resource materials. However, student learning outcomes need to be adequately assessed, and data from student learning should be disseminated promptly.

Tracking Senior High School (SHS) graduates in terms of their path (e.g., entrepreneurship, employment, college, middle-level skills training). The DepEd Region 5 needed help in conducting a tracer study for SHS graduates since 2017 concerning curriculum exits. The pandemic aggravated the situation and halted the tracer study due to realigned priorities.

Reducing job and skills mismatch. The workforce produced by the education and training system has yet to be aligned with the skills demanded in the labor market, which constantly changes due to economic threats, disruptions, and emerging technological advancements. The education and training systems will continuously adapt to these changes.

According to the 2022 Jobsfit Regional Report by the Department of Labor and Employment (DOLE), among the key employment generators are agribusiness, cyberservices, construction, banking and finance, manufacturing, ownership dwellings and real estate, transport and logistics, and renewable energy. In-demand occupations include agriculturists, computer programmers, software and web developers, systems engineer, business process outsourcing, accountant, mechanical engineers, automotive mechanic, heavy equipment

operators, and checkers. Lastly, hard-to-fill occupations include veterinarian, electrical engineer, information technologist, and chemical analyst.

Improving support and complementation among local universities and colleges (LUCs) and state universities and colleges (SUCs). LUCs tend to serve the most vulnerable population of students, yet they are mostly underfunded. LUCs need the necessary resources from the SUCs, LGUs, and national government to support the needed investments for the students and cope with emerging educational and

technological advancements. In Bicol Region, 17 out of 78 LUCs nationwide are covered under Republic Act No. 10931 or the Universal Access to Quality Tertiary Education Act.

Narrowing the gap in reading and basic literacy skills due to the pandemic. The pandemic disrupted the foundation of young learners on early/basic literacy. Learning how to read is a crucial development skill in children. Their ability to acquire new knowledge depends on their ability to understand the context of their reading.

Targets

The focus is to improve the quality of education and expand access to lifelong learning opportunities through: (a) enhanced curriculum and programs; (b) improved access to quality learning resources; (c) strengthened competencies

of teachers and education executive officers; (d) improved learners' proficiency across all levels; (e) promotion of knowledge co-creation, and (f) establishment of innovation hubs and incubation centers.

Core Indicators

Table 4.2.1 presents indicators and targets for lifelong learning opportunities.

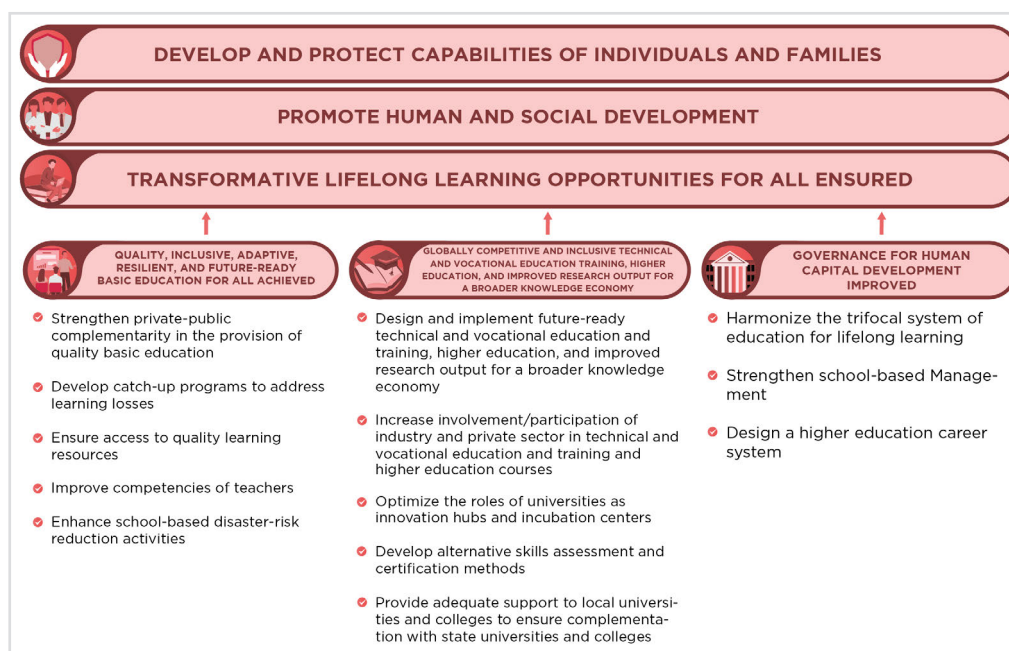
Table 4.2.1 Core Indicators to Improved Education and Lifelong Learning

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Proportion of learners achieving at least "Proficient" in the National Achievement Test (NAT) (%) in Reading								NAT Results, Learner Information System (LIS), Enhanced Basic Education Information System (EBEIS)	DepEd
Grade 6	3.33 (2016)	10.00	16.66	23.33	30.00	36.67	43.33		
Grade 10	1.74 (2017)	8.63	15.53	22.42	29.32	36.21	43.11		
Grade 12	0.10 (2017)	7.23	14.36	21.49	28.61	35.74	42.87		
Proportion of learners achieving at least "Proficient" in the National Achievement Test (NAT) (%) in Mathematics								NAT Results, LIS, EBEIS	DepEd
Grade 6	1.14 (2016)	8.12	15.10	22.08	29.06	36.04	43.02		
Grade 10	0.34 (2017)	7.43	14.53	21.62	28.72	35.81	42.91		
Grade 12	0.02 (2017)	7.16	14.30	21.44	28.58	35.72	42.86		

Indicator	Baseline (Year)	Annual Plan Targets						Means of Verification	Responsible Agency
		2023	2024	2025	2026	2027	2028		
Net Enrollment Rate								EBEIS	DepEd
Elementary	88.80 (2021)	89.97	91.14	92.31	93.49	94.66	95.83		
Junior High School	83.49 (2021)	85.42	87.35	89.28	91.21	93.14	95.07		
Senior High School	56.50 (2021)	62.29	68.07	73.86	79.64	85.43	91.21		
Completion Rate								EBEIS	DepEd
Elementary	73.95 (2020)	77.24%	80.54%	83.83%	87.12%	90.41%	93.71%		
Junior High School	67.85 (2020)	72.01%	76.18%	80.34%	84.51%	88.67%	92.84%		
Senior High School	51.05% (2020)	57.61%	64.18%	70.74%	77.31%	83.87%	90.44%		
TESDA Certification Rate	92% (2022)	92%	93%	93%	94%	94%	95%	T2 TESDA Management Information System (MIS) / RWAC	TESDA
Number of TVET trainers certified	150 (2022)	150	160	160	180	180	200	T2MIS/MIS 0302	TESDA

Strategy Framework

Figure 4.2.1 Strategy Framework to Improve Education and Lifelong Learning



Strategies

Outcome 1: Quality, inclusive, adaptive, resilient, and future-ready basic education for all achieved

Strengthen private-public complementarity in the provision of quality basic education.

The DepEd will continue to improve and expand access to quality basic education through the SHS Voucher Program (SHS VP) and Educational Service Contracting (ESC). The SHS VP and ESC provide subsidies to qualified learners in certified private schools that aim to strengthen the complementary roles of private and public educational institutions in the country. According to the Private Education Assistance Committee⁹ (PEAC), there are 145 ESC-participating schools in the Bicol Region. In addition, PEAC also administers the Teachers' Salary Subsidy (TSS) to

qualified teachers in ESC-participating schools. There are deliberations to expand the voucher program to elementary level and increase the voucher amount. This will help achieve the ideal ratios on teacher-to-student, classroom-to-student, and student-to-textbooks. Inclusion of learners with disabilities in regular classes will be promoted, thus the need to improve school facilities and learning materials and capacitate school teachers. As of December 1, 2022, there are 1,788,491 enrolled learners from Kinder to Grade 12. Based on Table 4.2.2, the net enrollment rates at all levels in public schools are significantly higher than in private schools.

Table 4.2.2 Net Enrollment Rate by Level and Type of School in the Bicol region, SY. 2020-2021

LEVEL	PUBLIC (%)	PRIVATE (%)	TOTAL (%)
Kinder	59.87	2.43	62
Grades 1-6	84.24	3.02	87.26
Grades 7-10	66.03	9.06	75.09
Grades 11-12	33.21	10.31	43.52

Source: EBIES, DepEd

Develop catch-up programs to address learning losses.

This will reduce, if not reverse, the negative impact of prolonged distance learning on the learning outcomes. Alternative Learning System (ALS) will be promoted, and additional community learning centers will be established. (See Chapter 10). Among the strategies to address the widening gap in reading and basic literacy skills due to the pandemic are: (a) crafting of Region 5 Learning Recovery Plan; (b) implementation of the 8-Week

Curriculum for Grades 1-3 focused on the foundation skills in literacy and numeracy; (c) conduct of capacity building on early literacy for teachers; and (d) implementation of the Bicol *Brigada Pagbasa* Program, e.g., *Bawat Bata Bumabasa* Advocacy and *Bawat Batang Bikolano Bihasang Bumasa* Campaign. In addition, DepEd to conduct regular and timely progress assessments on utilizing self-learning modules (SLMs) and monitoring curriculum implementation in the new normal.

⁹ Entity contracted by DepEd to administer the ESC and TSS programs. PEAC is the trustee of the Fund for Assistance to Private Education which is a perpetual fund used to provide assistance to private education.

Ensure access to quality learning resources.

Learning resources include textbooks, online learning management systems, and open-access references. The DepEd Region 5 identified the continued support for the development of localized supplementary reading materials and strengthened support for school libraries as effective strategies for learning. Blended learning modalities will continue to be utilized to meet the growing demands for learning (*See Chapter 10*).

Improve competencies of teachers.

This will be through review

of teacher workload, pre-and in-service teacher training, and adopting new pedagogical practices such as using open educational resources and gamification of learning.

Enhance school-based DRR activities.

Enforce implementing the policy integrating DRR in school curricula, including providing psychosocial support, learning, and teaching kits during calamities, clear mechanisms on alternative delivery modes, and temporary learning spaces (*See Chapter 16*).

Outcome 2: Globally competitive and inclusive TVET, higher education, and improved research output for a broader knowledge economy

Design and implement future-ready TVET programs and higher education courses.

This will prepare learners for the world of work and Industry 4.0. Ladderized programs will be promoted (*See Chapter 10*). The Mariners Polytechnic Colleges Foundation (MPCF) Legazpi is set to offer new academic and training programs on Boat Building and Repair, Coastal Ecotourism and Resource Management, and create ladderized programs for maritime.

Increase involvement/participation of industry and private sector in TVET and higher education courses.

This will make curricular programs more responsive to labor market needs and demands, address local communities' needs, and promote lifelong and adult learning. The TESDA will continue implementing the: (a) enterprise-based training (EBT) programs, e.g., Dual Training System, Apprenticeship, and Learnership and Supervised Industry Learning; and (b) area-based and demand-driven TVET policy reform through

the conduct of regional/provincial skills mapping and develop programs based on the identified skills priorities. Tax incentives will be considered to increase the participation of enterprises and companies in EBT. The Commission on Higher Education (CHED) and TESDA also need to expand their reskilling and retooling programs. Higher education institutions (HEIs) will conduct matching program outcomes of curricular offerings with industry needs to address skills and competencies matching. DOLE must provide timely and accurate labor market information (LMI) (*See Chapter 6*).

Optimize the roles of universities as innovation hubs and incubation centers.

This is to institutionalize collaboration, create new knowledge and skills, promote the conduct of cutting-edge research, and develop new technologies (*See Chapters 8 and 10*). Inter-regional partnerships among HEIs will be fostered to increase university networks, promote student mobility, and joint education programs and researches.

Develop alternative skills assessment and certification methods.

This effectively evaluates student performance and skills gaps and validates acquired skills. Micro-credential is the skill sector being explored to respond to changing nature of work and address growing skill gaps caused by Industry 4.0, increasing globalization, aging populations, climate change, and technological advancements such as AI. As defined by researchers, a micro-credential covers more than a single course but is less than a full degree, e.g., certification badges in specific topics such as digital literacy, data analytics, cybersecurity, etc. This will address concerns to meet the demands for reskilling and upskilling (See Chapters 6 and 9).

Under techvoc training, to address limited opportunities for upskilling and reskilling, TESDA will promote the Competency Assessment and Certification of Workers program.

Provide adequate support to LUCs to ensure complementation with SUCs.

LUCs and SUCs need to supply mutual needs or offset mutual lacks through: (a) sharing of resources and capabilities through the provision of support in instruction, research, and extension; (b) conduct of capacity building and technical assistance in curriculum, faculty, and leadership development; and (c) promotion of research collaboration (See Chapter 10).

Outcome 3: Governance for human capital development improved

Harmonize the trifocal system of education for lifelong learning.

The Philippine Qualifications Framework (PQF), Philippine Skills Framework (PSF), and ASEAN Qualifications Reference Framework (AQRF) seek to address fragmented strategies among education institutions. Partnerships with local and international institutions will enhance continuing professional development, credit transfer schemes for pathways and equivalency systems to facilitate standards comparability and professional mobility, i.e., graduates recognized in Association of Southeast Asian Nations (ASEAN). Learning materials will be developed which are aligned with international standards and trends to ensure updated international education frameworks, standards, and competencies. (See Chapter 6).

Strengthen School-based Management (SBM)¹⁰

to enable schools to better respond to the education needs of the communities, increase learner participation, and maximize student learning outcomes. Every school is mandated to practice SBM starting from the School Improvement Plan which are used as inputs to the Division Basic Education Plans and then consolidated into Regional Basic Education Plan. The School Governing Council (SGC) composed of teachers, parents, LGU, and other community members, discusses school management issues and promotes stronger link with the community.

Design a higher education career system

to improve the efficiency of institutional governance in state-run HEIs. A merit-based career system will be established to enhance the capacities

¹⁰ DepEd thrust that decentralizes decision-making from the Central Office and field offices to individual schools to enable them to better respond to their specific education needs. (DepEd Department Order No. 029, s. 2022 Adoption of the Basic Education Monitoring And Evaluation Framework).

of HEI executives and comply with global education standards and practices.

Legislative Agenda

Table 4.2.3 presents legislative measures for consideration by Congress.

Table 4.2.3 Legislative Agenda to Improve Education and Lifelong Learning

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Review of the Country's Basic Education System towards Improving the Enhanced Basic Education Act of 2013	The proposed law seeks to revisit the K-12 curriculum to make the graduates more readily employable, better equipped with critical thinking and problem-solving skills, and imbued with the skills and capacities needed to be productive and active citizens of the country.	DepEd
Expansion of the National Feeding Program in secondary schools	The proposed law addresses what is identified as among the biggest problems of the student population by expanding the coverage of the School-Based Feeding Program (SBFP), as mandated by RA 11037, to include learners from Grades 7 to 12 to ensure that proper government interventions are in place for the youth in their formative and adolescent years.	DepEd
Expansion of the Government Assistance to Students and Teachers in Private Education (GASTPE) to Elementary Level	In recognition of the complementary role of private schools in providing basic education to Filipino learners, the measure aims to expand the existing government assistance for high school students and teachers in private education to include students in private schools from kindergarten up to Grade 6 level. The TSS is also proposed to be expanded to cover teachers employed in private elementary schools.	DepEd
Strengthening the TVET in the Philippines by incorporating Apprenticeship and Dual Training System, providing for Continuous Training of the Unemployed, and Expanding the Provision of Enterprise-Based Education and Training	This proposed measure aims to incorporate the existing programs under the "EBT Program" administered by TESDA and expand the provision of training programs implemented within companies. The program can be a mix of workplace training and classroom-based learning. Strengthening partnerships among LUCs, TESDA, and TVET institutions are suggested to be highlighted to ensure that programs will cater to community needs and priorities, including agri-entrepreneurship.	TESDA

Subchapter 4.3 Establish Livable Communities

This subchapter takes a more comprehensive outlook on establishing communities through: (a) adequate, inclusive, accessible, and resilient human settlements; (b) increasing mobility and connectivity; (c) improving environmental quality; (d) promoting the social environment, and (e) advancing responsive governance. This chapter will

be guided by the core strategies of the Bicol RPFP 2021-2050, namely: concentration, connectivity, and vulnerability reduction. Network of growth centers will be developed and the islands of Masbate and Catanduanes will be self-sufficient and have improved digital and physical accessibility.

Assessment and Challenges

Assessment

Socialized housing projects posted a

high occupancy rate. Notwithstanding the pandemic in 2021, the occupancy rate for socialized housing exceeded the

target of 15 percent by 50.63 percent. The number of produced/taken out socialized housing units increased with 901 units (lots only) in Albay, 288 units (house only) in Camarines Sur and Sorsogon, and 728 units (house and lot package) in Camarines Sur. Further, four government resettlement sites were completed with complete housing facilities prior to occupancy, namely, Juban Housing Project, Bato Resettlement Project, Isarog Village, and Kinamaligan Resettlement Project.

Availment of home financing programs increased. For the Community Mortgage Program, the Social Housing and Finance Corporation (SHFC) has processed and taken out one project in Barangay San Vicente, Baao, Camarines Sur. The project has provided home lots to 200 households.

The Home Development Mutual Fund (HDMF) approved housing loans of 1,995 units in mortgage financing and released funds of PHP1.57 billion. The accomplishment is 133.36 percent higher than its target of 1,496 units for CY 2021 and 101.92 percent higher than its accomplishment in CY 2020.

Intensified monitoring of air and water quality management. Additional Air Quality Monitoring Stations (AQMS) were constructed in the provinces of Albay, Camarines Norte, Camarines Sur, Masbate, and Sorsogon and cities of Tabaco and Ligao to monitor the Total Suspended Particles and Particulate Matter (PM 10) concentration. A real-time air quality monitoring system for Legazpi City and Naga City stations through the DENR Dashboard is also accessible.

For water quality management, 35 water bodies were monitored in 2021, including 25 adopted *esteros*. Five waterbodies were

endorsed for classification.

Challenges

Reducing unmet housing needs for informal settler families (ISF). The Resettlement Assistance Program for LGU (RAP-LGU) is a joint undertaking of NHA with LGUs to address the housing requirements of ISF affected by government infrastructure projects, those living in dangerous areas, and IPs. In 2021, NHA completed 79.54 percent or 15,671 units of 19,701 target units of housing assistance. However, completion rate of the Resettlement Program was low at only 41.30 percent or 567 units of 1,373 target units.

Among the difficulties encountered were: (a) failure of the developer to comply with some requirements of the Regional CBIA Technical Working Group (RCTWG), causing a delay in the launching of the expansion project of Mauraro Resettlement Project Phase 2 for the victims of Mayon Volcano eruption; (b) fund unavailability for the 14 permanent housing units for the Typhoon Yolanda Project; (c) delayed processing of housing-related documents such as permits and clearances; and (d) limited land for socialized housing development and difficulty in identifying lots as relocation sites in some LGUs.

Increasing number of LGUs with Local Shelter Plans (LSP) and decreasing housing backlogs. LSP includes identifying housing needs, inventory of resources, analysis of shelter issues and concerns based on the community's existing local dynamics, and developing strategies to address the identified housing and development concerns. As of December 2021, only 20 of the 114

LGUs have drafted LSPs. Based on the LSP, the total housing backlog is 451,649 units with a total area of 3,634.02 hectares. Further, there are 359,201 total informal settler families.

The Department of Human Settlements and Urban Development¹¹ (DHSUD) intensified the provision of capacity-building training on the: Comprehensive Land Use Plan (CLUP) formulation; Climate and Disaster Risk Assessment (CDRA) and Geographic Information System (GIS); Land Use Development and Infrastructure Plan (LUDIP); and Land Use and Zoning Information System (LUZIS). 104 out of 114 LGUs across the region have already formulated their CLUP, 17 of which have updated CLUP per EO 72, s. 1993.

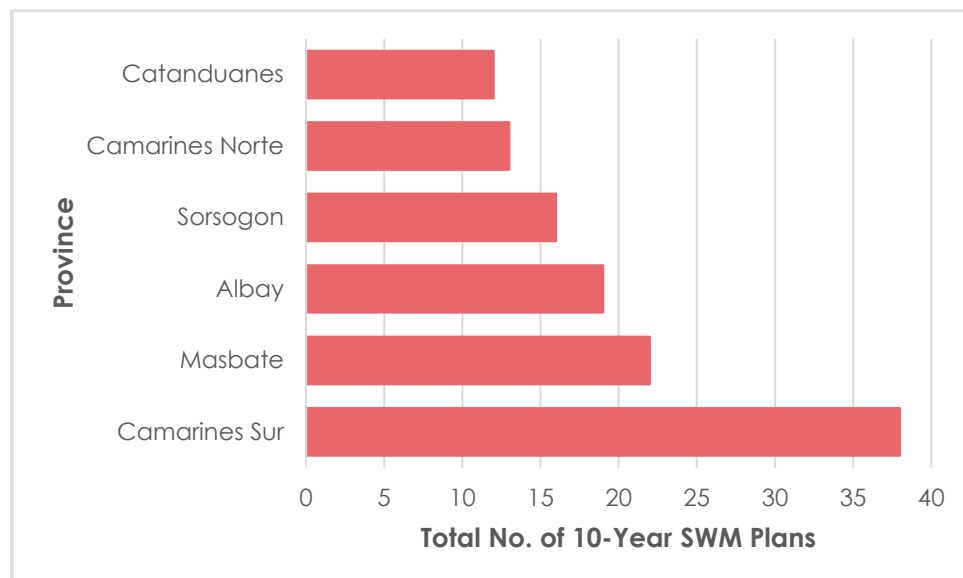
Strengthening the implementation of basic solid waste management. RA 9003 or the Ecological Solid Waste Management Act of 2000, still needs to be fully implemented. There are 1,103

material recovery facilities (MRF) in the region, 490 of which are in Albay, 47 in Camarines Norte, 223 in Camarines Sur, 80 in Catanduanes, 85 in Masbate, and 178 in Sorsogon. There are eight operational sanitary landfills in the region, with 33 servicing LGUs. From 2023 to 2025, the DENR projects that a total of 3.28 million tons of waste will be generated in the region¹².

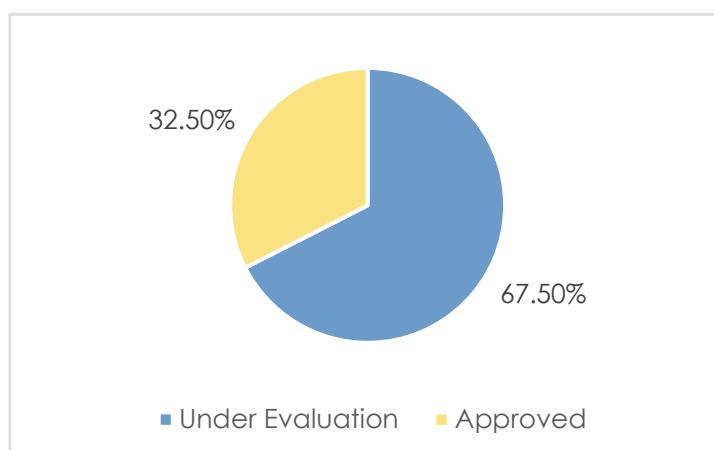
Recent data on the approval of the ten-year Solid Waste Management (SWM) Plan shows that most of the SWM plans in the region are still under evaluation.

Upgrading of the standard design for decent and resilient housing. Key shelter agencies (KSAs) need to upgrade house designs to meet the demands and needs of the target end-users and be resilient to extreme natural hazards. Among the concerns to be considered is the land/floor area of the housing unit vis-à-vis target-end users' profiles.

Figure 4.3.1 Solid Waste Management Plans, by Province in the Bicol Region, 2022



11 The DHSUD was created by RA No. 11201 which comprises the Housing and Land Use Regulatory Board (HLURB) and the Housing and Urban Development Coordinating Council (HUDCC) and has the primary mandate of managing housing and related development.
12 Breakdown of waste generation from 2023 to 2025: 0.85 million tons from Albay, 1.1 million tons from Camarines Sur, 0.30 million tons from Camarines Norte, 0.11 million tons from Catanduanes, 0.46 million tons from Masbate, and 0.45 million tons from Sorsogon.



Source: EMB

Targets

Establish livable communities and upgrade conditions of existing communities where all residents equitably access civic, social, and socioeconomic opportunities through

the availability of basic services and facilities, improved environmental quality, enhanced mobility and connectivity, and responsive governance.

Core Indicators

Table 4.3.1 presents the indicators and targets to establish livable communities.

Table 4.3.1 Core Indicators to Establish Livable Communities

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Number of CSOs accredited by the Provincial/Municipal/City Sanggunian	Province: 106 C/MLGUs: 1,832 [2022]	Increasing						Report submitted by the field	DILG
Proportion of barangays served by MRFs	41% [2021] Total no. of Brgys: 3,471	43% / 1,492.53	45% / 1,561.95	46% / 1,631.37	49% / 1,700.79	51% / 1,770.21	51% / 1,839.63	Annual SWM Report	DENR-EMB
Proportion of cities/municipalities served by SLFs	7 [2022]	7	7	5	5	5	5	EMB Report	DENR-EMB, LGU
Percentage of water bodies conforming with water quality guideline values for the following intended use									
Water supply	0% [2021]	17%	17%	33%	33%	50%	50%	Annual Water Quality Report	DENR-EMB
Food production	0% [2021]	13%	25%	25%	38%	38%	50%		
Primary contact recreation use	46% [2021]	54%	54%	62%	62%	69%	69%		

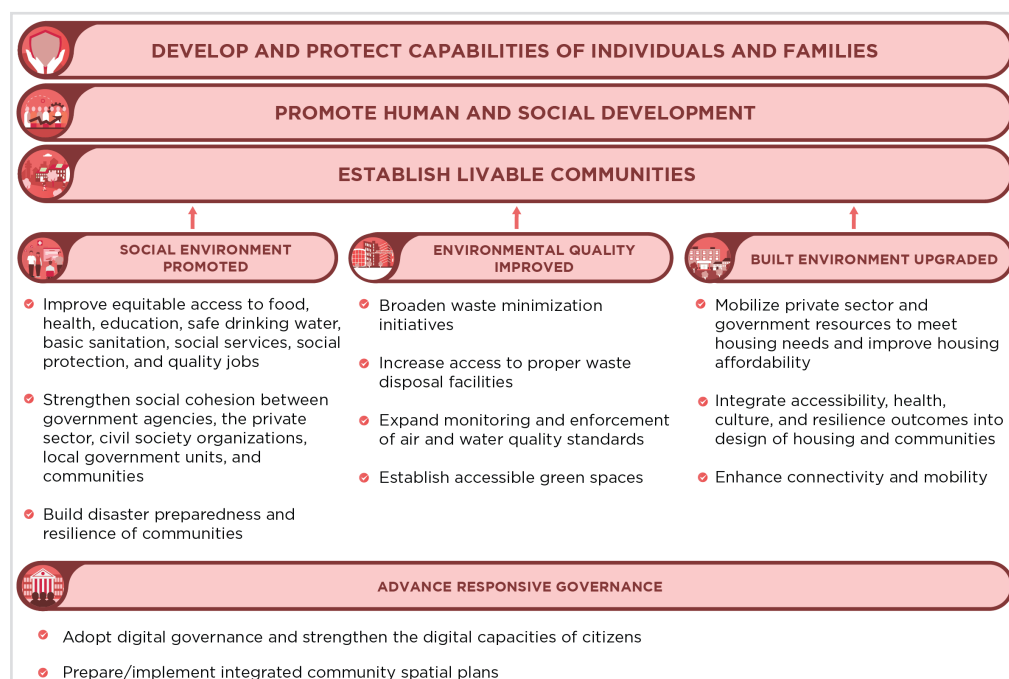
INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of highly urbanized and other major urban centers within ambient air quality guideline values for particulate matter (PM) 10 and 2.5	59% 2021	60%	62%	64%	66%	68%	70%	Annual Air Quality Report	DENR-EMB
Housing units started/ financed	3,888 [2022]	8,774	11,385	12,557	9,357	4,714	907	Progress report	DHSUD, KSAs, LGUs
Occupancy Rate	10% [2022]	10%						Progress report	DHSUD, KSAs, LGUs
Percentage of LGUs preparing risk-informed plans									
CLUP	16% or 18 LGUs [2021]	Increasing					40%	Progress report	DHSUD, LGUs
With Approved Local Shelter Plans	17% or 20 LGUs [2021]	Increasing					30%		
With Local Housing Boards created	23% or 27 LGUs [2021]	Increasing					35%		

Strategy Framework

The domains of a livable community include promoting the social environment, improving environmental quality, and upgrading of built environment supported by responsive governance.

A livable community equitably serves all the residents regardless of background and provides opportunities to engage in socioeconomic activities.

Figure 4.3.2 Strategy Framework to Establish Livable Communities



Strategies

Outcome 1: Social environment promoted

Improve equitable access to food, health, education, safe drinking water, basic sanitation, social services, social protection, and quality jobs. Ensure that fundamental human necessities are accessible to satisfy the residents' needs, such as basic services and facilities like markets, hospitals, social services, recreational facilities, police stations, fire stations, and schools. The programs that are carried out to achieve this are *Gulayan sa Tahanan*, *Gulayan sa Paaralan*, *SBFPs*, and *Medical Assistance to Indigent Patients*, among others. For employment generation in coastal areas, among the strategies are sustainable fisheries and use of marine resources, development of aqua-based enterprises, fostering technological innovations, and inclusion of the Blue Economy concept as a major component for economic growth in the region (See subchapters 4.1 and 4.2, Chapters 5, 6, 7, 12, 13, 14, and 16).

Strengthen social cohesion among government agencies, the private sector, CSOs, LGUs,

and communities. Encourage communities to participate in civic, cultural, recreational, and sports activities. Develop physical and virtual cultural spaces for social interactions, such as parks, libraries, museums, and sports facilities. Promote gender-sensitive and culture-responsive interventions to promote the welfare of vulnerable groups (See Chapter 15).

Build disaster preparedness and resilience of communities. The Bicol Region is among the most vulnerable regions to climate and disaster risks. There is a need to adopt gender-responsive and inclusive community risk assessment and disaster preparedness. Community disaster preparedness is complemented by private and government efforts through establishment of early warning systems (EWS), provision of livelihood, and construction of flood control, coastal protection, permanent evacuation centers, and other critical infrastructure and facilities (See Chapters 5, 13, 15, and 16).

Outcome 2: Environmental quality improved

Broaden waste minimization initiatives. Air and water pollution are widespread in both urban and rural areas. There is a need to steer behavioral change at the individual, household, and community levels on proper waste management and sustainable consumption and production. Recycling, composting, banning single-use plastics, and strict monitoring of waste recovery are crucial. Moreover, there is a need to institutionalize the adoption of developed technologies and science-based policy recommendations to improve monitoring

systems for waste, water, and air pollution. The Extended Producer Responsibility Act (RA 11898) mandates large-scale companies to manage plastic packaging properly, especially in the post-consumer stage (See Chapters 8, 10, and 13).

Increase access to proper waste disposal facilities. Fast-track approval of SWM plans and implement clustering of facilities such as MRFs and sanitary landfills. The DENR will continue to provide capacity-building activities. Innovation and science-based policy

recommendations, e.g., waste-to-energy, will be promoted in all LGUs to develop septage management programs, sewerage systems, and sanitation improvement projects.

Expand monitoring and enforcement of air and water quality standards. Air and water quality monitoring and standards will be enforced. Implementation of multistakeholder initiatives such as clean-up drives and rehabilitation of water bodies will be continued. The DENR will strictly monitor compliance with the Philippine Clean Air Act (RA 8749), Philippine Clean Water Act (RA 9275),

Solid Waste Management (RA 9003), and other environmental laws.

Establish accessible green spaces. The LGUs will allocate and develop land for green and open spaces for parks, social and cultural events, and urban farming for all; and promote the use of multifunctional green spaces in housing designs such as green roofs. This will help improve air quality and reduce urban heat. Further, LGUs, in partnership with the DOT, need to conduct carrying capacity studies to preserve the ecological integrity of ecotourism communities (*See Chapters 5 and 16*).

Outcome 3: Built environment upgraded

This pertains to the community's physical parts, e.g., houses, roads, and utility distribution systems, that should be inclusive, connected, and integrated to achieve sustainable human settlements. A responsive population management program will be implemented to rationalize distribution of population including migrants and displaced citizens, and improve access to social, employment, and infrastructure facilities.

Mobilize private sector and government resources to meet housing needs and improve housing affordability. Financing support from the private sector through development loans, homeowner's lending programs, and real estate mortgages of private banks will be mobilized. The KSAs will increase housing production. The DHSUD will subsidize interest payment support and the LGUs will improve planning, financing, and implementation of housing programs. Some programs of the DHSUD include: (a) *Pambansang Pabahay para sa Pilipino* Program; (b) Home for Every Juan Program, a housing program for IPs, former rebels,

government employees; (c) Settlement Upgrading; and (d) resettlement programs.

Additional subsidies for ISFs and low-income families will be explored. Aside from financing concerns, measures to address issues on land availability, construction materials, and workers will be undertaken.

Integrate accessibility, health, culture, and resilience outcomes into the design of housing and communities. Houses will be affordable, inclusive, accessible, efficient, and will provide tenure security. Houses are designed to be responsive to the needs of target end-users, e.g., young professionals, rebel-returnees, and family homes, for adequate spaces which conform with cultural norms and are resilient to the impacts of health emergencies, climate change, and disaster risks. Green features in housing and community designs will be adopted, such as renewable energy, rainwater harvesting systems, and energy-efficient materials (*See Chapter 16*).

Enhance connectivity and mobility. This entails the provision of a connection to utilities, e.g., water, electricity, and telecommunications. Transportation links to economic, social, and cultural places will be in place to ensure continued access to food and basic services, health facilities, and places of work. The road system will be well-designed, connected to public transportation, and provided with ample drainage to avoid disruptions from floods and safe routes in emergencies. Connectivity will also

adopt active mobility options such as walking and cycling, which are affordable and accessible to everyone. LGUs will prioritize the use of renewable energy sources (See Chapter 13). Ongoing and proposed major programs and projects to enhance transportation include the widening of AH26 and other national roads, and construction of the SLEX TR5, Sorsogon-Samar Link Bridge, Legazpi City-Tabaco City Alternate Road Project, and PNR SLH Project, among others.

Outcome 4: Responsive governance advanced

Adopt digital governance and strengthen the digital capacities of citizens. Adopt smart governance to facilitate better information and service delivery, promote transparency, and involve communities in decision-making. Conduct of a massive awareness campaign to promote digitalization will be pursued (See Chapters 10 and 15).

Prepare/implement integrated community spatial plans. Spatial planning is an essential tool to achieve more livable communities. Adopt and

implement integrated and connected spatial plans for communities with LGUs strictly safeguarding the No Build Zones in hazardous areas. Consider the National Urban Development and Housing Framework and National Spatial Strategy for regional development and ensure that all LGUs have already formulated and updated their respective CLUPs. An information system is also recommended to access timely and relevant housing data such as but not limited to the inventory of idle lands, compliance with housing-related policies, and housing backlogs.

Legislative Agenda

Table 4.3.2 presents the priority legislations proposed to establish livable communities.

Table 4.3.2 Legislative Agenda to Establish Livable Communities

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
National Land Use Bill	Address practical land availability constraints for housing development by legislating options such as removing the Comprehensive Agrarian Reform Program (CARP) restrictions to land consolidation while maintaining land ownership by beneficiaries, completing an inventory of protected areas to ascertain land for development, and tapping idle/unutilized private lands.	DHSUD
Rental subsidy and access to public rental housing	Improve access to and affordability of housing, especially for the ISFs, homeless, and underprivileged.	DHSUD

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Strengthening of KSAs NHA Act Amendments to the NHMFC Charter	Renew the NHA Charter and strengthen its organizational structure and functions. Broaden mandate to allow securitization of mortgages and other housing-related receivables or loans, resulting in increased funds available for housing development.	DHSUD
Unnecessary Plastic Products Regulation Bill	Phase out single-use plastic.	DENR
Maritime Safety, Security, and Prevention of Ship- Sourced Pollution Bill	Prevention and control of marine pollution from any vessel.	Philippine Coast Guard (PCG), DENR, DOST

05

**Reduce Vulnerabilities
and Promote Purchasing
Power**

Reduce Vulnerabilities and Protect Purchasing Power

This chapter aims to contribute to achieving SDG 2: Zero Hunger, SDG 3: Good Health and Well-being, SDG 10: Reduced Inequalities, and the *Ambisyon Natin 2040*, which articulates the Filipinos' desire for a stable and high-level of well-being.

To reach this level of well-being, the government will establish a transformative social protection system that enables every Filipino to adequately plan for, respond to, and recover from any economic shock. This can be done by ensuring food security, stabilizing food prices, expanding food supply sources, improving access to food during emergencies, optimizing digital marketing platforms, and expanding access to social protection programs that can manage risks, address vulnerabilities, and increase Bicolanos' resiliency to potential shocks.

Subchapter 5.1 Ensure Food Security and Proper Nutrition

Assessment and Challenges

Assessment

Food security remains a challenge despite efforts on increasing food supply. Programs to increase agricultural production and food supply were continuously implemented. Despite the efforts, food security remains a challenge, especially in regards to affordability and sustainability¹³. The country scored 59.3 on the Global Food Security Index 2022. Food affordability scored 71.5, availability at 55.2, quality and safety at 65.30, and sustainability at 41.8. A similar indicator is not available at the regional level. However, statistics indicate the region's difficulty in attaining food security levels because of certain events and external crises affecting

the country, causing high inflation and the cost of food production to rise. For instance, the pandemic restricted mobility and hampered the timely delivery of social services and the supply of goods, especially in the island provinces. This resulted in a significant increase in food inflation in 2021 to 5.5 percent from -0.3 in 2019 and 3.1 percent in 2020. Although this was lower than 9.4 percent in 2018, it was the highest since 2010.

To increase agricultural production and food supply, various subsidy programs for farmers were implemented by the Department of Agriculture (DA) Region 5. In 2020, a Financial Subsidy to Rice Farmers (FSRF) of PHP5,000.00 each, or

¹³ Food security as defined by The World Bank is when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food security has four dimensions: availability, accessibility, affordability, and sustainability.

a total of PHP294.33 million, was released to 58,874 Bicolano farmers, broken down as follows: Albay (19,891), Camarines Sur (22,584), Masbate (6,168), and Sorsogon (10,231). Under the Expanded Survival and Recovery Assistance Program (SURE Aid), a total of PHP94.00 million was released to MSMEs and PHP92.75 million was released to farmers. One application for *Kapital Access for Young Agripreneurs* (KAYA) was approved in 2020, amounting to PHP315,000.

The *Kadiwa ni Ani at Kita* retail outlets and *Kadiwa* on wheels were established. The two projects aim to enhance market and income opportunities for farmers and partnerships with cooperatives and LGUs and improve consumers' access to safe, nutritious, and affordable agriculture and fisheries products. In 2020, with the participation of six LGUs and 47 cooperatives and associations, 108,000 households were served, with a total sale of PHP79.86 million. The transport of prime agricultural commodities from the region to Metro Manila and other parts of Luzon was facilitated by the DA. Also, in 2020, a total of PHP1.77 billion was allocated for *Ahon sa Lahat Pagkaing Sapat* (ALPAS) *Kontra* COVID-19 to ensure food accessibility and availability at stable prices. Women's participation was evident in the training conducted by DA Region 5 for various programs. Seeds were distributed to women farmers. Likewise, native chicken, native goat, sheep, and swine were also dispersed.

The Rice Resiliency Project is one of the components of ALPAS *Kontra* COVID-19, also known as the "Plant, Plant, Plant" program, which aims to increase local

rice production to combat global trade uncertainties and promote food security amid the pandemic. Rice seeds and fertilizers were distributed for free to rice farmers starting the wet cropping season of 2020. Inbred and hybrid rice seeds with fertilizers were distributed to rainfed and irrigated areas on top of the existing Rice Competitiveness Enhancement Fund (RCEF) and the support to inbred and hybrid farmers under the National Rice Program¹⁴. More seeds and planting materials were also made available for the farmers under the agriculture programs of the DA (*See Chapter 7*). Based on the reported rice self-sufficiency ratio (SSR), only Camarines Sur, the region's rice granary, attained and maintained a rice sufficiency level¹⁵.

Various healthcare programs were implemented which contributed to enhanced health status. On assessing the provision of proper nutrition, the nutrition targets were achieved based on the results of Operation *Timbang* (OPT). The prevalence of wasting and stunting among children under five years was reduced. Nutrition services for all life stages included promotive, preventive, curative, and rehabilitative health care to ensure a healthy pregnancy, infancy, childhood and adolescence, adulthood, and aging. The Women's Health and Safe Motherhood Program, the Newborn Screening Program, and the First 1,000 Days (F1K) Program were implemented to ensure a healthy pregnancy and infancy.

The School-Based Feeding Program (SBFP) of the DepEd provided free meals in all public elementary schools to learners classified as wasted or severely

14 Department of Agriculture Region 5 Annual Report 2020 available at <https://bicol.da.gov.ph/wp-content/uploads/2021/11/DA-Bicol-Annual-Report-2020.pdf>

15 The SSR shows the magnitude of production in relation to domestic utilization or the extent to which the region's supply of commodity is derived from its own domestic production. A ratio of less than 100 reflects inadequacy of food production to cope with the demand of the population, a 100 ratio indicates that food production capacity is just enough to support the food needs of the population, and over 100 ratio means domestic production is more than enough to support the domestic requirements.

wasted, which aims to address short-term hunger and undernutrition among public school children. In 2021, about 31,789 malnourished children received supplementary feeding in daycare centers. Of these children, 75 percent, or 23,964, had improved nutritional status, i.e., 6,797 severely underweight children improved to underweight, and 17,244 underweight children improved to normal nutritional status. The prevalence of wasting and stunting among children below five years was reduced from 6.1 and 20.8 in 2017 to 2.6 and 11.7 in 2022, respectively. While the prevalence of overweight among children under five years old decreased from 4.5 in 2017 to 3.08 in 2022.

The implementation of F1K days of life from conception to ensure optimum nutrition and the physical and mental development of the child was strengthened. At the same time, the complementarity of nutrition-specific and nutrition-sensitive programs that address the determinants of fetal and child nutrition and development was ensured. The NNC intensified the mobilization of LGUs, involving the community of non-governmental organizations (NGOs) and development partners' resources, to ensure that the Philippine Plan of Action for Nutrition (PPAN) 2017-2022 delivered the planned outcomes and reached the GIDAs.

Fund support was provided to the BRTTH for the Philippine Integrated Management for Acute Malnutrition to rehabilitate the health of severely malnourished patients. Under the Health Emergency Management Program, capacity-building activities were conducted among healthcare providers and community rescuers to ensure quick response to emergencies.

Challenges

Various challenges in the production sector distress food security. For instance,

deforestation and forest degradation affected food and water security, while increasing temperature exacerbated food and water scarcity.

Increasing resiliency of agriculture, fisheries, and business enterprises.

Critical infrastructures such as production, post-production, processing, and irrigation facilities suffered partial to total damage that affected the region's productive capacity. The negative impacts of disasters on agriculture have threatened food security in the affected areas. Disruptions in agriculture, particularly the major commodities, affected the supply chain and increased production costs, resulting in high prices. The vulnerability of the production sector to multidimensional shocks such as tropical cyclones, the pandemic, and armed conflict also contributed to an unstable food supply.

The irrigation systems are vital for sustainable agricultural development that leads to food security, but the potential of irrigation development in the region has yet to be fully harnessed. (*See Chapter 13*)

Improving digital technology to access safe, affordable, and nutritious food.

This revealed the issues of the digital divide, or inequitable internet access, information, and communications technology facilities (*See Chapter 13*), and the limited use and knowledge of digital technologies. There is a need to improve the market participation of sellers and consumers and maximize the region's online market platforms.

Providing infrastructure and logistics support.

Although the support of LGUs for the existing health and nutrition programs was evident, additional budget to implement such programs, particularly for procuring commodities and other logistical support, is needed. The lack of

efficient transport and logistics systems contributed to the high price of goods and services and low accessibility to nutritious and healthy foods. If these infrastructure and logistics issues are addressed, prices of goods may likely be more stable, and people, especially vulnerable groups and

minimum wage earners, may allocate their resources to other concerns and interests such as health, education, and recreation. They may also afford to consume nutritious and healthier foods that are likely more expensive than the nutrient-poor food options.

Targets

This chapter aims to reduce the food inflation rate, lower the subsistence incidence among the population, and the

prevalence of malnutrition among children manifested by wasting and stunting.

Core Indicators

Table 5.1.1 presents the indicators and targets to ensure food security and proper nutrition.

Table 5.1.1 Core Indicators Ensure Food Security and Proper Nutrition

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Food inflation rate (%) kept stable	5.7 (2022)	2.5-4.5	2-4	2-4	2-4	2-4	2-4	Inflation Report	PSA
Subsistence incidence among population (%) reduced	5.9 (2021)	4.5-5.5	N/A	3.5-4.5	N/A	3.0-4.0	2.5-3.5	Poverty Statistics Report	PSA
Severe food insecurity	2 (2021)	0						National Nutrition Survey (NNS)	NNC
Moderate to severe food insecurity	33.4 (2021)	31.7	30.1	28.5	27.1	25.7	24.4	NNS	NNC
Prevalence of stunting (%) among children under 5 years of age decreased	11.7 (2022)	10.7	9.7	9.7	9.7	9.7	9.7	Annual E OPT + Report	NNC
Prevalence of malnutrition (%) for children under 5 years of age (wasting) decreased	2.6 (2022)	2.4						Annual E OPT + Report	NNC with provinces and cities
Prevalence for overweight among children under 5 years of age decreased	3.1 (2022)	2.9	2.6	2.4	<2.5	<2.5	<2.5	Annual E OPT + Report	NNC with provinces and cities

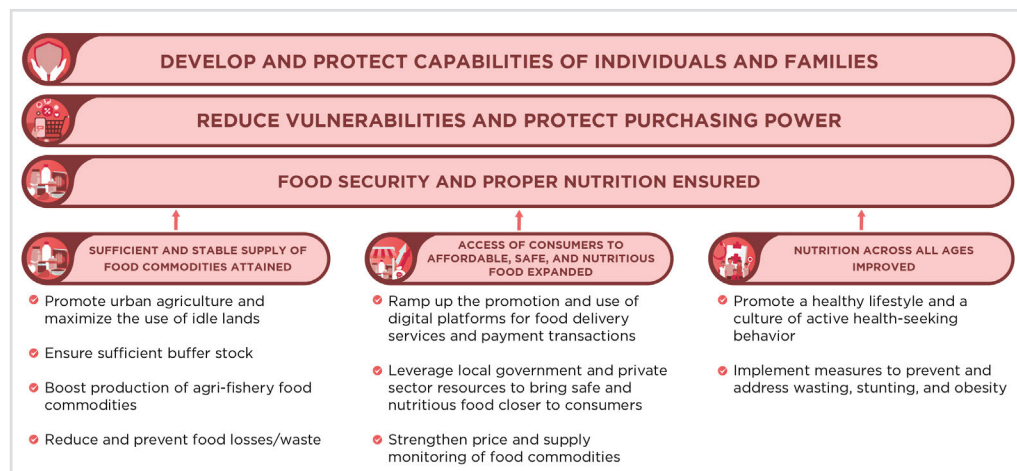
Strategy Framework

To ensure food security and proper nutrition for Bicolanos, various outcomes should be attained, such as: (a) a sufficient and stable supply of food commodities; (b) expanded access for consumers to

affordable, safe, and nutritious food; and (c) improved nutrition across all ages. This can be done through continuous collaboration among the government, private sector, academe, and other

stakeholders. By achieving these, food and the excellent health and well-being of insecurity and hunger will be reduced, Bicolanos will be improved.

Figure 5.1.1 Strategy Framework to Ensure Food Security and Proper Nutrition



Strategies

Outcome 1: Sufficient and stable supply of food commodities attained

Promote urban agriculture and maximize the use of idle lands.

The Bicol Region represents about six percent of the country's land area, wherein the majority of around 10,347 sq. km. is utilized for agriculture, of which 640 has were converted for various land uses and considered one of the top issues in the region. A significant portion of the total land area is idle and can potentially be used for food production.

To enhance food security, the region will intensify the promotion of urban agriculture in households, schools, and communities. The LGUs will lead the promotion at the household level to produce food in their respective backyards or communities through community or backyard farming activities. Initiatives to maximize the use of idle lands for food production will also be explored.

Ensure sufficient buffer stock.

Buffer stocking of rice and other food commodities that will last for months will

be conducted at various levels to ensure that food will be made available to the public, especially in times of distress or disaster. The Buffer Stocking Program will be strengthened by regional agencies such as the National Food Authority (NFA) and the DSWD in collaboration with LGUs and the private sector. Necessary policies and mechanisms will be put in place to facilitate the distribution of buffer stocks and avoid issues in the case of surplus. The capacities of concerned agencies and LGUs will be strengthened to ensure efficient administration and supply chain management.

Boost production of agri-fishery food commodities.

Considering the region's potential as a supplier of various agri-fishery food products, the region will implement various interventions to boost its production, thus increasing the region's food supply. These include the provision of inputs such as planting materials/ fishery stocks to farmers and fisherfolks, upgrading of machinery, and capacity-

building activities. Efforts to modernize the agri-fishery sector will also be given attention (*See Chapter 7*).

Reduce and prevent food losses/waste. Food waste not only entails an amount of food that contains nutrients wasted but also has implications on the environment, such as air pollution, soil and water contamination, and climate change, which can eventually affect the health and well-being of people. Food waste will be appropriately managed by providing the communities with the necessary facilities and equipment

operated by capable organizations and individuals. Proper waste management will initially be done at the household level through waste segregation and composting, while the local government will conduct intensive information campaigns to educate the community on the practical benefits of reducing food waste. Additionally, the upcycling¹⁶ process will be explored and promoted. The private sector and the academe can be tapped to promote upcycling of food waste and enhance public awareness around food waste's generation of revenue and nutritional value.

Outcome 2: Access of consumers to affordable, safe, and nutritious food expanded

Ramp up the promotion and use of digital platforms for food delivery services and payment transactions. Online food markets and delivery services in the region will be supported and expanded. These services will be strengthened by accelerating digital connectivity in all areas, including GIDAs, which comprise around 489 barangays in the region. Local businesses participating in the digital market will be provided with technical support to enhance entrepreneurial skills and adapt to the demand for digital services. The participation of local stores offering healthy food products will be encouraged to promote market competition and increase the accessibility and affordability of nutritious foods.

Leverage local government and private sector resources to bring safe and nutritious food closer to consumers. Investments in cold storage facilities, transport, and logistics systems will increase. Because of the

region's vulnerability to calamities that impede the transport and delivery of food, the establishment of cold storage facilities is essential to ensure a sufficient and stable supply of food. These facilities will be strategically located to ensure that the islands will have access despite bad weather conditions. This can be done through partnerships with the private sector. The LGUs will be encouraged to develop strategies to store and utilize local farmers' produce as a food supply for the affected population during emergencies instead of instant/ processed unhealthy foods.

The *Kadiwa* outlets will be expanded, or a local market system will be established within clustered areas to provide a trading venue for farmers and consumers. The LGUs, in partnership with appropriate government agencies, will identify their prime commodities that can potentially be developed into value-added products (*See Chapter 8*). This will save farmers from potential losses and help improve

¹⁶ Upcycling food means to reduce food waste and transform it into nutritious and high-quality products, using nutrients that would otherwise be lost in the food supply chain. <https://www.myblueproject.com/upcycled-food-the-new-trend-to-reduce-food-waste/#:~:text=Upcycling%20food%20is%20a%20means,them%20into%20a%20new%20product>

their skills and income-earning abilities.

Strengthen price and supply monitoring of food commodities. Price and supply monitoring of all food commodities will be regularly conducted by concerned agencies such as the DA and DTI in partnership with the LGUs and the private

sector to ensure that food supplies in the market are sold at reasonable prices under existing policies such as the Price Act. Initiatives to strengthen and reactivate the Local Price Coordinating Council at the provincial and municipal level will be pursued to include capacity-building activities and the implementation of Joint Memo Circular (JMC) No. 03, s. 2020.

Outcome 3: Nutrition across all ages improved

Promote a healthy lifestyle and a culture of active health-seeking behavior. Promoting a healthy lifestyle requires a whole-of-society approach. Intensive advocacy campaigns will be conducted across sectors and population segments (See Chapter 4). Schools, offices, LGUs, and private organizations will conduct activities promoting healthy practices and behaviors, and work-life balance. They will prioritize building communities that provide an active and safe environment for all, regardless of race, gender, body size, weight, and shape. The LGUs and communities with best practices in promoting healthy lifestyles and a culture of active health-seeking will be given incentives as role models to others. Locally grown/ available vegetables, fruits, and root crops will be introduced as alternatives to processed, nutrient-poor food alternatives. The development and adoption of technologies that increase the nutritional content and prolong the shelf-life of food products will be supported by implementing initiatives related to research, innovation, and capacity development.

Implement measures to prevent and address wasting, stunting, and obesity. The delivery of services

critical to the F1K days of life will be ensured, especially in rural areas and island provinces. Promoting healthy lifestyles and eating environments will help manage and prevent malnutrition and obesity. Key nutrition behaviors that reduce stunting in targeted municipalities will also be improved. The RA 11148 will be fully implemented, and investments and budget allocation for evidence-based nutrition, especially for the F1K days, will be increased.

The Philippine Multi-Sectoral Nutrition Project (PMNP) or the *Kasapatan at Ugnayan ng Mamamayan sa Akmang Pagkain at Nutrisyon* will be implemented. Four provinces in the Bicol Region, namely: Camarines Sur, Catanduanes, Masbate, and Sorsogon, are among the 26 provinces to implement the PMNP, designed to address the perennial problem of undernutrition, child stunting, and wasting. In the implementation of the PMNP, the LGUs will be capacitated to effectively integrate nutrition into their comprehensive development plans and local development investment plans as part of the LGU mobilization strategy of the regional plan of action for nutrition.

Box Article 5.1

Bicol RDC back multi-sectoral nutrition project toward ending maternal and child malnutrition in Bicol

The PMNP or the *Kasapatan at Ugnayan ng Mamamayan sa Akmang Pagkain at Nutrisyon* is a nationwide project that will adopt a multi-sectoral approach to deliver a package of nutrition-specific and nutrition-sensitive interventions in different LGUs. Four provinces in the Bicol Region are among the 26 provinces to implement the PMNP designed to address the perennial problem of undernutrition, child stunting, and wasting in the Philippines.

The Bicol RDC endorsed the PMNP, through RDC Resolution No. 2-18, Series of 2021, and reaffirmed its support for the implementation of the project through RDC Resolution No. 1-13, Series of 2022. Further, the RDC approved the creation of the PMNP technical working group which is tasked to provide technical assistance in the formulation and implementation of the Regional PMNP Work Plan and Milestones 2022 to 2025.

The PMNP aims to improve health and nutrition outcomes by prioritizing interventions that are linked to the reduction of maternal and child undernutrition. The intervention will focus on strengthening the delivery of maternal and child health and services through the primary healthcare system and leverage the existing community structures and to take ownership of and support the delivery of nutrition-related activities.

The target beneficiaries are pregnant and lactating mothers, children 6 to 23 months old, and children under five years old in 26 provinces nationwide. For Bicol, the target beneficiaries come from Camarines Sur, Catanduanes, Masbate, and Sorsogon which were selected based on the (1) prevalence of childhood stunting; (2) poverty incidence; and (3) experience in the implementation of KALAHY-CIDSS. The expected outcomes of the projects are (1) strengthened delivery of nutrition and primary health services; (2) community-based nutrition service delivery and multi-sectoral nutrition convergence; and (3) institutional strengthening, monitoring, and evaluation.

The project's contribution to the country's overall nutrition goal will be monitored through indicators that focus on the utilization of key services and practices and behaviors known to impact the nutritional status of the target beneficiaries.

Credits: NEDA and NNC

Legislative Agenda

Table 5.1.2 presents the priority legislative agenda to ensure food security and proper nutrition.

Table 5.1.2 Legislative Agenda to Ensure Food Security and Proper Nutrition

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Food Waste Management Policy	<p>The policy seeks to address the country's growing food waste problem by adopting and institutionalizing mechanisms that will promote, facilitate, and ensure food waste reduction across different sectors of society (e.g., households, food establishments, food distributors, and supermarkets).</p> <p>If institutionalized, this will provide an integrated system of waste management across the LGUs in the region and improve the interventions for food waste reduction.</p>	NNC, DILG, and LGUs
Creation of LGU nutrition offices	<p>A Nutrition Office with a competent staff complement will ensure that LGUs have nutrition focal persons on the ground. It will contribute to the effective and efficient implementation of nutrition programs and targeted beneficiaries, especially vulnerable and high-risk groups.</p> <p>Knowledge on proper nutrition may not be widely disseminated and advocated in rural and remote areas; hence the initiative of the national government to improve nutrition governance, including the establishment of LGU nutrition offices and enhancement of the functionality of Local Nutrition Committees and capacity of local nutrition workers will advance health and nutrition services in the local areas.</p>	DILG, LGUs, DOH, NNC

Subchapter 5.2 Strengthen Social Protection

Assessment and Challenges

Assessment

Various social protection programs, mostly nationally funded, are being implemented by different government agencies targeting vulnerable groups. The *Pantawid Pamilyang Pilipino* Program (4Ps) – the flagship program of the government for poverty alleviation, as institutionalized through RA 11310 or the 4Ps Act, has been successfully implemented and continues to benefit households through its conditional cash transfer scheme. In 2022, out of the 378,253 target households for the year, 366,789 households benefitted from

Regular Cash Conditional Cash Transfer (RCCT) amounting to PHP8.77 billion. For the Modified Conditional Cash Transfer (MCCT), 4,916 households benefitted, amounting to PHP78.34 million. The MCCT is a sub-component of the 4Ps that uses a modified approach in terms of targeting, conditionalities, program interventions, and mode of implementation. A total of 4,863 households were served in 2022, with a corresponding disbursed amount of PHP90 million under the Sustainable Livelihood Program (SLP). The SLP is a capability-building program for poor, vulnerable, and marginalized households

and communities to improve their socio-economic conditions.

The UHC Act states that all Filipinos will be provided with health insurance. As of November 2021, 81 percent of the population in the region was covered under the PhilHealth. This is higher than the 78 percent target in 2020 but falls short of the end-of-plan target of 100 percent. About 82 percent of the total number of patients admitted to healthcare institutions availed themselves of the National Health Insurance Program (NHIP). There is no available data on out-of-pocket expenditure over the total health expenditure of its members, but 36.8 percent of patients in government hospitals and 36.7 percent in private hospitals had no co-payment for basic accommodation in health care institutions. The PhilHealth *Konsulta* Package was launched in 2021, and a total of 97 healthcare institutions were accredited as of January 2023. The program aims to hasten member registration toward a more comprehensive approach to delivering primary health care.

In 2021, the social pension covered 100 percent of poor senior citizens. In the province of Catanduanes, 58.2 percent of senior citizens availed of Assistance to Individuals in crises.

The Protective Social Welfare Program of the DSWD catered to: 39 children in conflict with the law (CICL) serving in the Regional Rehabilitation Center for the Youth; 180 women in especially difficult circumstances; and 84 children in need of special protection, e.g., abandoned, physically or sexually abused, serving in centers and residential care facilities. Sixty trafficked persons (39 females and 21 males) were provided with social welfare services. Emergency shelter assistance was provided to 42,498 beneficiaries affected by calamities in 2021. All families affected by

the typhoons that visited the region were provided with disaster relief assistance.

As of December 2021, there were 208,864 Overseas Filipino Workers (OFWs) registered with the Overseas Workers Welfare Administration (OWWA), who were assisted by 117 OFW help desks that were established in partnership with the LGUs. Information caravans were conducted to increase the OWWA membership of OFWs. Moreover, the Social Welfare Attaché Act (RA 11299), the Handbook for OFWs Act (RA 11227), and the Social Security Act of 2018 (RA 11199) were enacted, which aim to enhance the social protection (SP) afforded to overseas Filipinos. The number of profiled child laborers referred for services increased from 1,070 in 2018 to 22,703 in 2021. Further, 507 families with child laborers received livelihood assistance.

As of October 2022, 170 barangays, 5 municipalities, and 1 province have Indigenous Peoples Mandatory Representatives (IPMRs) in the legislative councils. Two IP groups' Indigenous political structures, such as the *Agta* and *Manide*, were documented. The documentation aimed to protect and promote the inherent right of IPs to self-governance and self-determination through their organizational and cultural leadership systems. A Cultural Heritage Center for the IPs in Bicol named "*Ladawan*" was established at the CBSUA in Camarines Sur. The IPs were also provided legal, livelihood, educational, and medical assistance, including infrastructure projects such as water supply systems and evacuation centers. Two Ancestral Domain Sustainable and Protection Plans (ADSDPPs) for the *Manide* in Capalonga and Jose Panganiban in Camarines Norte were completed in 2021. The ADSDPP is a culture-sensitive plan containing policies, strategies, programs, and projects toward sustainable management and development

of ancestral domains.

Challenges

The critical challenges affecting the sector are as follows:

Ensuring the availability of updated social registry data for speedy implementation of the social protection program. On the Philippine Identification System (PhilSys), 3,487,663 Bicolanos were registered as of the fourth quarter of 2022. Financial inclusion through a partnership with the Land Bank of the Philippines (LBP) through co-location strategies to cover unbanked registrants to PhilSys, including those in GIDAs, was initiated. Some of the issues in the registration process include the inability of registrants to travel to registration centers due to the travel restrictions, the absence of documents to support their identity, and economic reasons. The roll-out of PhilSys needs to be fast-tracked to facilitate the provision of social welfare and protection services to the poor and vulnerable groups.

During the COVID-19 pandemic, social protection programs helped mitigate the impact of the crisis and keep families out of poverty. The entities that implemented the government's major programs are DILG, DSWD, DOLE, OWWA, and the LGUs. However, the COVID-19 crisis highlighted inefficiencies in the delivery of social protection programs. Among others, the delivery of assistance was delayed due to data limitations that prevented efficient targeting and provision of assistance; logistical problems that caused delays in certain localities, especially GIDAs; stringent procedures of local treasurers; and the tedious process of availing of benefits such as Unemployment Insurance. Implementing SP programs and projects for the poor, children, indigent senior citizens, PWDs, IPs, and OFWs was

also a challenge in the region. Moreover, different levels of interpretation by LGUs of the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF-EID) policies and guidelines resulted in the delayed delivery of services or payout of the SP and other forms of cash assistance. Considering the new normal under a prevailing pandemic situation, the adoption of cluster payouts and online systems from application for assistance to receipt of assistance will be considered.

The SP programs still need to be more cohesive and integrated. Some interventions are overlapping and duplicative thus, need to rationalize in order to increase efficiency and effectiveness. Eliminating risks, particularly for vulnerable groups, modernizing the SP programs, ensuring complete registration of Bicolanos in the PhilSys, and providing funds for SP programs are among the remaining major challenges. Additionally, the lack of a comprehensive international and internal migration database that could hasten the needs assessment and provision of social protection services to migrant workers is also a concern. No data were generated on the number of families covered by social insurance except for PhilHealth coverage. Thus, it is difficult to determine the percentage of Bicolanos vulnerable to crises and other risks.

Maximizing the use of digital payment systems. The release of government grants and subsidies was done on a cash basis, which caused delays and exposed the beneficiaries to social and emotional risks, especially during the COVID-19 pandemic, when a significant percentage of the regional population relies on most SP programs. One potential remedy for this problem is the use of other digital platforms. However, among the major hindrances to digitalizing the payment system is the need for bank accounts of the

beneficiaries. Data from the *Bangko Sentral ng Pilipinas* (BSP) showed that only about 56 percent of Bicolanos (15 years old and above) have an account at a bank or other financial institution or with a mobile-money service provider. Despite the rising demand and patronage on online payment platforms, such as GCash and Maya, releasing the benefits of government SP programs remains on a cash basis, with minimal or no improvement.

Increasing disaster resilience. Considering the region's exposure to various hazards combined with its vulnerabilities, particularly in the socioeconomic aspect, increasing Bicolanos resilience remains a major

challenge. In 2020, the wrath of TCs QRU caused widespread destruction among Bicolanos, with estimated cost damages and losses amounting to PHP80.40 billion (at 2020 price levels). The devastation caused by the TCs wreaked havoc on the lives of the Bicolanos and the regional economy. Despite the efforts to mitigate the impacts of the pandemic and the successive TCs, more needs to be done to reverse the scarring effects, especially for the poor and vulnerable groups. Among them are the continuous improvement of the early warning systems, disaster preparedness, and improvement in the nutritional content of food assistance packages during disasters.

Targets

This chapter aims to increase the number of families covered by social insurance, expand the coverage of SP programs

for vulnerable sectors, and improve the resilience of families to risks through social insurance.

Core Indicators

Table 5.2.1 presents the indicators and targets to strengthen social protection.

Table 5.2.1 Core Indicators to Strengthen Social Protection

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of out-of-pocket expenditure over total health expenditure [%]	50 (2016)	50	50	45	40	40	40	National Health Accounts	PHIC
Percentage of families covered by social insurance	83.8 (2020)	100						Annual Poverty Indicators Survey (APIS)	GSIS, SSS, PhilHealth, PCIC
National Health Insurance Program availment rate	80.52 (2017)	Increasing					90	Admin Data	SDC, HDPRC, PhilHealth
Number of beneficiaries served by emergency employment/cash-for-work program	37,645 (2021)	Increasing						DSWD Report	DSWD

Strategy Framework

To strengthen social protection, the following sector outcomes will be achieved: (a) a universal, modern, and integrated SP system; (b) mitigate individual and life cycle risks; (c) mitigate natural, health, climate, and other human-induced hazards; and (d) manage economic risks and political risks.

Figure 5.2.1 Strategy Framework to Strengthen Social Protection



Strategies

Outcome 1: A universal, modern, and integrated SP achieved

Establish a standard menu of rationalized programs for the SP floor guarantees. Given the possibility of overlap, duplication, gaps, and limited fiscal resources for SP programs, it is important to review the existing programs to determine the need to merge, stop, or improve for the efficient use of resources.

The roll-out of the Philippine Identification System will be fast-tracked to improve people's access to financial services and assistance, thereby reducing their vulnerability. The UHC Act will be fully implemented to ensure protection against financial difficulties arising from medical expenses. The full implementation of the UHC will

guarantee access for every Filipino to a continuum of essential and quality health services while ensuring protection against financial hardship. Among the benefits, once fully implemented, are the expansion of subsidized primary care drugs, unlimited conditions covered by primary care benefits, and a fixed fee co-payment. To guarantee continuous access to social services and achieve universal and transformative social protection, the region will support the institutionalization of SP floor, a set of basic social security guarantees that secure protection aimed at preventing or alleviating poverty, vulnerability, and social exclusion.

As provided in the Philippine Development Plan (PDP) 2023-2028, the

proposed package of programs for each SP floor guarantee will improve coordination among agencies and maximize impact for beneficiaries. The programs selected in the package shall be strengthened at each stage, from targeting to enrollment, to delivery. Innovative and shock-responsive programs will also be encouraged and mainstreamed. The evaluation of SP programs will also be institutionalized.

Ensure timely and responsive implementation and financing of SP programs. Some segments of the population or vulnerable groups depend on the SP programs of the government. Emergencies reveal their vulnerabilities, and the delay in assistance and inadequate funds leave them distressed. To alleviate difficulties, the government will establish and digitalize the database to quickly target and monitor SP program beneficiaries.

The government will coordinate with the private sector to complement its SP programs with packages that cannot be covered under the fiscal allocation. Insurance packages are effective forms of risk transfer during emergencies. This will also aid the public sector in reducing its burdens by creating a responsive approach to mitigating the impact of disasters. The region will also support efforts to rationalize the government's SP programs and the provision of funds.

Social registries of the agencies concerned will be updated and harmonized with the national identification (ID) system to avoid data duplication and ensure efficient targeting, funding, and delivery of programs. As necessary, only one database will be maintained, and the lead

agency will be identified. The information in the national ID will be dynamic. For instance, the residence change will reflect the information contained in the ID. LGUs will be encouraged to establish a database for their residents and provide them with residence cards that will be used as proof of residency to avail themselves of nationally-funded or locally-funded provided by the LGUs or agencies. This will ensure the timely delivery of services and record discrepancies in the delivery of services.

Strengthen services and facilities for digital payments of cash transfers. The emergence of digital payment platforms is an advantage to implementing the digitalization of cash transfers and assistance. In the absence of bank accounts, the concerned agencies and LGUs will utilize these platforms for the efficient and timely delivery of social services, including regular and special programs. Mechanisms in using digital payments for pay-outs will be put in place to slowly transition from the previous practice of cash-basis release of pay-outs.

Integrate the nutritional needs of vulnerable groups in the SP program. The government will ensure that food assistance during emergencies is nutrient-dense, healthy and appropriately provided according to their needs. The agencies and LGUs will promote and patronize the use of locally-produced products by farmers to ensure that their harvests are not wasted, provide them with income, and maintain healthy conditions for the affected population despite the crisis.

Outcome 2: Individual and Life Cycle Risks Mitigated

Strengthen the implementation of laws protecting vulnerable groups. The rights of the vulnerable

sectors will be promoted and protected. These include PWDs, women, IPs, senior citizens, and children. Several initiatives

that were implemented promoting gender equality and women empowerment will be sustained and expanded. Children will be protected against bullying, child abuse, and pornography, and their physical, moral, intellectual, and social well-being will be promoted. Gender and rights-based services and IP rights protection programs will be implemented to protect and promote the rights of the IP communities.

Ensure SP access in GIDAs.

Families in GIDAs will be given priority in providing social services and SP programs, including PhilSys registration. This will be done by strengthening co-location strategies in partnership with LGUs. Infrastructure, livelihood, education, and health programs will also be strategically implemented to reach the GIDAs, including those in conflict-affected areas that are considered priority areas under the Support to Barangay Development Program (SBDP).

Ensure safe and orderly overseas migration.

The OWWA will enhance advocacies to encourage membership of OFWs to ensure they are documented and provided with timely and appropriate assistance during emergencies. Programs for the children left behind by OFWs will be provided. Financial management orientation will be offered to OFWs to ensure the sustainability of financial resources and provide SP programs, including educational plans and retirement packages.

The LGUs will be encouraged to pass local ordinances directing the creation of functional local committees on migration and development. This local legislation will support the strategy of ensuring safe and orderly overseas migration. It will provide a policy framework at the local level to help facilitate the adoption of a standard format in profiling overseas Filipinos and their families, organization of overseas Filipinos at the barangay or municipal level, creation of migrants' resource centers in key LGUs, and strengthening of public employment service offices.

Implement a holistic approach to eradicate child labor.

In the region, child labor exists in the mining sector. Based on the result of the Retooled Community Support Program (RCSP) activities conducted in several municipalities in the province of Camarines Sur, Camarines Norte, and Sorsogon in 2019, the factors that contribute to the participation of the children include social issues such as poverty, education, family problem, among others. To address the issues related to child labor, various interventions will be provided such as poverty alleviation and livelihood programs while adopting a whole-of-society approach in close coordination with the families, community members, concerned agencies, LGUs, and private organizations. Children that need psychosocial and emotional guidance will be given appropriate interventions.

Outcome 3: Natural, health, climate, and other human-induced hazards mitigated

Ensure implementation of mental health and psychosocial services during a disaster and crisis. Given the numerous calamities affecting the region and health crises, such as the COVID-19 pandemic, the

implementation of mental health and psychosocial services will be ensured. Teleconsultation and telemedicine will be encouraged to ensure the accessibility of health support services to the affected population (*See Chapter 4*).

Develop and implement anticipatory delivery mechanisms for various types of disasters and emergencies.

Through multiple channels, the government will intensify the implementation of anticipatory delivery mechanisms, such as an early warning system. Capacity building and disaster preparedness interventions will be implemented locally to ensure that

affected populations are prepared and capacitated to avoid panic and casualties. All LGUs will implement preemptive evacuation in the region. Permanent and resilient evacuation centers will be constructed and equipped with basic facilities to make the evacuees, especially children, elderly, women, and PWD, comfortable and safe (*See Chapter 16*).

Outcome 4: Economic and political risks managed

Rationalize existing unemployment insurance schemes and livelihood and public works/cash-for-work programs.

Programs intended for unemployed or displaced workers will be reviewed and rationalized. The programs not directly beneficial for unemployed or displaced workers will be revisited, while new interventions will be developed, as needed. Among the emergency cash and livelihood assistance is the Tulong Panghanapbuhay sa Disadvantaged/Displaced Workers (TUPAD). The program and other related programs will be evaluated to enhance the level of work and skills of the beneficiaries that have availed of the program despite its temporary nature of employment (*See Chapter 6*).

Expand coverage of free agricultural insurance for qualified farmers and fisherfolk.

Given the region's location and vulnerability to natural hazards that usually affect the agriculture sector, providing agricultural insurance for farmers is very important. The government will expand free insurance coverage through the Philippine Crop Insurance Corporation (PCIC), especially for small farmers. The insurance will be provided on top of other subsidies and assistance given by other government agencies.

Promote financial literacy and social insurance products for better awareness and use of financial instruments.

Considering the high percentage of Bicolanos with no bank accounts hinders them from enjoying the benefit of fast, convenient, and secure receipt of financial assistance. The lack of opportunities to be provided with appropriate information on financial literacy limits their options for protecting themselves from risks and adverse impacts of emergencies. Thus, to address this, intensive promotion and advocacy activities on financial literacy and the importance of SP will be conducted to mitigate the risks during emergencies holistically. When families have sufficient resources and savings, they can avail themselves of social insurance products; hence risks are transferred, and burdens reduced. Insurance promotion will not be made limited to life and health insurance but also other types of risk transfer options such as crop and property insurance. Non-profit and microfinance NGOs that offer financial and non-financial services with training and formation to micro-entrepreneurial families (e.g., Simbag sa Pagasenso Inc. or SEDP) will be tapped to partner with government programs and advocacies to improve the quality of life and economic well-being of the Bicolanos.

Legislative Agenda

Table 5.2.2 presents the priority legislative agenda that will complement and support the strategies to strengthen social protection.

Table 5.2.2 Legislative Agenda to Strengthen Social Protection

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Expansion of Unemployment Insurance	<p>This will expand the coverage and benefits of unemployment insurance under the SSS and GSIS.</p> <p>This will serve as a security measure to provide a buffer and avoid disruption in family income while looking for a new job. It can benefit the unemployed population in the region affected by crises such as the COVID-19 pandemic.</p>	Social Security System (SSS) and Government Service Insurance System (GSIS)
Evacuation Center Act	<p>This will establish permanent and disaster-resilient evacuation centers with the necessary facilities to avoid using classrooms during calamities.</p> <p>The establishment of permanent evacuation centers is one of the critical programs in the region, given the increasing frequency and strength of tropical cyclones and the existence of other natural hazards such as volcanic eruption.</p>	DPWH and LGUs

06

Increase Income-Earning Ability



Increase Income-earning Ability

One strategy for attaining the medium-term goal of economic and social transformation for a prosperous, inclusive, and resilient society is to develop and protect the capabilities of individuals and families. Over the coming years, the Bicol Region will be a sustainable and resilient region that can handle pandemics, globalization, and shifting technologies.

Taking the gains from the pre-pandemic phase and the technological advancements in the era of COVID-19, economic growth will be intensified through the generation of productive employment opportunities to improve the well-being of individuals and families. Providing decent jobs will ensure income and empowerment for the Bicolanos, especially for the poor and vulnerable groups. Available and accessible employment will be promoted by upskilling the Bicolano workforce. Skills enhancement and development will be prioritized to equip and enable Bicolanos to take full advantage of their potential, hobbies, and capabilities in seeking quality jobs and escalating employment ventures.

Assessment and Challenges

Assessment

Employment opportunities were continuously provided. The Special Program for Employment of Students (SPES) of the DOLE helped ensure that beneficiaries could pursue their education. It provided income-earning opportunities to assist the beneficiaries financially in supplementing school-related expenses and supporting their family's necessities. From 2017-2022, there were 29,188 underprivileged and deserving Bicolano youth who were enrolled under the SPES. Despite limited funding from the DOLE, more beneficiaries were assisted by allowing LGUs to fund and implement the program. The SPES is DOLE's youth employment-bridging program, which aims to provide temporary employment to poor but deserving students, out-of-school youth (OSY), and dependents of

displaced or would-be displaced workers, during summer and/or Christmas vacations or any time of the year. One challenge encountered was retaining the SPES beneficiaries and resolving payment delays.

From 2019-2022, there were 400 OSY who were provided with life skills and technical training through the JobStart Program, which aimed to address the high rate of unemployment among the youth and fresh graduates through partnership and collaboration among DOLE, City Public Employment Service Office (PESO), and private business firms. The program equipped the youth with career readiness by improving their employability through full-cycle employment facilitation, which consists of training and paid internships, and decreasing their job-hunting duration.

The Government Internship Program (GIP) provided 19,166 interns to work in public offices. As a result of the internship, 34 GIP beneficiaries were absorbed by the office. The GIP aims to provide opportunities and engage young workers to serve the general public in government agencies/entities, projects, and programs. It provides young workers, particularly the poor and indigent, the opportunity to demonstrate their talents and skills in public service with the ultimate objective of attracting the best and the brightest who want to pursue a career in government service.

Initiatives to create jobs were undertaken. The *Trabaho Negosyo Kabuhayan* (TNK), an initiative between the DOLE and the DTI, brought government services and jobs closer to the people through the conduct of job and livelihood fairs, lectures, seminars, and the promotion of entrepreneurship. This initiative catered to all types of entrepreneurs and job seekers, including returning OFWs, K-12 graduates, PWDs, and senior citizens. A total of 15 TNK Jobs and Business Fairs were conducted (face-to-face and online) from 2017-2022.

The regional minimum wage was increased as an immediate relief to the increase of prices of basic goods and services in the region. Pursuant to a wage order issued by the Regional Tripartite Wages and Productivity Board (RTWPB) Region 5 in 2020, the prevailing daily minimum wage rate of the region was adjusted to PHP335.00, an increase of PHP25.00 from the previous daily minimum wage of PHP310.00, for all private establishments in all sectors, regardless of the number of workers employed, their position, designation, status of employment, and method by which they are paid. Due to the rising prices of essential items and commodities and the escalating living costs, RTWPB 5

issued Wage Order No. RBV-20 in 2022, bringing the new minimum wage rate in the Bicol Region to PHP365.00 for all sectors. The adjustment of the minimum wage rate was a measure to increase the workers' income-earning ability, hence providing immediate relief to the high cost of living due to high prices of basic goods and services.

Interventions to aid the informal sector workers in recovering from the loss of income were provided. A total of 397,253 displaced/disadvantaged workers were provided with temporary employment to recover from the effects of typhoons that visited the region and the loss of income due to lockdowns brought about by COVID-19. The provision of income support through the TUPAD provided emergency employment for displaced workers, the underemployed, and the unemployed poor for a minimum period of 10 days but not exceeding a maximum of 30 days, depending on the nature of the work to be performed. Financial support was provided to affected workers in private establishments that have adopted flexible work arrangements or temporary closure during the COVID-19 pandemic through the COVID-19 Adjustment Measures Program. Through the concerted efforts of the national and local governments, the emergency employment programs provided income opportunities to disadvantaged workers while giving them better access to social protection schemes and long-term employment.

Challenges

Increasing employment and reducing underemployment. Since 2017, the lowest recorded employment rate for the Bicol Region was in 2020 at 90.4 percent, which can be attributed to the lockdowns implemented to prevent transmission of COVID-19. The lockdowns caused the closure of businesses and led to

joblessness in Bicolanos. The pandemic revealed the financial fragility of small and medium enterprises, thereby affecting the Bicolanos' livelihood and employment.

Enhancing education and employment opportunities. Even before the lockdown, unemployment was already a challenge. This was attributed to the limited access to employment opportunities, particularly for those residing in rural and remote areas. In 2020, the Bicol Region ranked second among the regions with the most GIDAs¹⁷, with 489 barangays.

Aside from employment issues in these GIDAs, challenges in education are rampant, such as lack of access to the internet or poor internet connectivity, power interruptions, and other technological difficulties. With the unexpected events brought about by the COVID-19 pandemic, distance learning methods (modular or online) and television/radio-based instructions were implemented. These new learning modes primarily depended on access to the internet and/ or a reliable phone signal. The mobility of training supplies and materials was also a challenge. The GIDAs, due to their physical remoteness, need the necessary government interventions to meet the needs of the learners and the unemployed.

In 2021, a slight increase in employment was observed due to the easing of mobility restrictions and the reopening of businesses, which induced more economic activities. As one of the signs of economic recovery, the employment rate in the Bicol Region further escalated to 94.1 percent in 2022, which is nearing the

pre-pandemic employment rate level. The gradual resumption of face-to-face classes in 2022 also increased domestic activities and prevented future productivity losses. The working-age population, specifically parents, can go to work and pursue income-generating activities.

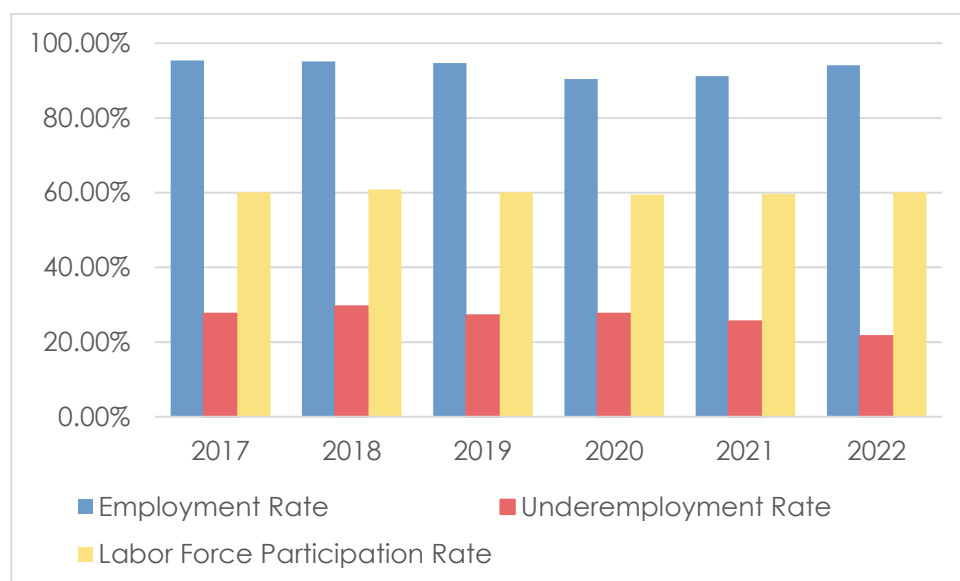
The Bicol Region's underemployment rate or employed persons who expressed a desire to have additional hours of work in their present job, a different job, or a new job with longer working hours remained high. In 2018, the underemployment rate in the region was recorded at 29.6 percent, exceeding the national underemployment rate of 16.4 percent based on the 2018 Annual Labor and Employment Estimates of the PSA. However, in 2022, the average underemployment rate significantly improved to 21.6 percent from 25.6 percent in 2021.

The number of jobless Bicolanos declined in 2022 compared to the 2020 unemployment rate when millions of jobs were shed, and thousands of businesses shuttered after a large percentage of the economy was stopped by lockdowns.

Eliminating skills mismatch and enabling pathways to employment. There must be a match between the skills and competencies of workers sought by employers (demand) and the skills/competencies possessed by individuals in the labor market (supply). Despite implementing various student financial assistance programs in the region, the quality of higher and technical education still needs to improve (*See Chapters 4 and 8*).

¹⁷ GIDA refers to barangays that are specifically disadvantaged due to the presence of both physical and socio-economic factors. Physical factors refer to characteristics that limit the delivery of and/ or access to basic health services to communities that are difficult to reach due to distance, weather conditions, and transportation difficulties. In contrast, socioeconomic factors refer to social, cultural, and economic characteristics of the community that limit access to and utilization of health services. <https://doh.gov.ph/faqs/What-is-GIDA>

Figure 6.1 Labor and Employment Situation in the Bicol Region, 2017-2022



Source: PSA

Reducing the vulnerability of workers in part-time/ temporary/ self-employed to job losses. Workers with no employee-employer relationship have mostly lower levels of job security, and social protection and are more vulnerable to job losses.

These workers need better access to social protection services to cope with risks or secure their livelihoods. Workers with low skills are at a higher risk of being in temporary work than workers with higher skills.

Targets

The Bicol RDP 2023-2028 targets to sustain the percentage of TVET graduates in programs with training regulations certified within five days after graduation at 70 percent, the percentage of skilled workers issued with certification within seven days of their application at 90 percent, and the percentage of graduates from the Technical Education and

Skills Development Authority (TESDA) scholarship programs that are employed at 69 percent. By 2028, the number of graduates from technical education and skills development scholarship programs will increase to 10,769. Further, the Bicol RDP aims to increase the placement rate of PESOs.

Core Indicators

Table 6.1 presents the targets and indicators to increase income-earning ability.

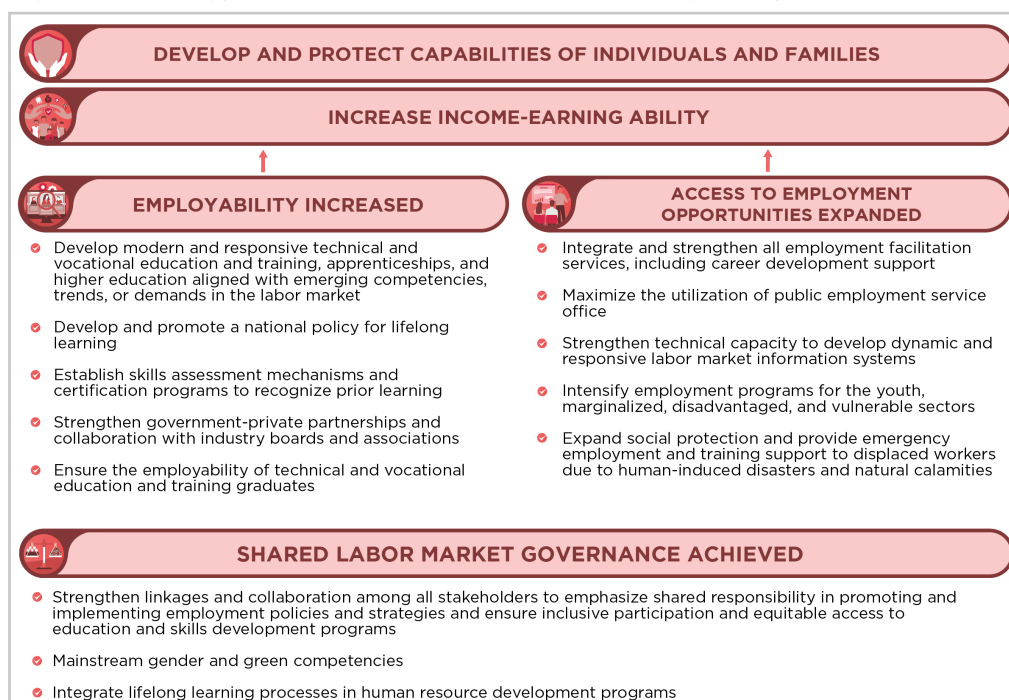
Table 6.1 Core Indicators to Increase Income-earning Ability

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of TVET Graduates in programs with training regulations certified within five days after graduation	70% (2022)	70%						TESDA Training Management Information System (T2MIS)	TESDA

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of skilled workers issued with certification within seven days of their application	90% (2022)	90%						Tracking Sheet for the Issuance of NC/COC	TESDA
Percentage of graduates from TESDA scholarship programs that are employed	69% (2022)	69%						Scholarship Program Online Monitoring System (SPMOR)	TESDA
Number of graduates from TESDA scholarship programs	9,304 (2022)	9,769	9,769	10,257	10,257	10,769	10,769	Scholarship Program Online Monitoring System (SPMOR)	TESDA
Placement rate of Public Employment Service Offices (PESOs) increased	138 (2022)	Actual						DOLE Admin data	DOLE
Percentage of total number of establishments (%) provided with technical assistance which installed or enhanced productivity performance-based incentive schemes	113 (2022)	Increasing						DOLE Admin data	DOLE
Percentage of trained Micro, Small and Medium Enterprises (MSMEs) (%) that implemented productivity improvement program	1,197 (2022)	Increasing						DOLE Admin data	DOLE

Strategy Framework

Figure 6.2 Strategy Framework to Increase Income-earning Ability



Strategies

The strategy framework presents the interventions that will support the objective of developing and protecting the capabilities of individuals and families. To further increase income-earning ability, the government will intensify its efforts to improve human resource quality.

Strategies to increase employability will be pursued. Access to employment opportunities will be expanded. Further developing labor market governance will be highlighted through collaboration and shared responsibility.

Outcome 1: Employability increased

The adaptability and employability of workers will be intensified, focusing on upgrading the human capital of Bicolanos through education, training, and skills development. The following strategies will help achieve the outcome:

Develop modern and responsive TVET, apprenticeships, and higher education aligned with emerging competencies, trends or demands in the labor market.

Aside from skills needs, emerging industries will be identified, such as manufacturing and construction, to align the relevant skills with the labor market needs (*See Chapter 8*). Career guidance will be strengthened to facilitate students' and workers' decisions and options in entering the labor market and regaining employment, respectively, considering the new emerging sectors. This also entails increasing investments in TVET human resources, higher education, digitalization initiatives, and innovation facilities. To ensure access and preparedness by all learners, developing and sustaining easy access to distance learning platforms and learning spaces for TVET will be applied, particularly in practical skills development.

Courses offered by technical, vocational, and professional training institutions will target the in-demand occupations to ensure the employability of graduates. The contents of training modules and

curricular programs will be continuously updated to enhance the development of 21st-century skills (e.g. learning, literacy, and life skills).

Develop and promote a national policy for lifelong learning.

Accelerate human capital development through advocating lifelong learning to provide better opportunities, develop personal, social, professional, and employment-related skills, and improve quality of life. Lifelong learning improves individuals' skills and competencies as work, technology, and skills requirements change (*See Chapter 4*). The PQF, which is a collaborative program by the DepEd, TESDA, CHED, PRC, and DOLE, will be promoted in the Bicol Region as this encourages lifelong learning and builds the workforce's confidence. A local or regional qualifications framework will likewise be adopted to easily assist Bicolanos in remaining responsive to the skills demand and needs of both the domestic and international labor markets.

Establish skills assessment mechanisms and certification programs to recognize prior learning.

The digitalization of skills assessment will be mainstreamed to meet future skills needs, and technical assistance will be provided to address the barriers to digitalization. Upskilling and reskilling efforts will be put in place to ensure that skills shortages are minimized

and workers can enter the labor market with the adequate skills needed to function in high-quality jobs (See Chapter 4).

Strengthen government-private partnerships and collaboration with industry boards and associations. Effective coordination and partnership between the public and private sectors are vital factors of a TVET program towards preparing highly skilled workers for the industry¹⁸. Joint ventures with training institutions will be intensified to equip students with the most updated and advanced knowledge and skills required for international market (See Chapter 4).

Industries will be encouraged to partner with TESDA or TVET stakeholders in offering TVET programs anchored in the Regional Skills Priorities under the Enterprise-based Training. The establishment of industry boards and associations will pursue area-based demand-driven programs supporting occupations in Industry sectors. An enabling environment will be created to allow private-sector investment through increasing investments in TVET human resources, higher education, digitalization initiatives, and innovation facilities. The establishment of Regional TVET Innovation Centers, in anticipation of

the changes and challenges concerning Industry 4.0, as well as innovation hubs for TVET in the Bicol Region will likewise be pursued to support the establishment and development of MSMEs, thereby creating employment (See Chapters 4, 8, and 10).

Ensure the employability of TVET graduates. The effectiveness of tech-voc programs will be continuously measured through the conduct of assessments specifically on the employment rate of the TVET sector in the region. Apart from employment, undertaking livelihood ventures and starting a business will be promoted. While employment brings about security, compensation, and other benefits, owning a business has its perks, such as financial profits considering that businesses can become rewarding and the freedom to do routine tasks. Initiatives and interventions will be undertaken to support business ventures, including the conduct of training and workshops, financial support for start-up activities, and the availability of credit services opportunities, especially for those students and/or graduates with entrepreneurial goals. The provision of greater access to capital to be used as an investment by entrepreneurs would increase employment.

Outcome 2: Access to employment opportunities expanded

Encouraging employment growth in the region will require access to employment opportunities such as the implementation of employment support programs for Bicolanos. Active labor market programs will be crucial to connect the Bicolanos to jobs and address the barriers to productive employment. These strategies

will improve the earnings of the entire workforce, including the most vulnerable individuals, and will promote equality:

Integrate and strengthen all employment facilitation services, including career development support. Aside from pushing for

18 P. 43 Sub-Education Policy Review Report: TVET, UNESCO

the completion of the education cycle, diversifying training opportunities, and assisting job search, other support services such as career development support will be intensified to guide the students to find their way into work. Internship programs will be continued to support the graduate students and the unemployed group to gain work experience that will assist them in finding part-time and full-time jobs.

To facilitate the reemployment of unemployed Bicolanos, programs will be implemented by concerned agencies such as DOLE and TESDA to enable the unemployed to obtain support such as the provision of entrepreneurial training to build their chosen business, while receiving benefits. The PESOs will maximize their reach in the localities through the efficient delivery of employment facilitation services in collaboration with DOLE, TESDA, and educational institutions. The same programs and services will be provided, including repatriation assistance to returning OFWs, focusing on skills and entrepreneurial development to prepare them for their reintegration upon their return to the country. Moreover, the implementation of labor-related programs and projects for OFWs will be pursued by the Philippine Overseas Employment Administration (POEA).

Maximize the utilization of PESO. The LGUs will be enjoined to institutionalize, support, and advance the capabilities of PESOs. The activities, accomplishments, challenges, and best practices of PESO across LGUs will be documented and shared to ensure continuous capacity building and efficient delivery of employment programs and services. With a dedicated information-sharing platform, PESO across LGUs can stay up-to-date with the policies,

practices, and techniques and serve as a communication tool to recognize knowledge gaps and share innovative ideas.

Strengthen technical capacity to develop dynamic and responsive labor market information systems.

The conduct of skills needs analysis at the government and institutional levels will establish the skills that employers require to allow job seekers to participate equally and take advantage of the opportunities determined by priority sectors. Identifying and anticipating skills needed will precede training decisions so that the skills required are relevant to the labor market.

Investments in establishing labor market information systems (LMIS) will be prioritized, which can be used to make informed decisions about the employment field and will result in efficient information flow. Building quality LMIS through technological advancements will improve data access and the user experience. The PhilJobNet, an automated job and applicant matching system and a facility of the DOLE, is envisioned to become the country's one-stop shop for all matters related to labor market information. Aside from job vacancies posted in PhilJobNet, career information guides such as training manuals, labor market trends, and career guidance advocacy programs are available for students, job seekers, and career advocates/guidance counselors¹⁹. The use of the PhilJobNet will be promoted in the region to allow a convenient and user-friendly work exploration for job applicants and search for a suitable workforce by employers.

The DOLE Region 5 will generate an online interactive labor market platform where the DOLE-accredited employers

¹⁹ <https://philjobnet.gov.ph/>

(i.e., labor standards compliant) can post and advertise job vacancies and interact with prospective employees. Aside from ensuring the employability of the Bicolano labor force, increasing the productivity of workers, and enhancing labor mobility and income security, the proposed project will serve as an additional platform to monitor compliance to labor standards.

Intensify employment programs for the youth, marginalized, disadvantaged, and vulnerable sectors. Special training programs and employment opportunities will be provided to disadvantaged groups to involve them in gainful occupations and help them become productive members of society. The PWDs will be prioritized in livelihood programs considering the challenge for them to secure formal employment. In the region, the DOLE Region 5 has assisted two renowned PWD groups (Visually Impaired Voices of Albay and New Hope) in their chosen livelihood. The DOLE Region 5 will continue to conduct a series of livelihood orientations for PWDs and provide livelihood grants to the beneficiaries, specifically in areas in the region with organized PWD groups.

Earning and learning opportunities for students and out-of-school youths will be intensified through the SPES, GIP, and JobStart. Further, TESDA Region 5 will provide training programs that will be responsive to the employment requirements of marginalized and vulnerable groups.

Employment opportunities will be prioritized for those situated in the GIDAs, CAA-CVAs²⁰, and geographic focus areas. In the region, Masbate province has the highest number of GIDA barangays as well as the highest number

of barangays identified as CAA-CVAs, followed by Camarines Sur (*See Chapter 14*). Considering that one of the issues exploited in the said locations is the lack of alternative livelihood and unemployment, services and assistance will be directed to these vulnerable areas to improve the well-being and socioeconomic condition of the affected families and communities and ensure peace and security.

Training programs for Bicolano farmers and fishers will be prioritized to take full advantage of the services designed to reduce poverty incidence and uplift their living conditions (*See Chapter 7*). The training programs will support SDG 4 on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

Expand social protection and provide emergency employment and training support to displaced workers due to human-induced disasters and natural calamities. The vulnerability of the Bicol Region to various hazards that are hydrometeorological, geologic, and volcanic in nature, such as flooding, rain-induced landslides, active faults, and lahar, and biological hazards such as COVID-19, led to lost income opportunities and revenue decline. Local and regional employment will be supported in times of disasters through the following actions: (a) assisting workers, businesses, and enterprises to navigate available programs; (b) job posting and matching to address immediate hiring needs; (c) offering access to skill development programs to facilitate training and adjustment; and (d) providing direct financial assistance.

Aside from protecting the workers' income which can be affected by various

20 Conflict-affected areas (CAA) are communities where (a) there are actual armed encounters between the government forces and political armed groups; (b) where political armed groups dominate the state of affairs of the community; or, (c) where other forms of violent conflicts exist. Conflict-vulnerable areas are communities that are proximate to CAAs, where possible "side-stepping" of armed group(s) are imminent. It can also include GIDAs whose resources (actual or symbolic) are deemed valuable by the political armed group.

risks and crises, social protection will be intensified. Benefits relating to health insurance and pensions will be enjoyed by the workers and will be accessible to both men and women. Emergency employment programs for displaced workers such as the TUPAD, DOLE Integrated Livelihood and Emergency Program (DILEEP), and Training for Work Scholarship Program that serve as immediate income opportunities will be

continued to be granted to the affected individuals. Special leave for employees will be considered in emergencies like isolation periods/ quarantine, and caregiver roles for the family, as a means to provide financial assistance to workers who cannot earn due to extraordinary circumstances. Livelihood assistance will be provided by the OWWA to the distressed and displaced returning OFWs (See Chapters 5 and 16).

Outcome 3: Shared labor market governance achieved

A whole-of-society approach, enhancing multi-sectoral collaboration and engaging stakeholders, is crucial to increase income-earning ability. This will be supported by the following strategies:

Strengthen linkages and collaboration among all stakeholders and ensure inclusive participation and equitable access to education and skills development programs.

Coordination and linkages will be intensified among all stakeholders (i.e. government, industry association, enterprises, social partners, and private sector). With the new and evolving technologies and tools, continuous efforts will be ensured, primarily allowing inclusive participation and equitable access to education and skills development programs.

The government will remain proactive in formulating innovative and effective interventions that enhance income-generating ability throughout the worker's life cycle, especially those of vulnerable groups and communities.

Mainstream gender and green competencies. Men and women will be encouraged and provided with

the necessary assistance to facilitate equal access and gain from green jobs. Environmental literacy, defined as understanding the ecological, social, and economic dimensions of human-environment interactions and the skills and ethics to translate this understanding into life choices²¹, will be advocated in the region. Green entrepreneurship will be promoted to include access to finance and resources and creating gender-sensitive training programs (See Chapter 16). In terms of training regulations, TESDA Region 5 will continue pursuing efforts in implementing the greening of the TVET sector through the inclusion of green policies.

Gender inequalities in the labor market will be addressed by upholding and respecting laws regarding gender discrimination and resolving workplace violence and harassment. The DOLE Region 5 will closely monitor the compliance of establishments and offices in the region on gender indicators and labor standards including but not limited to the implementation of expanded maternity leave, as well as paternity leave compliance, anti-sexual harassment policies, and the presence of lactation rooms, among others.

21 Reynolds, H.L., Brondizio, E.S., and Robinson, J. M. (Eds) (2010) Teaching Environmental Literacy. Across campus and across the curriculum. Bloomington-Indianapolis: Indiana University Press.

Integrate lifelong learning processes in human resource development programs.

Employees will be in their best shape to create opportunities for new roles, challenges, and self-improvement. Hence, there is a need to be proactive about lifelong learning, as this allows employees to adapt, adjust, and thrive in a complex, unpredictable, and changing world. The culture of lifelong learning will be integrated, and innovative practices will be promoted into every organization's human resource development program to empower employees to continue developing their skills and improving organizational performance (See Chapter 4).

The introduction and integration of lifelong skills will be equally considered

for vulnerable groups [i.e. persons deprived of liberty (PDL)] to equip them with the knowledge and skills that are relevant to the needs of the labor market. Benchmarking of strategies from other regions, such as Region 11, specifically "College Education Behind Bars," will be studied and replicated in the Bicol Region, with the objective of ensuring that the PDL are given equal opportunities to learn and eventually be employed. Strategies to facilitate the reintegration of the PDL into society and increase their income-earning ability will be spearheaded by the Bureau of Jail Management and Penology (BJMP) Region 5 in partnership with TESDA, DOLE, and other concerned agencies (See Chapter 14). Mainstreaming of lifelong skills will likewise be ensured in all sectors of society, particularly those with special needs.

Legislative Agenda

Table 6.2 presents the proposed policy reforms for the plan period 2023–2028 to increase the income-earning ability of Bicolanos.

Table 6.2 Legislative Agenda to Increase Income-earning Ability

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Revised National Apprenticeship Program Act	Strengthen linkages with existing education-to-employment policies and programs and prevent the circumvention of labor laws and standards.	TESDA
Lifelong Learning Development Bill	Access to lifelong opportunities will upskill and reskill the labor force, upgrade competencies, and equip Bicolanos, especially the youth, with the proper knowledge and skills for their prospective profession to enhance their employability and improve productivity. The development of a Lifelong Learning Development Framework will lead to the protection of workers from career disruptions and recovery acceleration from job losses.	DOLE
<i>Trabaho Para sa Lahat ng Pilipino</i> Act	Push for job security and opportunities by institutionalizing the National Employment Recovery Strategy and developing it as the National Employment Action Plan.	DOLE
Jobs Creation Strategy Bill	The Bill, co-headed by the DTI, DOLE, and TESDA, including representatives from employers' organizations and labor groups, will facilitate the formation of an Inter-Agency Council for Jobs and Investments tasked to develop employment recovery and job creation in specific industries and emerging sectors, such as but not limited to, construction, tourism, agriculture, information technology and business process management, and manufacturing.	DOLE

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Enterprise Productivity Act (Amendments to Productivity Incentives Act)	Strengthen the objectives of the "Productivity Incentive Act of 1990" by promoting inclusive and sustainable work productivity programs. The Act aims to reinforce labor productivity by: (a) establishing a Productivity Incentives Committee; (b) adopting productivity incentive programs; (c) granting productivity incentives to employees; and (d) providing a tax incentive to business establishments for granting incentives to employees.	DOLE

PART III

Transform Production Sectors to Generate More Quality Jobs and Competitive Products

07

Modernize Agriculture and Agribusiness



Modernize Agriculture and Agribusiness

The agri-fishery sector is the source of food for daily nutritional needs and employment for Bicolanos, especially those in rural areas who draw livelihood from farming, fishing, and livestock and poultry raising. The sector is also a major contributor to abaca, coconut, high-value crops, and marine products, and supplies raw materials for the manufacturing industry.

For 2023-2028, the focus will be on holistic agri-food system approach in addressing the issues and concerns of the sector and to attain the desired outcomes: (1) efficiency of AFF production enhanced; (2) access to markets and AFF-based enterprises expanded; (3) resilience of AFF value chains improved; and (4) agricultural institutions strengthened.

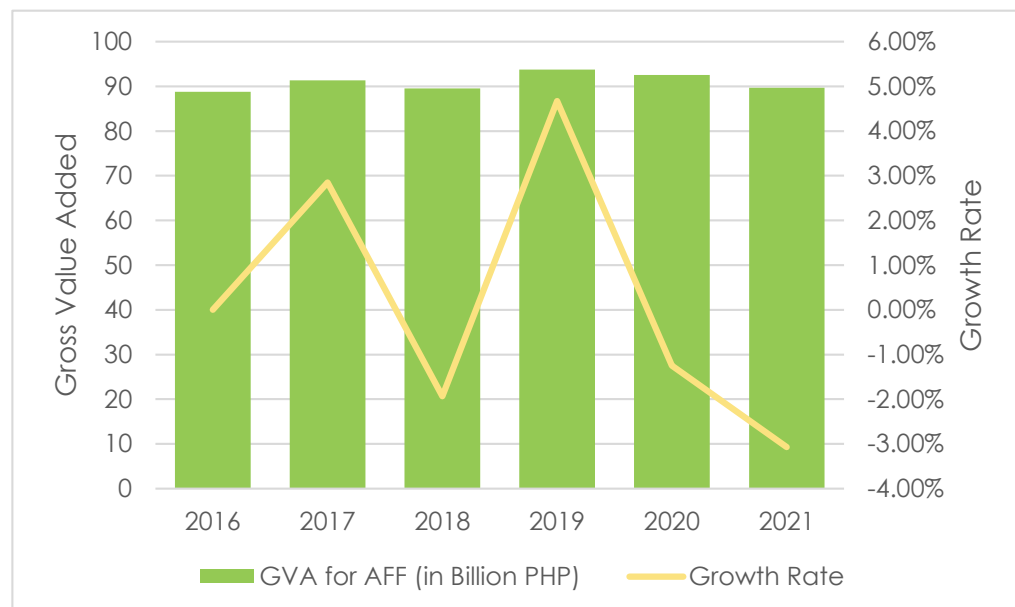
Assessment and Challenges

Assessment

The AFF sector slightly improved by an average of 0.25 percent from 2016-2021, but did not attain the RDP 2017-2022

target of 2.5 to 3.5 percent. The sector accounts for 17.69 percent of the GRDP amounting to an average of PHP90.94 billion during the six-year period.

Figure 7.1 Performance of Agriculture, Forestry, and Fishing Sector, 2016-2021



Source: PSA

Positive growth rates were noted in the years 2017 and 2019 and the highest GVA for AFF was in 2019 amounting to PHP93.73 billion with 4.67 percent growth. On the other hand, there was a decrease in 2018 due to the occurrence of drought in the last part of the year. In 2020 and 2021, the performance also declined due to the effects of COVID-19 pandemic coupled with the emergence of pests and diseases (such as ASF, Avian Influenza, and Fall Armyworm infestation), global price hike of inputs, and weather disturbances (typhoons and drought) in the region.

The GVA for crops increased by only 0.27 percent on average caused by the decrease of six percent in 2019 due to the effects of the drought that occurred in the last quarter of 2018 and carried over to 2019, as well as typhoons in the latter part of 2019. Interventions were implemented by the DA and other government agencies, in coordination with the LGUs, to help improve the performance of the sector.

Palay production increased by 1.3 percent during the six-year period. The RA 11203 or the Rice Tariffication Law was implemented in 2019 which establishes the RCEF allocated for the provision of farm machinery and equipment; development, propagation, and promotion of rice seeds; expanded credit assistance, and training and extension services. Financial subsidies for rice farmers also contributed to the increase in *palay* production. Despite the infestation of Fall Armyworm in some corn areas in Bicol, production increased by 2.9 percent. This was attributed to the immediate pest management and provision of inputs for the control and treatment of the pest in infested corn areas.

Abaca, with a 9.1 percent decline in production, has not yet recovered from the effects of past typhoons, while coconut production improved by 0.7 percent.

These commodities will be prioritized with the passage of RA 11524 or the Coconut Farmers and Industry Trust Fund Act in 2021 and declaring the Province of Catanduanes as the Abaca Capital of the Philippines through RA 11700 in 2022. For high-value crops, pineapple increased by 6.3 percent, while pili nut declined by 4.5 percent. The DA High-Value Crops Development Program continues to distribute seeds, planting materials, and other inputs to increase production.

In terms of livestock and poultry, the sub-sector declined by an average of 1.3 percent due to the spread of ASF in 2020 and 2021. Cattle, chicken, and chicken egg production increased, while production of hog, goat, and cattle declined. The decrease in production was partly attributed to higher prices of animal feeds, antibiotics, and other production inputs due to high transportation costs brought by travel restrictions. Hog production also decreased due to ASF.

Other notable accomplishments include the ALPAS *Laban sa* COVID-19 program of the DA which ensured access to adequate food during the pandemic. Production inputs including machinery, equipment, and facilities were continuously provided to farmers and fishers. The *Kadiwa ni Ani at Kita* program of the DA enhanced the market and income of farmers, and improved consumers' access to safe, nutritious, and affordable agriculture and fisheries products. Various loan programs for the agri-fishery sector were offered by the Agricultural Credit Policy Council (ACPC) to finance the emergency and production requirement of small farmers and fishers.

Challenges

The agri-fishery sector faces long-standing challenges in both production and marketing.

Ensuring access to land and water resources. The reduction in agricultural land is due to land reclassification and conversion from agricultural to other uses. Premature and illegal conversion of prime agricultural lands, irrigated and irrigable lands continue, despite safeguards against land conversion (e.g., Agricultural and Fisheries Modernization Act, Comprehensive Agrarian Reform Program, and Local Government Code).

Irrigation development has been slow due to the long and tedious process of designing and constructing large-scale irrigation systems. On the other hand, the installation of small-scale irrigation systems has been inadequate and many of the existing irrigation systems need rehabilitation or restoration to improve their efficiency (*See Chapter 2*).

Presently, the country has more than enough laws leading to sustainability of the marine resources, but these have not been fully enforced particularly those pertaining to illegal, unreported, and unregulated fishing activities. Limited access to fishing grounds also contributes to the unsustainable use of fisheries and aquatic resources.

Improving farm/labor productivity. Primary production is still dependent on manual labor, as the level of mechanization is rising at a slow pace and is focused only on rice. Farm productivity is limited by the practice of monoculture of low-value crops, and low adoption of high-yielding inputs and climate-resilient technologies. Farmers also do not diversify and there is bias against traditional crops and farming methods.

Lowering cost of production, post-harvest losses and marketing costs. High cost of production is due to increasing prices of farm inputs such as fertilizers

and pesticides. In addition, high post-harvest losses and high marketing cost are due to inadequate post-harvest facilities for drying and milling including transport and logistics infrastructure such as farm-to-market roads and cold chains.

Encouraging participation of youth and women. The average age of farmers and fishers ranges from 48-55 years old, dominated by males. The youth and women are finding more attractive employment opportunities outside the sector.

Strengthening extension service. This slows down the delivery and adoption of farm practices and technologies that are applicable to specific areas and responsive to the needs of farmers and fisherfolk. Inefficiencies in the delivery of extension services can be attributed to inadequate operational funds and lack of human resources of LGUs.

Increasing investments in R&D. Despite the significance of R&D in developing technologies and identifying good farm and fishery management practices, the share of R&D programs remains low in the total budget of the DA and DOST.

Expanding access to credit and insurance. Small farmer and fisher borrowers did not access formal credit due to the lack of technical capacity to develop viable project proposals, no credit track record and acceptable collateral, and limited information on available loan and insurance programs.

Increasing resiliency to climate change, disaster, and other risks. Threats brought by climate change such as tropical cyclones, heavy rainfall, flooding, drought, and volcanic eruption, including supply chain disruptions results to low private sector investments.

Targets

The implementation of the plan will significantly address the challenges and constraints of the AFF sector. Among the major targets in modernizing agriculture and agribusiness is to increase growth in the average family income of skilled agricultural workers, farm laborers, and fisherfolk and increase growth in GVA in AFF. Specifically, the plan aims to increase

growth in AFF labor productivity, increase the level of rice mechanization, increase growth in the total value of approved investments in AFF-related activities, increase growth in the value of agri-fishery exports, and increase the proportion of primary producers covered by agricultural insurance.

Core Indicators

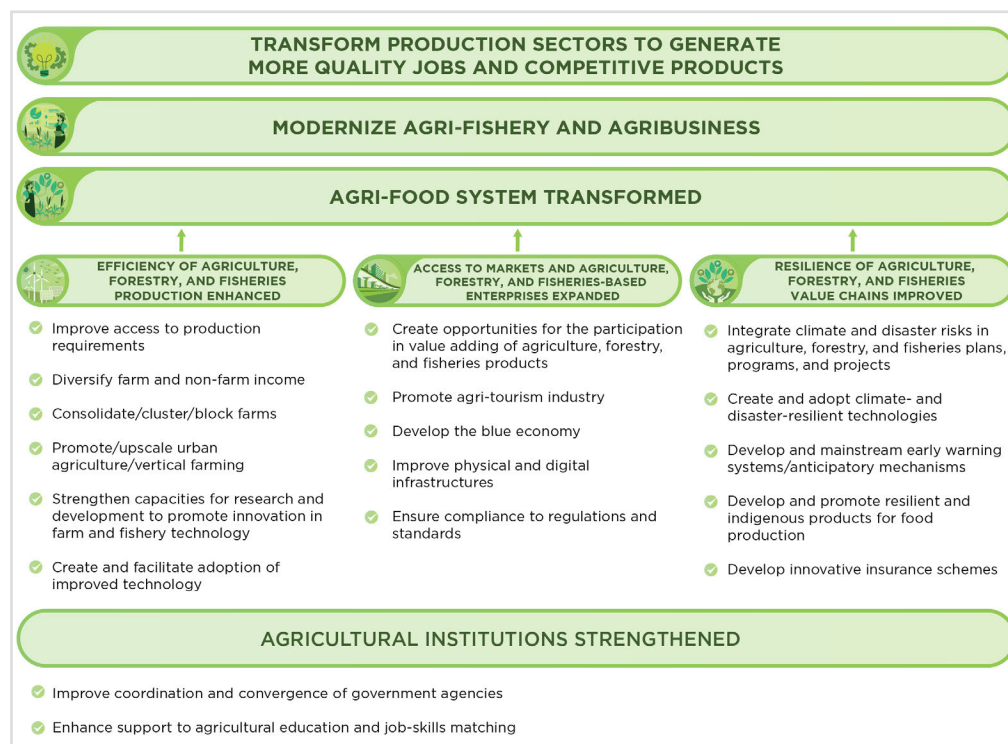
Table 7.1 presents the indicators and targets to modernize agri-fishery and agribusiness.

Table 7.1 Core Indicators to Modernize Agri-Fishery and Agribusiness

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Growth in Average Family Income of Skilled Agricultural Workers or Farm Laborers and Fisherfolk (%)	27.1 (2015-2018)	-	-	20.0-30.0	-	20.0-30.0	-	PSA Report	DA, DAR, LGUs
Growth in Agriculture, Forestry, and Fisheries (AFF) Gross Value Added (GVA) increased (% in constant prices)	0.8 (2022 Q1-Q3)	1.8-3.3						PSA Report	DA
Ratio of High-Value Crops (HVC) GVA to Total AFF GVA increased (%)	21.0 (2021)	21.3	21.7	22	22.4	22.8	23.1	PSA Report	DA
Level of Rice Mechanization improved (hp/ha)	0.21 (2022)	0.49	0.53	0.57	0.61	0.65	0.69	PSA Report	DA
Growth in AFF Labor Productivity increased (%)	-8.7 (2021)	2.30-5.50						PSA Report	DA, DAR, LGUs
Growth in the total value of approved investments in AFF related activities increased (% in real terms)	-24.0 (2021)	10						PSA Report	Investment Promotion Agencies
Growth in the value of A&F exports increased (% FOB value)	-13.9 (Sept 2022)	6.4						PSA Report	DA, DTI
Proportion of primary producers covered by agricultural insurance to total number of primary producers registered in the RSBSA (%)	32% (2022)	37%	42%	47%	52%	57%	62%	DA-PCIC Report	DA-PCIC, DAR

Strategy Framework

Figure 7.2 Strategy Framework to Modernize Agri-Fishery and Agribusiness



Strategies

Outcome 1: Efficiency of AFF production enhanced

Improve access to production requirements. Land, water, energy and capital are the main categories of production inputs. Facilitated access to these inputs is essential for farm productivity improvement.

For land resources, strategies include support programs for efficient utilization of ancestral lands and agro-forestry areas. The DAR will fast-track land acquisition and distribution to qualified agrarian reform beneficiaries under the CARP. Improvement of water management through investments in irrigation systems, which will be focused on disaster- and climate-resilient small-scale irrigation systems; retrofitting, restoration, and rehabilitation of existing irrigation

systems; and modernization and adoption of solar-powered irrigation in suitable areas. In addition, farm and non-farm wastes and biological materials will be utilized, such as palm sap, wood waste, and napier grass, as energy and fertilizer sources.

To expand the coverage of innovative financing schemes and processes, agricultural credit and financing programs under the ACPC, such as the Production, Working Capital, and Agriculture and Fisheries Machinery and Equipment Loan Easy Access, are offered to finance the production, farm machinery, and working capital requirements of small farmers and fisherfolk. Loan and emergency assistance packages will be provided to agricultural

households in calamity-affected areas to help them regain their capacity to earn a living through the Survival and Recovery Loan Assistance Program. Also, *Kapital* Assistance for Young *Agripreneurs* and the *Agri-Negosyo* Loan Program will encourage the youth to engage in agriculture and fisheries ventures, and build the entrepreneurial mindset among our farmers and fishers.

Diversify farm and non-farm income. Farmers will be engaged in commodity diversification through the DA commodity banner programs, particularly on crops with high value-added and export market potential such as fruits, vegetables, marine, and aquaculture products. Animal integration will be considered such as poultry, hog, and small ruminant raising. Also, non-farm diversification during the off-season undertakes other livelihood activities such as handicraft production, small-scale manufacturing, construction, house repair, or local transportation. Diversification of farm and non-farm incomes will further increase value-adding activities, provide additional income from other sources for primary producers, and ensure supply of nutritious food to meet the consumers' demand in the region.

Consolidate/cluster/block farms. These arrangements address the perennial problems of economies of scale and market power. The DA's Farm and Fisheries Clustering and Consolidation Program will facilitate adoption of more efficient mechanization practices and bulk buying of inputs, and increase access to services to enhance productivity. Consolidating small and medium-sized farms will allow product consolidation, expand supply to existing markets, and open new markets, thereby increasing farmers' income.

Promote/upscale urban agriculture/vertical farming. Urban agriculture and vertical farming

will address food security concerns and a continuing rise in the prices of food and basic commodities. The Urban and Peri-Urban Agriculture Program aims to increase vegetable production and farmers' income by engaging the urban areas and maximizing areas for food production. Residents will be encouraged to start growing their own food to ensure they eat safe and fresh produce. The DA, in partnership with the LGUs, will offer assistance to communities in engaging in mushroom culture, hydroponics, and aquaponics, among others. Community gardens will be established in barangays with vacant areas where they can plant, propagate, and produce their own vegetables (*See Chapter 5.1*).

Strengthen capacities for R&D to promote innovation in farm and fishery technology. Investments in R&D, especially those that promote innovation and generate productivity-improving technologies and farm management practices will be augmented. It will focus on generating new knowledge, information, and innovation for the development of better seeds, pest and disease management, extension services, climate change adaptation, value addition and shelf-life extending technologies. The conduct of midstream and downstream R&D projects will be intensified to include localizing or adopting technologies up to the farm level. Personnel of the research institutions, SUCs, and the private sector will be capacitated. The Bicol RRDIC of the RDC will continue to provide direction for the R&D agenda in the region.

The technology commercialization and adoption of basic and applied research will be done by research institutions such as DA, DOST, and the Bicol Consortium for Agriculture, Aquatic and Natural Resources Research and Development (BCAARRD), SUCs and the private sector. Aside from Pili and Pineapple R&D Centers, other priority agri-commodities

in the region such as high value crops will be considered in the Niche Center in the Regions (NICER) Program to support the local industries (*See Chapter 10*).

Create and facilitate adoption of improved technology. Farmers and fisherfolks in the region will be able to access production and post-production technologies through the various DA programs such as RCEF, Coconut Farmers and Industry Development Program, commodity banner programs for rice, corn, high-value crops, livestock/poultry, and fisheries, among others. This can also be done by strengthening

the province-led agri-fishery extension system; increasing investment in research, development, and extension covering the entire agri-food system and covering biological, physical, and digital technologies; and giving priority to extension, both in demonstration sites and digital platforms. Extension support, education, and training programs will be strengthened by LGUs for greater adoption of technologies. The partnership between the government and private sector will be sustained to strengthen the technical capacities of farmers, fisherfolks, youth and rural women in agricultural and fishery development.

Outcome 2: Access to markets and AFF-based enterprises expanded

Create opportunities for participation in value-adding AFF products. Geographically specialized commodity systems will be commercially developed covering processed agri-fishery products such as high-value crops in Albay, pineapple in Camarines Norte, fisheries in Camarines Sur, abaca in Catanduanes, cattle in Masbate, pili in Sorsogon, and other agri-fishery based commodities for which Bicol Region is known.

The private sector will be engaged in setting up more agri-fishery-based industries in the countryside, investing in research as well as developing local and export markets for agricultural products, and promoting agripreneurship to modernize the sector. Linkage with the agro-processing industry will be strengthened through greater participation in an effective value chain to eliminate unnecessary intermediaries and make marketing channels more efficient. Participation in local and international agri-business enterprise-related activities such as trade fairs and market matching will be encouraged to establish local and global networks (*See Chapter 8*).

Promote agri-tourism industry.

Tourism as the economic driver of the Bicol Region will be linked to the agriculture and fishery sectors. Infrastructures leading to agri-tourism destinations will be constructed, and additional investments in improving farms to provide local agricultural experiences to tourists will be encouraged. Collaborations among the DOT, DA, DENR, and DPWH to improve the marketing of the products and services to promote agri-ecotourism will be strengthened. The Farm Tourism Sub-Committee under the RDC Bicol Regional Tourism Committee will oversee the agri-tourism development in the region and provide a venue to discuss pressing issues and relevant programs (*See Chapter 9*).

Develop the blue economy. Pursue effective fishery resource management in the context of the “Blue Economy” with 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 that, when harnessed sustainably, can provide viable solutions

toward achieving food security and inclusive growth. The major fishing grounds include Lagonoy Gulf, San Miguel Bay, and Ragay in Camarines Sur, Sorsogon Bay, and Asid Gulf in Masbate.

The following actions will be undertaken by BFAR in collaboration with the LGUs: (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) establish fishery reservation and conservation areas; (c) comply to fishery laws such as delineation of municipal waters; (d) adoption of harvest control rules and reference points for at least two species of sardines in Balatan, Camarines Sur; (e) implement closed fishing season for selected species in some fishing areas such as Lake Buhi, and provide alternative livelihood to affected fisherfolks; (f) strengthen the aquaculture industry through distribution of fingerlings and provision equipment for the development of fishponds; (g) develop and promote ship building industry in support to the blue economy; and (h) engage marine and fishery schools to intensify information, education and communication (IEC) campaign on blue economy.

Improve physical and digital infrastructures. This will improve efficiency and reduce the environmental impact of the agri-food system. Among the physical infrastructures that need urgent attention are the agri-fishery machinery and equipment, processing centers, cold chain, farm-to-market roads, transport, and logistics.

The provision and utilization of production and postharvest-related machinery and equipment (tractors, threshers, combine harvesters, planters,

and others) will be intensified by DA to minimize production losses and labor costs. Processing facilities will be established such as milling centers, rice processing centers, grain centers, dairy processing centers, and cold chain technology and facilities to properly store and maintain the quality of agricultural commodities. Additional community fish landing centers and fish processing plants will be established and operationalized to improve fisheries post-harvest and cold chain technology and facilities. The FMRs, through the DA's FMR Development Program and Philippine Rural Development Project, connect production areas to the market, as well as coastal landing points to postharvest facilities.

Digital infrastructure is a requirement for facilitating services such as credit, market information, and disaster preparedness. Financial technology such as digital wallets and e-payment systems will be incorporated into agricultural credit and for wider and more efficient credit access. It also includes the promotion and expansion of mobile and web-based platforms/channels for transactions and delivery services such as the e-KADIWA system (*See Chapter 13*).

Ensure compliance with regulations and standards. This includes the adoption of global standards for product safety and quality, and for business practices; implementing the law on Ease of Doing Business; and promoting partnerships between foreign and domestic investors. Farmers and fisherfolks will be encouraged to adopt good agricultural practices (GAP), good animal husbandry practices (GAHP), good aquaculture practices (GAqP), and good manufacturing practices (GMP) to ensure the best quality of agri-fishery products (*See Chapter 11*).

Outcome 3: Resilience of AFF value chains improved

Integrate climate and disaster risks in AFF plans, programs, and projects.

As the Bicol Region is typhoon-prone, science-based climate risk analysis, adaptation measures, and disaster risk management will be enhanced during the plan period. The DA Adaptation and Mitigation Initiative in Agriculture (AMIA) Program will be institutionalized regionwide to develop climate-resilient villages with operational enterprises and commercialized products. To reduce supply chain disruptions such as global pandemics and conflicts, investments in the domestic production of AFF inputs will be intensified, along with creating local business opportunities for the sector to lessen dependence on foreign sources (*See Chapter 16*).

Create and adopt climate- and disaster-resilient technologies.

Among the notable examples are the adoption of early-maturing and resilient/tolerant crop varieties for floods and droughts, improved breeds of animals, water-saving irrigation systems, soil erosion control technologies, and controlled environment crop production systems. This can be done through investments in research, development, and extension (*See Chapter 16*).

Develop and mainstream EWS/anticipatory mechanisms.

The region will invest in their continuous improvement and deployment to guide primary producers in making such decisions as time and place of planting, as well as farm practices, and for fisherfolk who can get caught by a typhoon on the

high seas. This includes mainstreaming the use of remote sensing technologies, the adoption of site-specific, timely, and simplified climate outlooks (e.g., La Nina and El Nino updates), and weather forecasts, improving biosecurity measures to prevent the spread of animal and plant diseases and pests, and accelerating the development of vaccines to control livestock and poultry diseases (*See Chapter 16*).

Develop and promote resilient and indigenous products for food production.

This includes the promotion of traditional food culture through active advocacy, formal and informal education, and support for RDE on the utilization of indigenous species and varieties of plants and breeds of animals. The Access and Benefit Sharing Project of the DENR will develop bio-products from local genetic resources of pili in Bicol. It will increase economic opportunity and biodiversity conservation for local communities and indigenous peoples in the region stemming from fair and equitable sharing of biodiversity benefits (*See Chapter 10*).

Develop innovative insurance schemes.

The weather-based system provides adequate and timely compensation against the risk of profit loss from various threats to production, such as natural disasters, plant diseases, and pest infestations. Agricultural insurance products are available through the Philippine Crop Insurance Corporation as well as private insurance providers.

Outcome 4: Agricultural institutions strengthened

Improve coordination and convergence of government agencies. This strategy includes the review and updating of the status of the Agriculture and Fishery Modernization Act, the completion/updating of the farmers and fisherfolk registry, the adoption of best practices in formulating AFF programs, and the strengthening of agricultural cooperatives. It also includes establishing a portal for all government services and enhancing the coordination mechanisms between and among government agencies in collaboration with the private sector and academe. This will ensure horizontal and vertical linkages given the implementation of EO 138, s. 2021 or the Full Devolution

of Certain Functions of the Executive Branch to Local Governments.

Enhance support to agricultural education and job-skills matching.

This includes the participation of the farm schools or learning sites for agriculture as implementing partners of the concerned government agencies. AFF curricula will be formulated, and AFF schools will be capacitated for teaching modern agri-fishery in the context of agri-food systems, with a focus on innovations for the best and most modern techniques and applications, as well as the commercialization of modern farming and fishing technologies (*See Chapter 6*).

Legislative Agenda

Table 7.2 presents the priority legislations proposed to modernize agri-fishery and agri-business.

Table 7.2 Legislative Agenda to Modernize Agri-Fishery and Agri-Business

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Institutionalize the Pili Industry Development Program	The Bicol Region is the major pili producer in the country. The institutionalization of the Pili Industry Development Program will benefit the region as this will respond to the development needs of the industry.	DA, DOST, DTI, SUCs, LGUs
Philippine Fiber Industry Development Program	This in support to RA No. 11700 which lapsed into law on April 15, 2022, declaring the Province of Catanduanes as the Abaca Capital of the Philippines in recognition of its status as the country's biggest producer of abaca and making the Philippines world-renowned in the fiber industry, and in support to agricultural development of the province.	DA, DOST, DTI, SUCs, LGUs
Magna Carta for Young Farmers	This measure aims to promote and protect the rights of young farmers, establish programs for young farmers, and institutionalize young farmers' representation in agricultural decision-making and policy-making processes. It would address the declining interest of the youth in agriculture and fisheries.	DA, TESDA, SUCs, LGUs
Integrated Urban Agriculture and Vertical Farming	This is to promote urban agriculture and vertical farming to address food security concerns and continuing rise in the prices of food and basic commodities.	DA, DOST, LGUs

08



Revitalize Industry



Revitalize Industry

By 2028, the industry sector of the Bicol Region will be revived by expanding the domestic market, advancing the value chain, and strengthening cross-sectoral ties to produce more high-quality jobs and competitive products. Science, technology, and innovation (STI) will be integrated in all interventions and aspects of industrialization, making it a way of life of key industry players.

At the end of the plan period, the following subsector outcomes will be achieved: (1) domestic market production and supplier base expanded; (2) moving up the value chain achieved; and (3) inter-sectoral linkages enhanced.

Assessment and Challenges

Assessment

The Bicol RDP 2017-2022 aimed to expand economic opportunities in the industry through *Trabaho* and *Negosyo*, which helped reduce inequality in economic opportunities. The Plan targeted an increase in the GVA in the Industry sector, labor productivity, and tourist arrivals.

From 2017-2021, the average GVA for Industry increased by four percent, with construction posting the highest growth

at 6.75 percent followed by manufacturing at 3.24 percent.

Disasters at the beginning of 2020 pushed the government to take immediate action to curb impacts. The COVID-19 pandemic slowed down the achievement of industry targets but was able to register positive growth rates when the economy was re-opened. In 2021, the industry sector grew significantly to 8.8 percent which is attributed to the government's response to address COVID-19.

Table 8.1 Growth Rates by Major Industry in the Bicol Region, 2017-2021, at Constant 2018 Prices

SECTOR	2017	2018	2019	2020	2021
Industry	4.0	13.2	7.9	-13.5	8.8
a. Mining and quarrying	2.5	16.0	-2.0	-22.1	21.2
b. Manufacturing	2.1	6.0	7.7	-5.0	5.4
c. Construction	7.9	22.6	11.4	-20.0	11.9
d. Electric, gas, and water supply	-1.0	2.3	1.0	-6.2	3.5

Source: PSA

In 2021, Mining and Quarrying grew by 21.2 percent from a contraction of 22.1 percent in 2020, the fastest among the sectors and subsectors in the region. The resumption of operations of some mining

companies in 2021 largely contributed to the increase in the taxes, quantity, and value of mineral resources production.

The growth in the construction industry

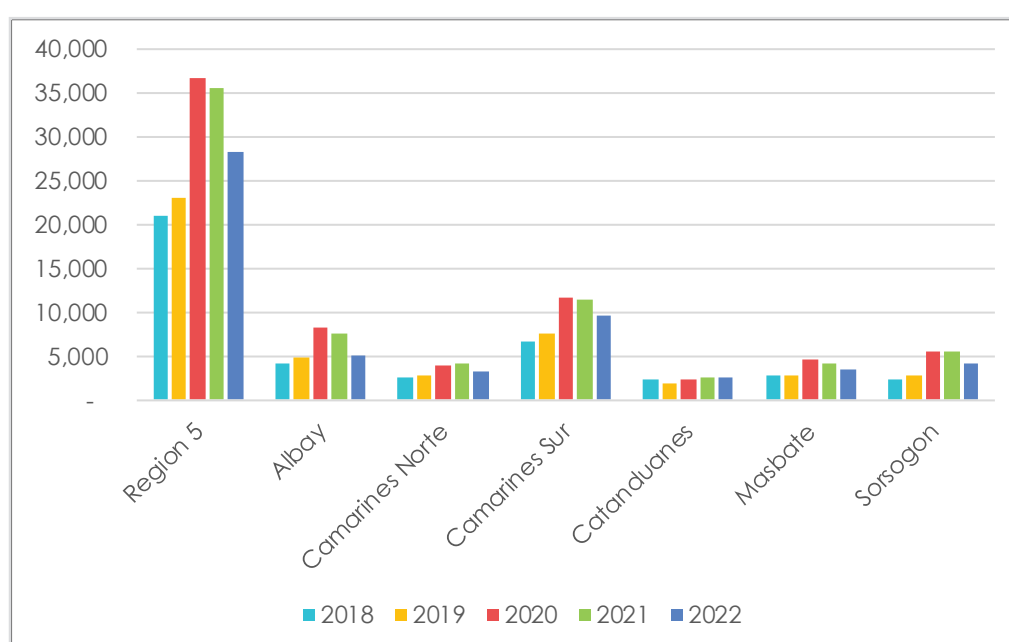
can be attributed to the construction of residential and commercial infrastructure projects and the government's spending on infrastructure projects under the Build, Build, Build Program (*See Chapter 13*).

For electricity, steam, water, and waste management, the growth is attributed to the increase in electricity sales by 21.3 percent and the increase in water production by 4.5 percent in 2021. The resumption of operation of various

establishments and other industry players impelled higher electricity demand.

There were 28,214 approved business names registered with the DTI Region 5 in 2022, 20.6 percent less than registrations in 2021. The province of Camarines Sur recorded the highest number of approved business name registrations in the region at 34.0 percent and Catanduanes with the least at 8.9 percent (Figure 8.1).

Table 8.1 Growth Rates by Major Industry in the Bicol Region, 2017-2021, at Constant 2018 Prices



Source: DTI

In terms of domestic investments, stock/non-stock corporations and partnerships registered with the Securities and Exchange Commission (SEC) in the region generated a total paid-up capital of PHP952.00 million in 2021, lower by 43.88 percent from the value generated in 2020. Stock corporations posted the highest number of paid-up capitals starting in 2020 with PHP2.17 billion. The growth is almost the same for non-stock corporations but in 2018 it increased to PHP113.94 million. Despite the pandemic, capital infusion in the local economy

continues, through the paid-up capital of corporations and capital contributions of partnerships, totaling PHP3.1 billion for the combined years 2020 and 2021.

Investment promotion programs intensified. Before the pandemic, the MSMEs were urged to participate in local and international trade fairs to promote their products and increase investments. The Bicol craft and food industries were reinforced, diversified, enlarged, and enhanced in quality as a result of the trade fairs. Travel and tourism fairs were

conducted, highlighting food, MSME development, and travel exchange. A total of 48,831 MSMEs from 2017-2021 were assisted through various programs and initiatives.

The creation and upkeep of shared service facilities and NCs in the area contributed to the achievement of SDG 8 on the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work, as these programs improved the productivity and efficiency of MSMEs. Facilities, tools, equipment, and significant knowledge were provided to MSME beneficiaries to help improve production and operations, and support the achievement of SDG 9 on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.

Investments in infrastructure increased.

With the Build, Build, Build Program, the construction sector received the biggest proportion of investments. The improvement of access roads to tourism sites through the convergence program on enhancing tourism access paved the way for the opening of new tourist destinations and thus the growth of the tourism industry (*See Chapter 13*).

Advocacy and capacity-building programs in the tourism industry improved.

Training programs were conducted to enhance the skills of tourism professionals and improve the quality of tourism-related establishments' services. To assist the LGUs in the development and management of tourism and to promote sustainable tourism development in Bicol, advocacy activities such as: (a) campaigns to raise awareness of the industry; (b) orientation sessions on tourism planning guidelines for LGUs, visioning, strategic planning, and project development; and (c) and training in the basics of tourism

statistics were carried out.

Enhance linkage between MSMEs and large corporations.

The KAPATID mentor ME (KMME) project linked the MSMEs to large companies' value chains. The project has three components: (1) Mentor ME (micro-entrepreneurs) program; (2) adopt-a-shared facility program; and (3) inclusive business model.

Access to financing increased. Through the establishment of NCs and the implementation of SSFs, Bicolano entrepreneurs increased their economic opportunities. The MSMEs were assisted through programs which include KMME and SME Roving Academy (SMERA) that enhanced participants' knowledge in entrepreneurship.

Financial literacy training was provided to MSMEs, cooperatives, students, and other stakeholders to empower them to make informed and effective decisions concerning their financial resources. There is a growing number of cooperatives in the region, 124 of which were registered in 2021 with paid-up capital of PHP36.11 million.

Challenges

The following are the challenges during the plan period:

Unfavorable business environment for sector competition.

The high cost of doing business in the region is still a concern as production cost increases directly as that of power supply.

Accessing financing windows. The lack of collateral and information prevented banks and other creditors from accurately assessing borrowers' creditworthiness are the two main obstacles that MSMEs encounter when applying for financing.

The increased risks and threats of business insolvencies brought by the COVID-19 pandemic made it more difficult for MSMEs to get the much-needed liquidity.

Enhancing digital skills. The rapid shift to more digital platforms highlighted the increasing requirement for a range of digital and complementary skills.

Creating jobs in high-productivity firms. Most of the labor force is employed in low-productivity firms. To generate high productive workforce, the manpower will require special attention to innovative strategies for the future labor market.

Utilizing the region's resources for industrialization. The Bicol Region has a comparative advantage in terms of developing the full potential of the abaca

in Catanduanes, the cattle in Masbate, the queen pineapple in Camarines Norte, the pili which are both found in Sorsogon and Albay, root crops in Albay, and corn in Camarines Sur.

Modernizing the region's infrastructure. Enhancing physical and digital connectivity, and ensuring a low-cost and reliable supply of water and electricity are some of the factors that hamper the economic growth of the region (See Chapter 13).

Strengthening the institutional structure at the local level. Some LGUs are not capable of providing an environment conducive to private sector investments, particularly in providing incentives due to the lack of local investment and incentive codes.

Targets

The Bicol RDP 2023-2028 targets to increase the following: (1) GVA growth in the Industry sector from 8.8 percent

in 2021 to 9.5 percent in 2028; and (2) employment generation in the industry from 35,000 in 2022 to 46,900 in 2028.

Core Indicators

Table 8.2 presents the indicators and targets to revitalize industry.

Table 8.2 Core Indicators to Revitalize Industry

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
GVA growth of the Industry sector sustained (%)	8.8 (2021)	*8.0-9.5						RSET	DTI, PSA
GVA Growth of Construction increased (%)	11.9 (2021)	16.0-17.0	16.0-17.0	16.0-17.0	16.0-17.0	16.0-17.0	16.0-17.0	PSA/DTI Report	DTI, PSA
Employment generated in industry increased (in thousands)	35.0 (2022)	36,750	38,580	40,510	42,540	44,670	46,900	PSA/DTI Report	DTI, PSA
RIICs established/maintained	1 (2022)	1						DTI Report	DTI
Number of Knowledge, Innovation, Science and Technology (KIST) parks maintained	2 (2022)	2	2	2	2	3	4	DTI Report	PEZA, DTI

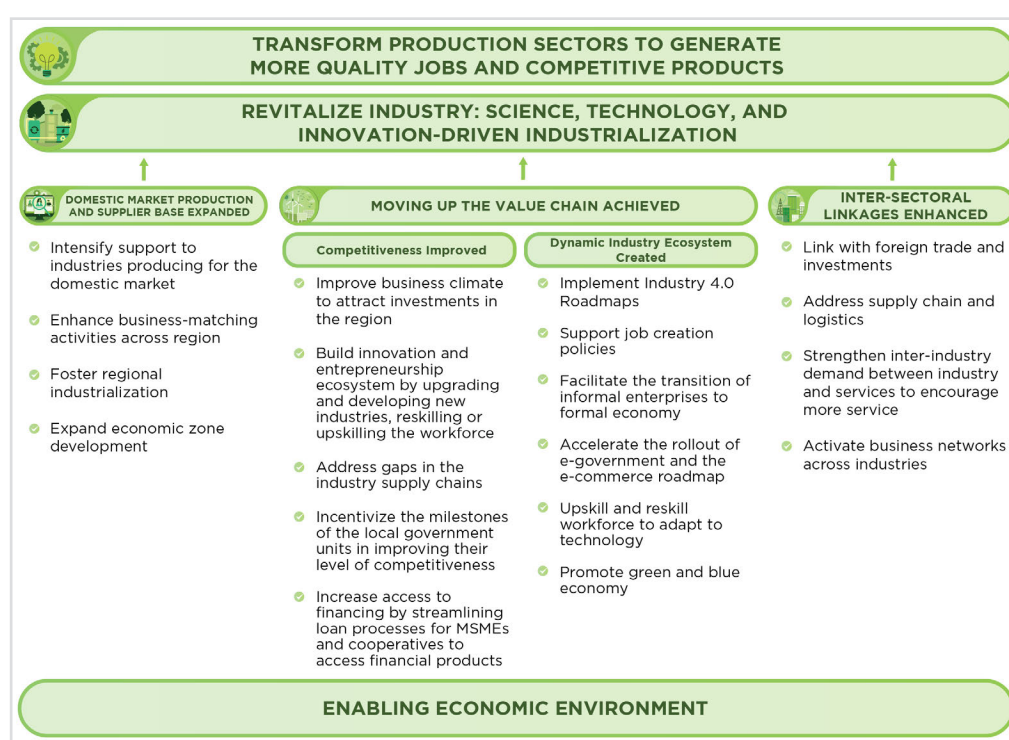
*target for validation

Strategy Framework

Revitalizing the industry will contribute to transforming the production sectors in generating more quality jobs and competitive products towards economic transformation for a prosperous, inclusive, and resilient society. By 2028, the following subsector outcomes will be achieved: (a) domestic market production and supplier base expanded, (b) moving up the value chain achieved; and (c) inter-sectoral linkages enhanced.

The strategy framework to revive the industry adopts a culture-sensitive perspective, a gender-sensitive paradigm, is human rights-based, and adheres towards achieving sustainable development goals. This ensures that the interests of vulnerable groups, such as IPs, PWDs, women, young people, and children, are carefully taken into consideration.

Table 8.2 Core Indicators to Revitalize Industry



Strategies

To generate more quality jobs and competitive products, the Industry sector will be revitalized by expanding the domestic market and supplier base, moving up the value chain, and enhancing

linkages across sectors.

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

Outcome 1: Domestic market production and supplier base expanded

Intensify support to industries producing for the domestic market.

The priorities will include enhancing advocacy and capacity-building initiatives to motivate companies, particularly MSMEs, to take advantage of export prospects. The Bicol enterprise will build a solid domestic market base. Domestic markets and supplier base will be expanded by leveraging global service centers to attract information technology outsourcing (ITO) and knowledge process outsourcing (KPO) investment (*See Chapter 10*). There is a need to boost Philippine goods and services marketing and promotion, as well as market research.

Enhance business-matching activities across the region.

Enterprises will collaborate closely with DepEd, CHED, DOLE, and TESDA to ensure the matching of skills and development of students with the job requirements of industries (*See Chapter 6*). Partner with TESDA for free training and certification of auto and small engine mechanics and technicians of Service and Repair Enterprises (SREs).

Foster regional industrialization.

The DTI Region 5 will work for the advancement of the implementation of production-based regional development. Programs will include the establishment of more One Town, One Product (OTOP)

Nooks in tourism-related firms in the provinces of Bicol.

Universities will serve as knowledge hubs which will perform R&D work on enterprises. There will be a full operationalization of the Bicol Fablab and other co-working space for local start-ups. The Regional Inclusive Innovation Centers (RIIC) and other similar interventions will keep offering training on design thinking and acting as meeting places for the academic community, business community, and other ecosystem actors (*See Chapter 10*).

Expand economic zone development.

Concentrate industrial expansion/growth in urban areas and promote vertical development, especially in highly urbanized areas. Increase agri-based industry investment by establishing and strengthening ties between large industries or businesses and small businesses as part of value chain development. The eight operating economic zones in Bicol, such as Camarines Sur Information Technology Park, Embarcadero de Legazpi, Gernarine Information Technology Center, Jose Panganiban SEZ, Misibis Resorts and Estates, Naga City Technology Park, Robinsons Cybergate Naga, and the ANR Business Center will be promoted.

Outcome 2: Moving up the value chain achieved

Improve competitiveness

The strategies to improve competitiveness will include (a) improving the business climate to attract investments in the region; (b) building an innovation and

entrepreneurship ecosystem by upgrading and developing new industries and reskilling or upskilling the workforce; (c) addressing gaps in industry supply chains; (d) incentivizing the LGUs for achieving their milestones in improving their level

of competitiveness; and (e) increasing access to financing by streamlining loan processes for MSMEs and cooperatives to access financial products.

Accelerate the digitalization and innovation of MSMEs and startups. With the new normal, MSMEs will remain competitive. The strategies that will support MSMEs and startups include: (1) business mentoring and entrepreneurship training to help establish more MSMEs; (2) intensifying support for the digital transformation of MSMEs and the growth and development of startups; and (3) conducting extensive innovation pitching for MSMEs and startups.

Dynamic industry ecosystem created

Implement Industry 4.0 Roadmaps. The 4th Industrial Revolution (IR) technology will transform industries towards an increasing share of STI intensive sector to the GDP through the adoption of this new technology. The roadmap outlines overall strategies for the facilities and services, human resources, R&D technologies, and science and technology policies.

Support job creation policies.

The Operationalize the Green Jobs Law (RA 10771) will promote job creation in various industries and development of green skills. Other strategies include incentivize on-the-job digital skills training, strengthen government-industry-academe linkages, and develop digital skills roadmap (*See Chapter 6*).

Facilitate the transition of informal enterprises to formal economy. Enterprise formalization is part of a multidimensional and

balanced approach as outlined in International Labour Organization (ILO) Recommendation 204. It aims to create more and better jobs, reduce poverty, and address the marginalization of those who are especially vulnerable to the most serious decent work deficits in the informal economy. From the point of view of informal enterprises, informality is associated with the risk of detection by law enforcement officials and often constitutes an obstacle to growth, as it makes it more difficult for them to access formal finance, business development services, technologies, and investments.

Accelerate the rollout of e-government and the e-commerce roadmap. Support the implementation of the Innovative Start-Up Act by making research and digital technology diffusion programs efficient and demand-driven.

Upskill and reskill the workforce to adapt to technology. With advancements in digital technology, new jobs will emerge that will increase productivity. It will require increased investment in new skills, capacity building, and the development of the skills framework.

Promote green and blue economies. The green economy will include the provision of critical life support services – clean air and water, and the resilient biodiversity needed to support food production and health. The blue economy supports sustainable economic growth through ocean-related sectors and activities while improving human well-being and social equity and preserving the environment (*See Chapters 15 and 16*).

Outcome 3: Inter-sectoral linkages enhanced

Link with foreign trade and investments. Creating an enabling environment and improving the ease of doing business are necessary to attract local and foreign investments as well as new businesses to the region (*See Chapter 11*).

Address supply chain and logistics. Develop strategies to encourage more investment and competition in connectivity and logistics services. Investments in modern, efficient air, land, and sea infrastructure, as well as in physical and digital infrastructure, power, and logistics, will increase aggregate productivity and lower business expenses (*See Chapter 13*).

Strengthen inter-industry demand between industry and

services to encourage more services. This will create synergies for more value-adding opportunities expansion of products and markets and a more efficient delivery network. The Bicol region will prioritize the three industry clusters: (a) Industrial, Manufacturing, and Transport (IMT); (b) Technology, Media, and Telecommunication (TMT); and (c) Health and Life Science (HLS) which will give advantage to the region's export. Policies that will build ecosystems around clusters will be pursued to attract more investments and expand their demand for higher-productivity jobs.

Activate business networks across industries. Industry partnerships will be developed to address coordination issues and to make information and resource sharing easier.

Legislative Agenda

The following are the priority legislative agenda that will support the strategies to revitalize industry outcomes.

Table 8.3 Legislative Agenda to Revitalize Industry

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Amendments to the PEZA law	Updating of the 27-year-old PEZA law to adapt the digitalization of the locators.	PEZA
Philippine Skills Framework Initiative	Common reference or language that employers and workers share to ensure the match between jobs and skills	
Science and Technology Parks Act	The establishment of Science and Technology Parks (STPs) will promote a culture of competitiveness and innovation through the active promotion of investments from tech-based enterprises and knowledge-based institutions.	DTI
Internet Transactions Act	It will provide an effective regulatory policy for commercial activities conducted through the internet or electronic means.	DTI
Enterprise Productivity Act	Aims to strengthen productivity improvement and gain sharing between workers and enterprises.	DTI

09

Reinvigorate Services



Reinvigorate Services

The Services sector’s current low productivity level will become modern, effective, and resilient through higher value-adding and improved services and the entry of new key players. Market expansion and digital transformation will strengthen businesses’ market positions, expand new customer regions and market categories, and explore diversification. The Tourism sector, in which the Bicol region has a comparative advantage, will play a significant role in the fast socio-economic recovery of the region brought about by COVID-19 and the previous disasters.

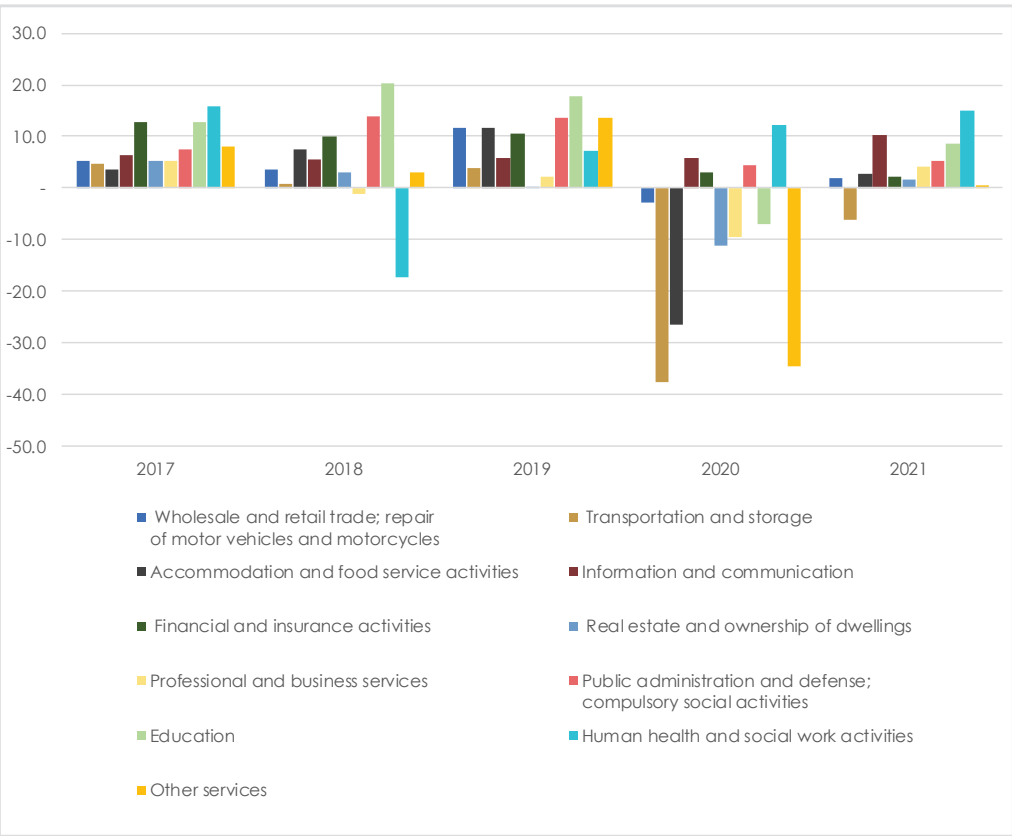
Assessment and Challenges

Assessment

From 2017-2021 the Services sector grew by an average of 4.08 percent, lower than

the 6.9-7.9 percent RDP 2017-2022 target. This is attributed to the impacts of the COVID-19 pandemic and TCs QRU and Paeng.

Figure 9.1 Growth Rates, Services, 2017-2021 at Constant 2018 Prices



Source: PSA

From 2017-2021 the Services sector grew by an average of 4.08 percent, lower than the 6.9-7.9 percent RDP 2017-2022 target. This is attributed to the impacts of the COVID-19 pandemic and TCs QRU and Paeng.

In terms of average annual GVA from 2018-2021, education ranked the highest with 4.8 percent followed by Human Health and Social Work with 3.53 percent, Transportation and storage with 2.95 percent, Accommodation and Food Services with 2.75, and Public Administration and Defense with 2.7 percent.

The share of the Services sector to the region's output increased from 46.5 percent in 2018 to 47.7 percent in 2021. The 1.2 percent increase was due to the following factors: (a) intensified marketing and promotion of Philippine products and services and market intelligence; (b) expanded services for MSMEs on packaging and labeling, technology training, and laboratory and testing services; and (c) increased revenues from the tourism and tourism-related activities prior to the COVID-19 pandemic.

The Services sector contributed the biggest employment from 2017-2020, mostly coming from the wholesale and retail trade at an annual average of 485,810 employed persons from 2017-2020.

In terms of the banking industry from 2017-2020, universal and commercial banks, thrift banks, and rural and cooperative banks were the main financial institutions in the region. The distribution of the loan portfolio revealed that in 2020, commercial and universal banks comprised 66.39 percent of the region's total loan portfolio, while rural and cooperative banks accounted for 14 percent.

Several reforms were implemented which

include the Ease of Doing Business and Efficient Government Service Delivery (EODB-EGSD) Act. Other key reforms that provide support to the Services sector include Amendments to the Retail Trade Liberalization Act, Amendments to the Foreign Investment Act, and Amendments to the Public Sector Act.

Challenges

Reducing the cost of doing business.

There is a need to reduce the cost of doing business such as the high cost of utilities such as power and water. These factors are critical in improving business climate in the region which is one of strategies to spearhead promotion and attract more investments.

Increasing digital connectivity and ensuring digital security.

There remains a gap in terms of access to digital infrastructure and services between businesses and markets, individuals, and households, particularly in the GIDAs of the region. The lack of infrastructures that will support the digitalization of the services sector is still inadequate. The data users of the services sector must also be protected from malicious attacks (*See Chapter 13*).

Addressing the mismatch in market demand requirements.

Education and training are not providing the skills demanded in the labor market, and the economy does not create jobs that correspond to the skills of individuals.

Accessing financing windows. The MSMEs lack adequate access to capital at reasonable rates to either finance its core business activities or expand business.

Creating jobs in highly productive firms. Most of the labor force is employed in

low productive firms. To improve the productivity of the workforce in the

region, there is a need to introduce skills development aligned with the demand of

the future labor market (See Chapter 3).

Targets

The plan targets increasing GVA growth in the services sector, from 3.9 percent in 2021 to 6.4-7.9 percent in 2028. Domestic

tourist arrivals will increase by 8.31 percent and foreign tourist arrivals by 0.27 percent.

Core Indicators

Table 9.1 presents the indicators and targets to Reinvigorate Services

Table 9.1 Core Indicators to Reinvigorate Services

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
GVA growth rate in the services sector improved (%)	3.9 (2021)	*6.4-7.9						RSET	DTI, PSA
Foreign tourist arrival (in million)	0.008 (2022)	0.125	0.176	0.194	0.217	.241	.267	DOT Report	DOT
Domestic tourist arrival (in million)	0.98 (2022)	4.707	5.884	6.473	7.120	7.689	8.305	DOT Report	DOT

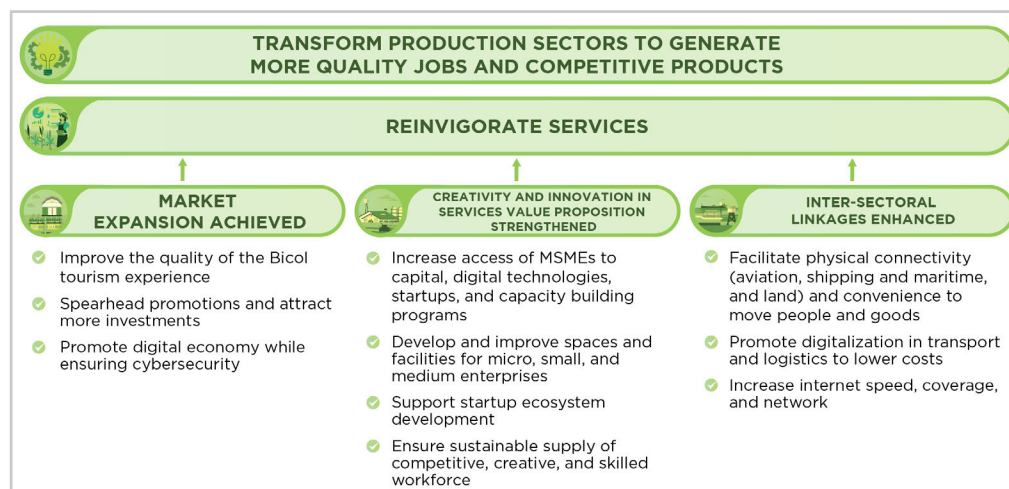
*target for validation

Strategy Framework

In generating more quality jobs and competitive products, the plan aims to reinvigorate services in the next six years. Digital technologies and partnerships between government and private sectors will play a crucial role in stimulating growth in the Services sector. Since the Bicol region is a services-driven economy, improvements in this sector will propel the regional economy back to

its pre-pandemic growth path. Aggressive marketing and promotion initiatives along with innovative efforts in major and comparative industries of Bicol will be pursued. Three sector outcomes are envisioned: (1) market expansion achieved; (2) creativity and innovation in services value proposition strengthened; and (3) inter-sectoral linkages enhanced (Figure 9.2).

Figure 9.2 Strategy Framework to Reinvigorate Services



Strategies

Outcome 1: Market expansion achieved

Improve the quality of the Bicol tourism experience

Diversify product portfolio.

Multidimensional tourism will be pursued to provide a variety of experiences by showcasing the culture and heritage, nature tourism, agri-tourism, dive and marine sports, sports and adventure, leisure and entertainment, and cuisine of the Bicol region. Clustering of areas will be continued, such as initiatives pursued for ALMASOR and the Triple C Area Development Circuits. Each cluster has a number of ready tourism products mixed and packaged to come up with distinct travel bubbles sold mostly by DOT-accredited tour operators and travel agencies.

The DOT 5 has its repackaged Bicol Tourism Circuit, to wit: (a) Bicol Center for Fun, a southern mainland Luzon fun trip of food, farm, and faith to Camarines Sur, Albay, and Sorsogon, designed to link with the NCR, MIMAROPA, and 4-A package by land connectivity; (b) SorMas Dive Safari, a unique dive and drive adventure to the wealth of wonders of Sorsogon and Masbate; (c) Happy Island-Tugawe Connection, a unique eco-cultural adventure to the happy island of Catanduanes and the Tugawe nature paradise of Caramoan, Camarines Sur; and (d) Albay Costa-Burias Ridge to Reef Adventure, adventure to the beautiful and unique ridges and amazing reefs of Burias Pass.

Improve tourism governance. The LGUs will be converted into destination management organizations with significant private sector involvement. The LGUs will take the lead in creating

and implementing their tourist plans as well as formalizing tourism offices for sustainability. Carrying and adaptive capacities of destinations will be considered in the provision of infrastructures in the tourism areas. Regional governance will be led by the RDC through its Bicol Regional Tourism Committee, especially on policy-making and other major interventions.

The DOT Region 5 will accelerate the roll out of the product development manual and training modules for LGUs to increase the readiness of products and destinations for safe, smart, and sustainable tourism. The LGUs and DOT will assist firms in finishing accreditation, capacitate tour guides, and include locals in promoting their respective areas. Establishments that support high standards for amenities and services will be expanded. Carrying capacity studies will be conducted to preserve the ecological integrity of ecotourism sites and improve environmental quality. Human resource development and institutional support as one of the priority actions of the DOT will include: (a) harmonization of rules, policies, and standards for tourism-oriented establishments (TOEs) and tourism-related enterprises (TREs); (b) capacity-building programs for tour operators, TOEs, TREs, LGUs, NGAs, and People's Organizations (POs); (c) institutionalization of tourism offices; and (d) convergence programs between LGUs and NGAs.

Spearhead promotions and attract more investments

Engage more in high-impact international events and dedicated

investments. There will be a focus on attracting investments to build on positive perceptions and success stories of places and individuals. Encourage collaborations with DTI and DFA in gathering and sharing market intelligence as well as in exhibiting Bicol resources such as Bicol Tourism and Food Expo for creative tourism. Investment promotion guides and local investment and incentives codes will be prioritized to attract targeted entrepreneurs in the region.

Invest in year-round multi-media campaigns. The LGUs, private sector, and educational institutions will encourage Filipinos to travel and promote pride in place and culture in the region. Demonstrate the region's current abilities to provide high value-added and differentiated services such as transportation design, AI-based services, and other digital services. As part of the Bicol Regional Tourism Development Plan, one of the priority actions on the market research and information, the digital infrastructure and information structure of LGUs, DOT Region 5, and other stakeholders will be improved.

Improve the business climate. Investments will be drawn to the area when the business climate has improved. The cost of doing business shall be reduced by upgrading infrastructure facilities, lowering power and water costs, simplifying business procedures, and improving the productivity levels

of manufacturing companies. Business permit licensing shall be streamlined in all LGUs. Improved competitiveness of the LGUs will play a significant role in improving the business climate (See Chapter 15).

Promote digital economy while ensuring cybersecurity

Encourage businesses to engage in e-commerce. The visibility and global reach of businesses will be enhanced through awareness and advocacy campaigns. Private technology companies and platform providers, industry associations, and conglomerates will be encouraged to scale up collaboration with the DTI and partner agencies to increase the adoption of e-commerce tools by MSMEs in their services to improve processes and to accept digital payments towards a cash-lite economy.

Establish secured e-payment systems and ensure consumer/ supplier protection. The enhanced protection will create value through increased traceability of goods, including imported orders. A legal framework to boost cybersecurity will be adopted, as well as policies on minimum information security standards, safeguarding the ICT systems of public institutions, transportation, and e-commerce transactions, and enhancing the ability of the private sector to reduce creative output piracy (See Chapters 13 and 15).

Outcome 2: Creativity and innovation in services value proposition strengthened

Increase access of MSMEs to capital, digital technologies, startups, and capacity- building programs

Upgrade MSMEs through STI). The MSME processes, products, marketing,

and organization will be upgraded. MSMEs will gain access to ideas, technology, and talents to improve their performance from the RIIC, and other government programs. Under the Philippine Innovation Act, creative industries can avail of shared

service facilities of DTI, as well as the infrastructure and R&D support programs of the DOST. MSMEs will be provided with training packages on digital transformation for onboarding opportunities to the global online market.

Enhance digital management and entrepreneurship competencies of MSMEs. Through the implementation of the Digital Workforce Competitiveness Act, the DTI, in coordination with relevant government agencies and the private sector, will establish co-working or shared service facilities to support the development and enhancement of digital skills and competencies of entrepreneurs, especially women, and the current and future workforce.

Develop and improve spaces and facilities for MSMEs

Match real estate development projects to the requirements of creativity, innovation, and entrepreneurship ecosystems. The development of technology parks, centers of creative excellence and innovation, creative talent hubs, and shared services facilities for MSMEs will be pursued. The Information Technology and Business Process Management (IT-BPM) companies will have dedicated 'creative hubs' with flexible workspaces and common infrastructure to support creative freelancers. Creative hubs with training and advanced opportunities, advanced research labs, and business support centers (for legal, mentoring, and guidance services, linkages with investors, and repositories for creative images as sources of inspiration) will be established to support MSMEs, creative entrepreneurs, and startups.

Support start-up ecosystem development

Provide funds and incentives. Low-

interest loans, scholarships, research grants, and training subsidies will be provided to promote start-ups, digital technology careers, innovations, and research projects that will address industry needs. Financial capital will be provided under the Corporate Recovery and Tax Incentives for Enterprises Act, The Philippine Innovation Act, the Innovation Start-up Fund Act, and the Digital Workforce Competitiveness Act to support startup entrepreneurs, scientists, and researchers to achieve STI interventions, accelerate the transfer and commercialization of generated technologies, and strengthen the capability of human resources and institutions to undertake R&D.

Develop and implement programs to build the start-up ecosystem. The government will prioritize the promotion of innovation and entrepreneurship, the creation of an enabling business environment for startups, and allowing more foreign participation. Building start-up ecosystems will be developed in pilot areas in the Bicol Region where start-up communities are beginning to thrive, like Naga City and Legazpi City.

Ensure sustainable supply of competitive, creative, and skilled workforce

Foster creative industries. The RDC will support the Department of Trade and Industry in leading the formulation of the Regional Creative Industries Development Plan, Regional Creative Industries Investments Priority Plan, and in undertaking road-mapping efforts for the different identified creative sectors under the nine domains mentioned in the Philippine Creative Industries Development Act of 2022.

Spearhead active promotions of tourism, culture, and creative

industries. The Regional Committee on Culture and Values, in coordination with the Department of the Interior and Local Government, will push for the establishment of a local culture and arts council, which shall promote & develop the locality's creative industries. Further, the RCCV will mobilize all stakeholders of the creative industry, particularly the performing arts domain, to participate in the celebration of the Philippine Creative Industries Month every September of every year to promote the goods, products, and services of the Philippine creative industries, and to raise awareness on their role in nation-building and socioeconomic advancement. This will harness the creative industries to increase positive perception of tourism destinations and build the distinctly Filipino and Bicolano brand of tourism and culture.

Establish a Creative Educational Plan in partnership with the private sector and the academe. The DepEd and CHED will support and develop relevant programs and provide scholarships to deserving students enrolled in programs and courses related to creative industries. The TESDA will also provide technical and vocational training through scholarship programs and continuous education. Regional counterpart of the Creative

Industries Development Council will provide technical and financial assistance to providers of non-formal learning modalities. Creative industries will provide for an inclusive environment for creative freelancers and creative workers to have access to sustainable and dignified work in the industries (*See Chapter 10*).

Provide appropriate funds to educational institutions that will revise or develop new curricula to address learning gaps. The DepEd, CHED, and TESDA will continue to extend incentives to academic institutions that provide funds and grants for the research of their students and faculty on the development and promotion of the services sector.

Strengthen collaboration with the private sector in mentoring programs; the promotion of science, technology, engineering, entrepreneurship, arts, and mathematics careers; and interventions to build talent in differentiated services. This will increase financial, digital, and cybersecurity literacy; and develop entrepreneurial and creative skills from early schooling by revising curricula (including the inclusion of mandatory basic computer education, introduction of relevant electives, and/or micro-credentials across courses) to support IT-BPM upgrading.

Outcome 3: Inter-sectoral linkages enhanced

Facilitate physical connectivity (aviation, shipping and maritime, and land) and convenience to move people and goods. Increase access to tourist destinations through an improved and sustainable transportation network, and digitalization of tourist services to increase yields from higher spending and length of stay in a wide range of destinations (*See Chapter 13*).

Promote digitalization in transport and logistics to lower costs. Increase utilization of technology in logistics processes to improve coordination among stakeholders. Expand the participation of the industry players in the modernization of existing airports, ports, and land transport terminals to reduce overall transportation costs and shipment delays (*See Chapter 13*).

Increase internet speed, coverage, and network. Expand fiber-optic, broadband, and 5G networks in priority areas identified by industries such as: IT-BPM enterprises, clustered tourism and retail facilities, ports, airports, transport terminals, logistics facilities, and creative

industries (*See Chapter 13*).

Use direct access to all satellite systems (whether fixed, mobile, international, or domestic) to connect local businesses and tourism sites with their developing markets and to build resilience.

Legislative Agenda

The following are the priority legislative agenda that will support the outcomes to reinvigorate the services sector.

Table 9.2 Legislative Agenda to Reinvigorate Services

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Amend RA 10372 amending the "Intellectual Property Code of the Philippine"	This aims to commercialize technologies and creative industries and will enhance attractiveness of the Bicol region as an investment destination that places high value on intellectual property creation, protection, utilization, and commercialization.	DTI and Intellectual Property Office of the Philippines (IPOPHL)
Open Access in Data Transmission	This will strengthen value chain linkages in the industry and services sectors and facilitate the realization of full potential of e-commerce and digital trade.	National Telecommunications Commission (NTC)

10

**Advance Research and
Development, Technology,
and Innovation**



Advance Research and Development, Technology, and Innovation

The new normal has opened opportunities and increased the demand for R&D, technology, and innovation for better connectivity, seamless delivery of social services, and reduced poverty. R&D involves creative work undertaken systematically to produce knowledge that can be used to generate new technologies and innovations. The Innovation ecosystem refers to the “economic...dynamics of the complex relationships...between actors or entities whose functional goal is to enable technology development and innovation.”²²

This chapter discusses the priority strategies to: (a) advance RDI from knowledge creation to commercialization of R&D products; and (b) reinforce the innovation and entrepreneurship ecosystem. The strategy framework sees RDI generation as a continuum encompassing theoretical conception through basic research, technical invention, and commercial use.²³ It is perceived to drive future growth and prosperity through an economic transformation that would reinvigorate job and income generation.

Assessment and Challenges

Assessment

To accelerate technology transfer, commercialization, and utilization, the Bicol Region (a) implemented the Science for Change Program (S4CP), the Small Enterprise Technology Upgrading Program (SETUP), Philippine Startup Development Program, Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT), and other programs focused on the empowerment of MSMEs; (b) enhanced education curricula on science, technology, engineering, agriculture, and mathematics (STEAM); and (c) established niche R&D centers and innovation hubs, among others. The Bicol

Region, however, still needed higher levels of knowledge and innovation outputs in terms of the number of patents and intellectual property rights and published scientific and technical journals. This could be attributed to the low institutional support for RDI in terms of government spending, RDI human capital, and RDI linkages and ecosystems.

Challenges

The critical challenges affecting the sector are as follows:

Strengthening institutional support for RDI in terms of funding. In the past

²² Jackson, D. (2011). What is an innovation ecosystem? https://erc-assoc.org/sites/default/files/download-files/DJackson_What-is-an-Innovation-Ecosystem.pdf, Accessed December 5, 2022.

²³ NEDA Philippine, Development Plan 2023-2028, 2022.

years, RDI was outside the priorities in investment programming and budgeting among regional line agencies (RLAs) and SUCs. The RDI community has been clamoring for a higher budget allocation for RDI, especially for logistical and infrastructure support such as laboratories, testing facilities, R&D centers, and innovation hubs. On average, only about two to five percent of the total agency and SUC budget allocation under the General Appropriations Act (GAA) was allotted to R&D initiatives. The lack of sufficient funding support and the unaddressed barriers to innovation contributed to the weak RDI culture in the region.

The 2022 Global Innovation Index (GII) ranked the Philippines 75th in gross expenditure in research and development (GERD). It stands at 0.32 percent, considerably lower than the global average of 2.04 percent and the one percent benchmark recommended by the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

The government's share of the total R&D expenditure is 39 percent, while the private sector is 61 percent.²⁴ Across regions, Bicol ranked 11th in terms of R&D intensity at 0.10, the ratio of regional R&D expenditures in the areas of agriculture, environment, health, energy, and others to the GRDP in 2018.²⁵

Increasing the number of human capital engaged in RDI. Weak innovative and entrepreneurial culture has resulted in the inadequate number of Bicolanos

interested and engaged in STEAM. The government enhanced the science and technology education curricula. It provided scholarship grants and subsidies through the Junior Level Science Scholarship Programs and Undergraduate Programs under RA 7687 and 10612. However, *brain drain* and underemployment remain as challenges in mobilizing the innovation system. In 2018, the Bicol Region ranked 11th in terms of number of R&D personnel headcount (full-time equivalence²⁶) in all sectors, with 2,264 personnel. Based on a survey conducted by DOST, the majority of the R&D personnel in the region are researchers coming from public HEIs. Bicol also ranked 11th across regions in terms of the number of researchers.²⁷

The lack of employment and income-generating opportunities on STEAM has pushed skilled and locally-trained scientists, engineers, and researchers to change their path towards more lucrative careers and disciplines or seek employment overseas. Efforts to address this have been made, such as the *Balik Scientist Program* and *Innovations for Filipinos Working Distantly* from the Philippines; however, more is needed to flourish the innovation ecosystem.

Strengthening industry-academe-government linkages that could facilitate collaborative RDI. The low levels of knowledge and innovation outputs may be attributed to the weak interlinkages between and among the innovation ecosystem players. The innovation ecosystem comprises two distinct but

²⁴ Dutta, S., et.al, supra note 4.

²⁵ DOST, Compendium of Science and Technology Statistics, 2021 Ed., ISSN 2244-3614

²⁶ Ibid. R&D Personnel in the country is measured in terms of full-time equivalence or the ratio of working hours actually spent on R&D during a specific reference period (usually a calendar year), divided by the total number of hours conventionally worked in the same period by an individual or group.

²⁷ Ibid.

largely separated economies: the research economy, driven by fundamental research, and the commercial economy, driven by the marketplace.²⁸ The elements of the innovation ecosystem²⁹ (a) human capital and education, (b) research and knowledge creation, (c) knowledge transfer, (d) start-ups and spinoffs, and (e) collaboration have yet to take off in the Bicol Region.

The Philippines ranked 64th in the 2022 GII on University-Industry Collaboration on R&D. Most universities perceive assisting companies outside their core mission.³⁰ Further, Bicol ranked 10th in terms of private sector R&D expenditure in 2018 spending about PHP658 million.³¹

Led by the DOST Region 5, the RRDIC was established under the RDC to serve as the governing body of the R&D initiatives in the region. It is currently composed of nine RLAs, ten HEIs, and three local consortia: BCAARRD, Bicol Council for Industry, Energy, and Emerging Technology Research and Development (BCIERRTRD), and Bicol Council for Health Research and Development (BCHRD). The RRDIC has yet to provide and implement the procedure for proposal evaluation and endorsement to the RDC on all government-funded R&D projects of the consortia, SUCs, government agencies, and other institutions in the

region to ensure that research outputs are converted into tangible tools that the community can use for commercialization and utilization.

Given the new policy directions on innovation and the close link between R&D and innovation, the RRDIC was strengthened and expanded to integrate, harmonize, and coordinate research and innovation efforts in the region.

The RRDIC will be guided by the Pagtanaw 2050, which the Bicol RDC supported through RDC Resolution No. 4-45, s. 2022. Pagtanaw 2050 which translates to “Looking Ahead,” is the first inter-disciplinary and trans-disciplinary project on Philippine-focused STI Foresight and Strategic Plan. Its main goal is to chart a strategic path by anticipating the factors influencing the development of the Philippines’ scientific capital in the years leading up to 2050. It serves as a planning device for achieving concrete goals and designing strategic plans that transcend political periods, aiming for inclusive growth, sustainability, and competitiveness in STI. It suggests significant drivers of change and provides insights and reflections on plausible STI development paths that will impact the Filipino people’s aspirations and the nation’s development towards 2050.

28 Jackson, D., *supra* note 1.

29 USAID STRIDE, Philippines Innovation Ecosystem Assessment, 2019. <https://pdf.usaid.gov/>, Accessed December 5, 2022.

30 Dutta, S. et. Al, *supra* note 3.

31 DOST, *supra* note 4.

Targets

The targets by the end of plan period are:

- (a) basic R&D and knowledge creation strengthened;
- (b) market-driven and customer-centered R&D advanced;
- (c) technology adoption, utilization, and commercialization scaled up; and
- (d) innovation and entrepreneurship

accelerated.

The following year-by-year and end-of-plan targets indicate the level or numbers that the government seeks to attain within each of the four outcomes.

Core Indicators

Table 10.1 presents the indicators and targets to Advance R&D, Technology, and Innovation.

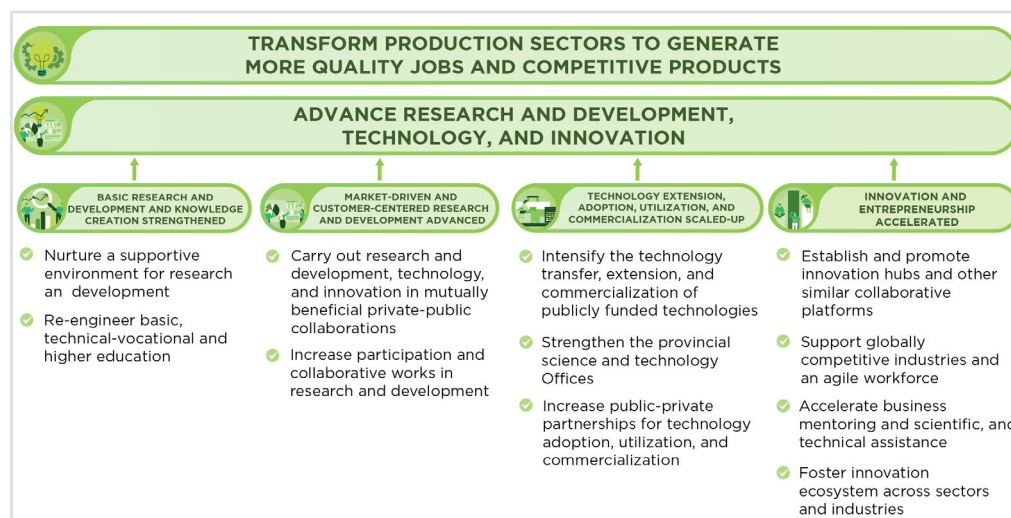
Table 10.1 Core Indicators to Advance R&D, Technology, and Innovation

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Number of university-industry collaborations on R&D [i.e., MOU, partnership agreements]	2 (2018)	3	3	3	3	3	3	HEIs, SUCs, CHED, and Consortia Reports	CHED, DOST, BCAARRD, BCIEERD, BCHRD, SUCs
Increased number of Researchers with Full-Time Equivalent	2,264 (2018)	Increasing						DOST Report	DOST, SUCs
Number of established innovation hubs, centers of excellence, and niche R&D centers	3 (2022)	1						DOST and SUCs Reports	DOST, SUCs
Increased number of Technology Business Incubators	1 (2021)	31	Increasing					CHED, DOST, DTI, SUCs, DICT Reports	DOST
Percentage increase in public R&D products adopted by users and/or commercialized	2 (2022)	Increasing						DOST, DTI, and IPOPHL Reports	DOST, DTI, IPOPHL
Number of start-ups increased	54 (2022)	Increasing						DOST, DTI, DICT Reports	DTI
Number of qualified technology or creative start-ups coached and mentored	1 (2021)	Increasing						DOST, DTI, DICT Reports	DOST, DTI
Number of incubators increased	1 (2021)	Increasing						DOST, DTI, DICT Reports	DOST
Number of accelerators increased	54 (2022)	Increasing						DOST, DTI, DICT Reports	DOST

Strategy Framework

The strategy framework illustrates the and innovation generation continuum. areas of focus in the R&D, technology,

Figure 10.1 Strategy Framework to Advance Research and Development, Technology, and Innovation



Strategies

Outcome 1: Basic R&D and knowledge creation strengthened

R&D covers basic research, applied research, and experimental development. Basic research increases the ‘knowledge base’ available to companies and other participants in the economy to source innovative information.³²

Nurture a supportive environment for R&D. To reshape the region’s weak RDI culture and productivity and address the barriers to innovation, the RRDIC will harmonize collaborative efforts and networks and create a conducive RDI environment. This will be done by formulating the Harmonized Regional Research, Development, and Innovation Agenda based on the priorities in the RDP and the National Innovation Strategy Document (NIASD) and pushing

for an efficient incentives system for RDI. Alignment of PAPs in the RDI agenda and investment programs of all research consortia and institutions will enable the provision of support facilities and funds for RDI.

Laboratories, science, and technology research facilities, KIST parks, university science and technology parks, technology business incubators, and other infrastructure will be established and strengthened. The Bicol Science and Technology Centrum (BSTC), the oldest regional science centrum in the country, is a joint undertaking of the DOST Region 5, the PCICEETRD, and the City Government of Naga will be revived and improved to further ignite the interest

³² NEDA, supra note 2.

and encourage the passion of students in STEAM and innovation.

Investments in information, IEC activities on call for R&D proposals to SUCs, MSMEs, researchers, engineers, and scientists, rewards and incentive mechanisms, RD Lead Program and other capacity building activities for R&D personnel and research institutions, PPP projects on RDI, the establishment of centers of excellence and innovation hubs, and other similar collaborative platforms will be pursued (*See Chapters 8 and 9*).

Re-engineer basic, tech-voc, and higher education. Among the innovation priority areas are learning and education, and health and well-being. Achieving a proactive, smart, and innovative society starts with accelerating human capital development. Investments in improving the teaching and the learning environment, learning equipment and platforms, continuing professional and learning development, curriculum design, and pedagogy, among others, will be ensured. Innovations that ensure affordable, smart, equitable, quality, responsive, accessible, and comprehensive healthcare, and total well-being services, products, and solutions will likewise be prioritized to improve learning and development.³³

The DepEd, TESDA, and CHED will pursue programs that (a) trigger drive for curiosity and discovery; (b) cultivate critical thinking, growth mindset, communication, and decision-making skills; (c) enable to adapt to the uncertainties of the environment; and (d) develop more trusting and more

collaborative efforts (*See Chapters 4 and 6*). Further, through the DOST Science Education Institute, there will be more scholarship opportunities for undergraduate and graduate studies for science and technology manpower development.

The HEIs and SUCs will invest in building a well-organized innovation and knowledge creation system through strengthened R&D and extension services. The implementation of the HEIRIT will be enhanced. They will promote an Industry 4.0 skills framework that maps out jobs, career pathways, occupational skills, micro-credentialing, and reskilling options. Further, strategic foresight and futures thinking will be incorporated in developing RDI technologies. There will be compensation for the time spent on industry research and consultation by faculties of SUCs. Programs that will give opportunities for aspiring researchers to receive start-up support and ensure that research outputs are supported for patenting and commercialization within HEIs will be implemented.

Aggressively increase expenditure in R&D and its commercialization.

Alignment of PAPs for RDI with the industry needs and priorities will help in ensuring that the priority RDI activities are evaluated and included in the budget proposals of agencies and SUCs through the RDC Investment Programming and Budgeting Process, or funded through grants, PPP, and private sector funding, among others. This will increase expenditure on R&D and its commercialization.

³³ Ibid.

Outcome 2: Market-driven and customer-centered R&D advanced

To ensure sustainable technology commercialization, government-funded research in universities and research institutes will shift towards a market- and demand-oriented approach in responding to market failures or demand issues in the private sector.

Carry out R&D, technology, and innovation in mutually beneficial private-public collaborations.

The Philippine Innovation Act fosters innovation as a vital component of national development and sustainable growth. The RRDIC, the three research consortia, and other collaborative groups will support and recognize collaborative work of public researchers and private firms on RDI. To operationalize this, the government, in coordination with the private sector, will implement the S4CP.

The project was created to accelerate STI in the country to keep up with the developments in our time, wherein technology and innovation are game changers. The proposed establishment of the S4CP Regional Center will facilitate the implementation of the four components of the S4CP in the region, namely: (1) Niche Centers in the Region for R&D or NICER for R&D; (2) R&D Leadership Program or RDLead; (3) Collaborative R&D to Leverage Philippine Economy or CRADLE; and (4) Business Innovation through S&T or BIST for Industry Program. The S4CP Regional Center is expected to widen access, enhance visibility and provide more opportunities to Bicolano scientists/researchers. It will further promote local research projects in the region by establishing a showroom for RDI initiatives in the region.

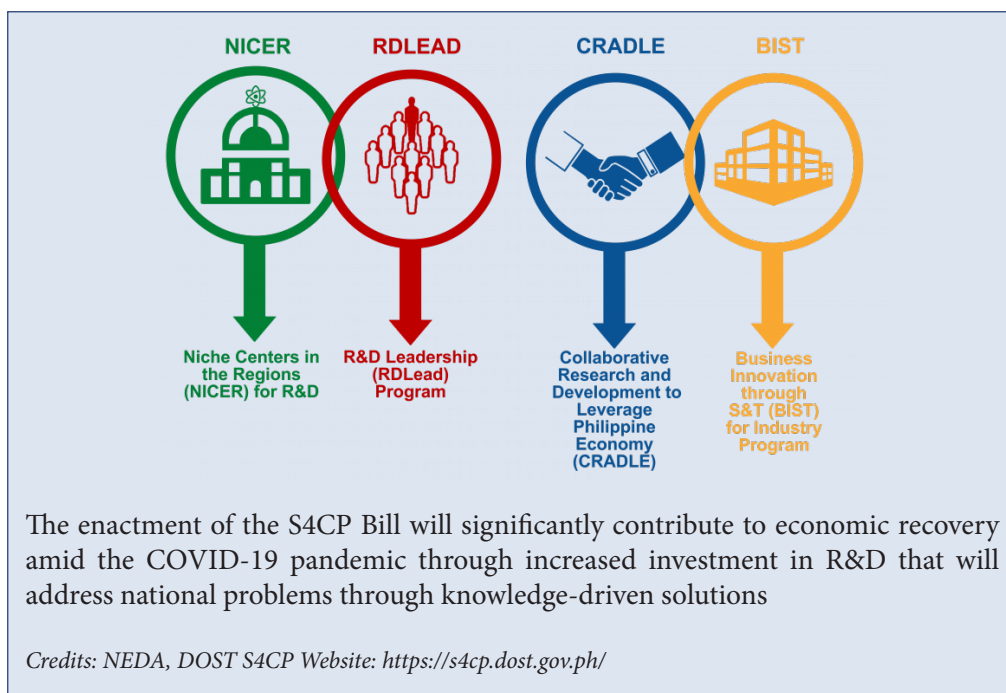
Box Article10.1

R&D investments pushed through S4CP

As an initiative to sustain innovation efforts, the Bicol RDC passed Resolution No. 4-37, Series of 2021, ratifying an earlier RDC resolution by referendum supporting the SC4P Bill for endorsement to the Congress and Senate.

The SC4P Bill, proposed both in the House of Representatives and Senate, will substantially increase investment with initial funding of PHP10 billion to be taken from the GAA of the preceding year. The annual budget shall double yearly until it reaches two percent of the GAA budget. The Philippines currently has 0.16 percent GDP Expenditure on R&D. A developing country should have at least one percent according to the United Nations Educational, Scientific, and Cultural Organization.

The S4CP will accelerate R&D programs for capacity building and industrial competitiveness through the: (1) NICER for R&D; (2) R&D Leadership Program; (3) CRADLE; and (4) BIST for Industry Program.



Integrate creative arts and social sciences with science and technology. The government will support the active participation of human resources from the creative arts and social sciences to widen the perspective on the experience and social application of technology and innovation and contribute to the dynamic process of creating value and competitive advantage of RDI products. The RRDIC will promote and coordinate the development of technology parks, centers of creative excellence and innovation, and creative talent hubs; and improve shared services facilities.

The government will facilitate the implementation of the Philippine Creative Industries Development Act of 2022 particularly in providing financial support to research projects addressing the industry needs through science and technology interventions, accelerating the transfer and commercialization of generated technologies, and strengthening the capability of human resources and institutions to undertake research and development. Research grants will be availed of by government research and

academic institutions as well as local companies and start-ups, subject to the evaluation and approval (See Chapters 8 and 9).

Increase participation and collaborative works in R&D. The private sector will contribute to government RDI by: (a) guiding researchers and scientists on consumer trends and market system requirements; (b) addressing market challenges and opportunities; (c) leveraging private investments in STI activities; (d) seeking solutions to broad national and regional challenges such as climate change, public health, social protection, green and blue economies, energy efficiency, administration of justice, and ensuring peace and security; (e) investing or locating knowledge, science and technology parks, incubators, and entrepreneurship cells; and (f) improving academia-industry linkages.

The private sector will be encouraged to share its observations, knowledge, and insights on people's motivations and preferences, and product trends to

help improve R&D products in terms of function, aesthetic impressions, and

market value. Feedback mechanisms will be put in place.

Outcome 3: Technology extension, adoption, utilization, and commercialization scaled-up

The development from a research insight to a widely distributed product requires a good balance of public funds and private investment; public sector research, extension programs, and private R&D; and scientific, technology management, product development, diffusion, and commercialization skills.³⁴

Intensify the technology transfer, extension, and commercialization of publicly funded technologies.

The Bicol RRDIC will establish the Bicol Knowledge, Innovation, Science and Technology Information System and Database, a compendium of proposed, ongoing, and completed RDI projects that will minimize duplication of RDI initiatives and open opportunities for collaboration, extension, and commercialization. It will also serve as a platform for public research institutions, SUCs, and other RDI stakeholders to pitch their R&D products and technology developed to successfully commercialize their technologies. Programs that involve private sector participation will be implemented through the promotion, utilization, and commercialization of investments in these products.

Simple but effective modes of technology transfer of commercially ready publicly funded R&D outputs from qualified private entrepreneurs and enterprises will be implemented (*See Chapter 8*). This will further capacitate the research and extension offices of SUCs and the technology transfer and business development offices. The RRDIC will

establish a framework that will standardize the procedures for R&D institutions and SUCs for valuing their intellectual property assets.

Provide support and incentives for IP management.

The government, through the DOST and the Intellectual Property Office of the Philippines (IPOPHL), will accelerate programs to increase awareness among policymakers, private sector, university researchers, and the public of the value and contribution of innovation and Intellectual Property to economic and social transformation.

The Bicol Knowledge, Innovation, Science and Technology Information System and Database will include a registry of IP assets to facilitate monitoring and minimize duplication of technologies in the region. It will strengthen a network of IP units delivering timely, high quality, and accessible IP management services that benefit technology and creative startups. It will improve the capacity of the private sector to create, protect, utilize, commercialize and enforce their IP rights. There will be opportunities to provide MSMEs with patent mapping and analytics tools that identify trends and gaps in the technological landscape, which can be used as a basis for strategic direction and business decisions for pursuing R&D and investments in technology development.

Strengthen the provincial S&T Offices.

The DOST Region 5 will fast-track the implementation of Republic Act 11914 or the Provincial Science

³⁴ Ibid.

and Technology Offices (PSTO) Act. In accordance with the RDP, the PSTOs will identify the STI needs in the provinces, implement DOST programs that will benefit rural and GIDAs, and develop the institutional linkages among provincial offices, academe, and LGUs.

There will be *Sangguniang Panlalawigan* resolutions enjoining all LGUs to facilitate the implementation of the Provincial Science and Technology Plan. This local legislation will seek to ensure the efficient delivery of the functions of the Provincial Science and Technology Offices pursuant to the Provincial Science and Technology Office Act. Further, it will facilitate the implementation of the Provincial S&T Plan, the adoption of appropriate technologies by MSMEs, and the dissemination of STI and RDI, among

others.

The PSTOs will implement and monitor the various technology promotion and commercialization programs such as, but not limited to, the SETUP and Community Empowerment through Science and Technology. They will promote the adoption of appropriate technologies by MSMEs to improve their operational efficiency and increase productivity, and harness the results of scientific research and innovation to produce new and competitive products and services in potential investment areas in the locality. For instance, the Province of Albay is the regional center of the Bicol Region with several potential investment areas for technology extension, adoption, utilization, and commercialization.

Table 10.2 Potential Investment Areas by Locality in Albay

PROVINCE/LOCALITY	POTENTIAL INVESTMENT AREA
Tiwi	Ceramics
Daraga	Abaca Gifts and Housewares
Camalig	Processed Food (<i>Pinangat</i>)
Guinobatan	Processed Food (<i>Longganiza</i>)
Jovellar	Abaca Gifts and Houseware
Legazpi City	ICT
Oas	Processed Food (<i>Rice Puto</i>)
Tabaco City	Cutlery
Manito	Lasa Gifts and Housewares
Sto. Domingo	Processed Native Foods
Libon	Seagrass Gifts and Housewares
Malilipot	Abaca Gifts and Houseware
Polangui	Processed Food (<i>Kalamay-Panucha</i>)
Bacacay	<i>Karagumoy</i> Gifts and Houseware
Ligao City	Coco-based processed Food
Malinao	Abaca Gifts and Houseware
Pio Duran	Processed Fish
Rapu-Rapu	Seaweeds

Source: NEDA, Bicol Investment Promotion Guide

The PSTOs will lead the promotion of digital transformation and transfer of technologies and services to enhance the technology-livelihood enterprises in rural areas. Further, the LGUs will pursue a seamless delivery of social protection services to vulnerable populations, especially in GIDAs (*See Chapter 15*).

Increase public-private partnerships for technology adoption, utilization, and commercialization. Through the Innovative Start-up Act, the government will provide benefits and incentives for start-ups and start-up enablers. Start-ups are enterprises engaged in innovative business models aiming to solve pressing problems in society, usually using scalable technologies. On the other

hand, spin-offs are start-ups created by a parent organization, usually by large corporations. Promoting the growth and competitiveness of MSMEs, start-ups, and spin-offs are key to national development.

Increase venture capital investments. The government will complement angel investing initiatives and start-up enablers. The private sector will provide support for startup technology innovators through “angel” investors (i.e., wealthy individuals with experience in starting up new companies), and venture capital firms specialized in early-stage or “seed” investments. For instance, the potential of overseas Filipino remittances will be effectively harnessed and channeled into productive venture capital investments.

Outcome 4: Innovation and entrepreneurship accelerated

A strong culture of innovation and entrepreneurship is vital in creating high-quality jobs and competitive products and services. This entails a firm policy, regulatory environment, and new mechanisms to support technopreneurs, start-ups, spin-off companies, and MSMEs.

Establish and promote innovation hubs and other similar collaborative platforms. The government will establish centers of excellence and innovation hubs to facilitate knowledge and technology sharing. Industry-academe centers and the RIIC will promote digital transformation as an essential factor in innovation and entrepreneurship that can change production and distribution processes, reduce the cost of doing business, facilitate cross-border trade, and provide flexible access to considerable computing power without investing in physical infrastructure. For instance, the

Province of Camarines Norte is known for its queen pineapples, producing more than a hundred thousand metric tons for both domestic and foreign consumption. Hence, the Camarines Norte State College (CNSC), in collaboration with the DOST- National Research Council of the Philippines, Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development, DOST Region 5, and the BCARRD established the Queen Pineapple Niche R&D Center to further boost the production of the country’s “sweetest” pineapple variety. Moreover, the CatSU, in collaboration with DOST Region 5, established the Abaca Technology and Innovation Center.

An established mechanism will be set to monitor and enhance the operations of existing innovation hubs and niche R&D centers such as the Queen Pineapple Niche R&D Center, Pili Niche R&D Center, Bicol Regional Food Innovation

and Commercialization Center, Abaca Technology and Innovation Center, and Manufacturing Fabrication Laboratory, among others. Enhancement will include innovations in interconnected value chains such as agricultural extension and support services in food, agriculture, forestry, and fisheries. This will help ensure food security and proper nutrition that is affordable, accessible to the communities, and sustainable while empowering local producers.

Support globally competitive industries and an agile workforce. The government will invest more in promoting innovation in globally competitive agri-based and manufacturing industries while supporting the manufacturing and production of green and climate-smart technology products for global markets. This will expand market opportunities for low-carbon technologies and products (*See Chapter 16*).

Pursuant to the Philippine Innovation Act, the NIASD strategies must promote regional innovation that will harness the competitive advantages as well as the existing and potential strengths of the region and provinces. The Province of Camarines Norte is one of the mining and industrial centers in the country and has a comparative advantage in terms of mineral and agricultural resources. It will strengthen the Jose Panganiban Special Ecozone and explore innovation hubs for its mining industry, having been endowed with mineral resources, both metallic and non-metallic, found in commercial quantities such as gold, silver, iron, lead, zinc, bull quartz, and iron. Further, the PSA reported that in terms of volume of production, the Province of Sorsogon has been the biggest producer of pili in the region for several years, i.e., 3,328.29 MT in 2020 and 3,056.49 MT in 2021, giving the province a comparative

advantage in the pili industry.

The Province of Masbate has a comparative advantage in terms of cattle production and power generation from renewable energy sources. RDI on energy will be maximized for low-carbon energy and cleaner, more affordable energy sources.

Embracing Industry 4.0 entails upskilling and reskilling the workforce in the public and private sectors. This would require increasing investments in skill development to deliver outputs on par with the advancements in digital technology (*See Chapter 8*).

Accelerate business mentoring and scientific, and technical assistance. To pursue and leverage innovative and technology-enabled business models, the government will strengthen current mentorship and coaching programs for MSMEs and start-ups to accelerate digitalization and innovation.

Continuing programs such as NC Seminars, the MSME Roving Academy, the KMME, the Small Enterprise Upgrading Program, and the BIST for Industry Program will be strengthened to further infuse an innovative and entrepreneurial spirit. Support will combine financial and technical support for academic and skills training institutions, business incubators, and start-ups.

Innovative and science-based industries will be bolstered by linking MSMEs with start-ups through the continued implementation of the Innovative Start-up Act. For instance, the Province of Camarines Sur, strategically located at the heart of the Bicol Peninsula, may be developed as an investment and innovation business center. Naga City's first innovation project, the Naga City Start-up Ecosystem Development

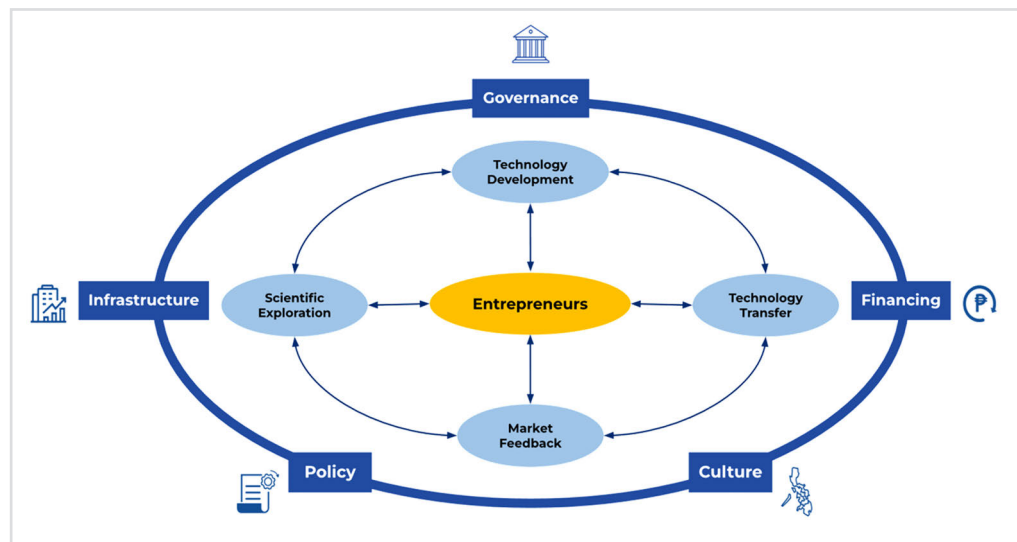
Program may be enhanced and replicated by other localities in the region to promote a culture of innovation and encourage creative thinking and knowledge creation, and dissemination towards expanding and maintaining economic competitiveness.

Foster innovation ecosystem across sectors and industries. The NEDA Region 5, with guidance from the RIIC, National Innovation Council,³⁵ and in collaboration with the RRDIC, will assist in the administration of the Innovation Fund under the Philippine Innovation Act to support the commercialization of publicly or privately funded and domestically developed technologies and innovations in the Bicol Region. IEC activities such as the conduct of National

Innovation Day and regional conferences, formulation and promotion of Regional Innovation and Cluster Policy, and quad media promotion of the *Filipinnovation* Branding will be conducted.

The government is the primary mover in enabling a flourishing innovation ecosystem, hence will spearhead the creation of systems supporting the needs of MSMEs, start-ups, and different innovation actors (Figure 10.2). The private sector will complement this by fostering innovation ecosystem across various sectors and industries. Entrepreneurs are key innovation actors who provide direct and significant contributions to national economic growth.

Figure 10.2 National Innovation Ecosystem Framework



Source: National Innovation Agenda, adapted from the Cyclic Innovation Model by A.J. Berkhout

³⁵ The Philippine Innovation Act mandates the creation of the National Innovation Council, a 25-member policy advisory body in charge of the formulation, development, implementation, and monitoring of the country's innovation goals, priorities, and long-term national strategy.

Legislative Agenda

Table 10.3 presents the priority legislative agenda that will complement and support the strategies to advance R&D, Technology, and Innovation.

Table 10.3 Legislative Agenda to Advance R&D, Technology, and Innovation

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Establishing the Science for Change Program and Appropriating Funds Therefor	The bill seeks to institutionalize the S4C Program of the DOST to address the inadequacies in the field of research and development and to enable the nation to be globally competitive and equipped to provide knowledge-driven solutions and evidence-based responses in resolving the nation's challenges.	DOST
Amending Section 177 and Section 216 of Republic Act No. 8293, Otherwise Known as the Intellectual Property Code of the Philippines, as Amended by Republic Act No. 10372, and for Other Purposes	<p>The bill seeks to amend the following sections of the Intellectual Property Code:</p> <p>(a) Section 177 to consider rampant digital reproduction of copyrightable works; and</p> <p>(b) Section 216 of the IP Code, as amended, addresses increasing concerns about secondary liability and online copyright infringement issues, such as those related to P2P networks and ISPs.</p> <p>This bill considers the right of copyright owners to prevent others from copying, uploading, scanning, digitizing, or distributing their creative work.</p>	IPOPHL
Creating the Pili Research and Development Center	<p>The bill seeks to create the Pili Research and Development Center in the Province of Sorsogon which will be attached to Sorsogon State University.</p> <p>It also seeks to develop the Pili Industry in the Bicol Region, creating for the purpose the Pili Subsidy Fund, and declaring the Province of Sorsogon as the Pili Capital of the Philippines.</p> <p>The Pili Research and Development Center will undertake research and technical studies on the development, production, management, and marketing of pili and its by-products and develop innovative technologies beneficial to the pili industry.</p>	DA, DTI, DOST, DENR, SSU

11

Promote Trade and Investments



Promote Trade and Investments

Over the medium-term, the trade and investment sector remained as one of the region's economic drivers, thus, it is expected to contribute to the country's national growth. A renewed focus shall be given further to the sector to propel the region's position as a major investment destination.

To meet these goals, there is a need to powerfully recharge the trade and investments as motors of job creation, skills development, and poverty reduction through the continued partnerships between and among the public, private sectors, and major social partners.

Assessment and Challenges

Assessment

To further boost the country's trade and investment, the Bicol Region: (1) supported the external trade policy, particularly on the backward and forward linkages to both the domestic and international markets; (2) diversified the products and markets, as well as provided opportunities for the growth of enterprises; and (3) stimulated the production of higher value-added goods and services.

As reported by investment promotion agencies (IPAs), the Bicol Region received the highest share of approved investments (i.e., foreign and Filipino nationals' investments) in the country in the third quarter of 2022, at 35.4 percent, or PHP56.29 billion.³⁶ A year-on-year positive performance in aggregated approved investments is posted for the

Bicol Region (5.7%) in 2021 despite the lingering effects of the COVID-19 pandemic on the domestic economy.³⁷

Data on trade and investments showed that, in 2021, the Bicol Region generated a traded balance of USD478.64 million.³⁸ Moreover, the value of exports in the region in 2021 increased from USD393.65 million in 2020 to USD509.97 million in 2021, and the value of imports increased from USD21.12 million in 2020 to USD31.32 million in 2021.³⁹ In terms of the direction of foreign trade, European countries were the major destinations of the region's exports, while the member countries of the Association of Southeast Asian Nations (ASEAN) were the major origins of Bicol imports.⁴⁰ For 2020, the value of trade with Europe amounted to USD422.95 million, while the value of imports from ASEAN amounted to USD28.73 million.⁴¹

36 Total Approved Investments of Foreign and Filipino Nationals by Region at Current Prices, PSA. <https://psa.gov.ph/foreign-investments-press-releases/tables>.

37 Report on Regional Economic Developments in the Philippines 2021, BSP. https://www.bsp.gov.ph/Media_And_Research/Report%20on%20Regional%20Economic%20Developments/REDP_2021.pdf

38 Value of Export and Imports by Ports, PSA.

39 Ibid.

40 Ibid.

41 Ibid.

Challenges

Lack of champions at the regional level that will promote trade and investments. There is a need to identify regional champion/s that will promote Bicol products and services both at the local and national levels. This will complement efforts to link sectors with more markets to improve their competitiveness.

Inadequate and inefficient provisions of key infrastructures affect the business environment. Inadequate equipment facilities and support infrastructure result in delays in the movement of goods and services. For example, an underdeveloped port and ancillary facilities in Matnog Port resulted in long queues of cargo trucks to transport goods. Poor road conditions impede mobility. Another challenge in the business environment is the high cost of electricity in the region, which adversely affects the cost of other utilities (*See Chapter 13*).

High standards that must be met by exporters. The country's ability to meet the standards in terms of consumer health and safety, environmental protection, and overall product quality remains a challenge, thus efforts to support local firms to venture into new export markets, as well as the identification of suppliers to lead firms in Global Value Chains.

Lack of policies on timely interventions and preventive measures for distressed firms. There are several reasons why a firm can become financially distressed in a globally competitive market. These include declining firm performance due to a change in the competitive landscape

or the firm being negatively affected by an economic downturn. Firm closure is inevitable if the signs of firm distress are not recognized, leading to job loss as well as the wastage of scarce local entrepreneurial capital. The survival of commodities with strong domestic sectoral and labor market linkages is imperative, especially where the Bicol Region has clear comparative advantages.

Weak ability to develop and retain skilled workers. The Philippines ranked 80th out of 113 countries, down 10 spots from 2021, in the 2022 Global Talent Competitiveness Index of Institut Européen d'Administration des Affaires (INSEAD). This may undermine the country's first-mover advantage in Information Technology-Business Process Outsourcing commercial services, and affect its ability to secure high value-added niches in intermediate services.

The institution of major Foreign Direct Investment (FDI) reforms in 2022 is expected to significantly improve the investment environment, but fundamental problems with red tape, especially at the level of LGUs; insufficient coordination of investment promotion efforts; and scarcity of local suppliers that are able to deliver the necessary quality and scale; and high costs of doing business due to inadequate and inefficient provision of key infrastructure (e.g., electricity, transport networks, telecommunications) remain. These issues need to be addressed to raise the attractiveness of the Bicol Region as an FDI destination relative to other provinces with similar endowments and levels of development.

Targets

The Bicol RDP 2023-2028 aims to increase the merchandise exports in the region, increase the services exports, increase the number of marketing and promotional

activities of Bicol goods and services, and increase the number and investments of registered stocks/ non-stock corporations.

Core Indicators

Table 11.1 presents the indicators and targets to promote trade and investments.

Table 11.1 Core Indicators to Promote Trade and Investments

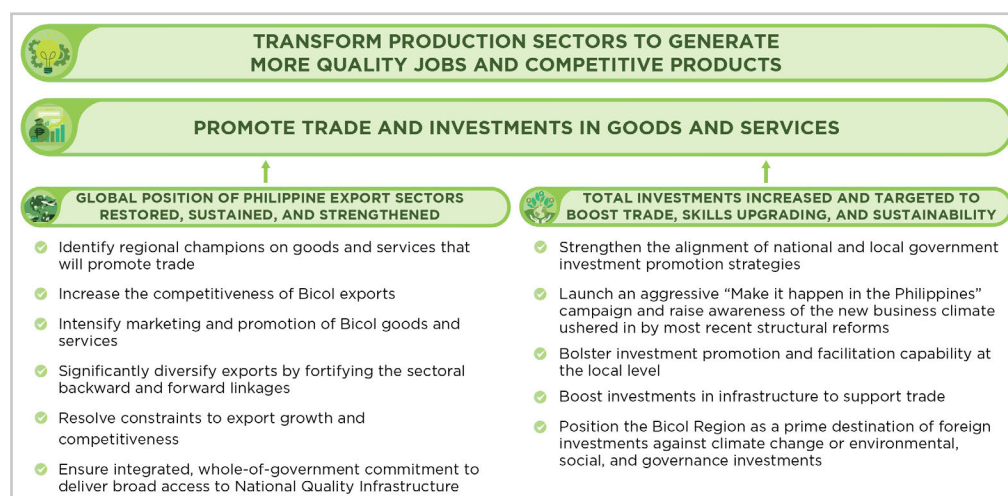
INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Number of Exporters Assisted	64 (2022)	65	66	67	68	69		PSA International Merchandise Trade Statistics	DTI
Marketing and promotional activities (domestic trade fairs conducted and participated) of Bicol goods and service increased	7 (2022)	8	10	12	14	16	18	PSA International Merchandise Trade Statistics	DTI
Number of Registered Stock / Non-Stock Corporations and Partnerships increased	755 (2021)	900	1,000	1,200	1,400	1,700	20,000	SEC Registered company	SEC
Investment of Registered Stock / Non-Stocks Corporations and Partnerships increased	PHP 929.35 million (2021)	PHP 1.2 billion	PHP 1.5 billion	PHP 1.75 billion	PHP 2.0 billion	PHP 2.5 billion	PHP 3.0 billion	SEC Registered company	SEC

Strategy Framework

The strategy framework illustrates the areas of focus in trade and investments. There are two desired outcomes: (1) the global position of Philippine export sectors is restored, sustained, and strengthened; and (2) total investments are increased and targeted to boost trade, skill upgrading, and sustainability. A renewed focus will be given to the survival, growth,

and expansion of local firms in the export and domestic markets to drive productive employment and increase incomes. On the other hand, FDI will be harnessed as driver of export growth, a source of vital technology, and a critical enabler of the country's long-term climate action. Figure 11.1 presents the Strategy Framework to Promote Trade and Investments.

Figure 11.1 Strategy Framework to Promote Trade and Investments



Strategies

The following strategies will help achieve the desired outcomes and address the challenges presented above:

Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened

Identify regional champions on goods and services that will promote trade. The DTI will identify sector champions as well as private partners to promote trade, goods, and services in the region.

Increase the competitiveness of Bicol exports. Reforms will be introduced to minimize the cost of production and delivery of goods and services. Bicol exporters will be encouraged to continue improving their products through product development and packaging, and at the same time, efforts to ease the cost of doing business will continue.

Intensify marketing and promotion of Bicol goods and services. The DTI will intensify the promotion of high-quality Bicol goods and services to increase their presence in the international market. Promotion campaign and marketing strategies will include participation in domestic and international trade fairs and sustained brand awareness campaign programs geared towards building partnerships to feature Bicol products.

Moreover, the establishment of the regional counterpart of DTI – Export Marketing Bureau, that can cater to trade-related queries and the needs of local exporting firms will be explored. A more readily available unit/office will encourage businesses to interact with the government at a more local level.

Diversify exports by fortifying the

sectoral backward and forward linkages. The shrinking export product space will be transformed by identifying and supporting local firms that have triggered roles in linking upstream and downstream sectors in the economy. The agri-processing sector, for instance, is populated by these types of firms. Similarly, the region will support the trade policy, particularly on the backward and forward linkages to the domestic and international markets, stimulate the production of higher value-added goods and services, diversify products and markets, and provide opportunities for the growth of enterprises.

The servicification of manufacturing and agriculture has now been known to increase the competitiveness of exports. The Bicol RDC will support the expansion of government agencies' assistance and work towards implementing these in the region, such as DTI's Shared Services Facilities to include common business services (e.g., marketing, digitization, administrative and finance, promotions, logistics, distribution, assistance in consolidation), especially for MSMEs and cooperatives with potential export transitions. On value chain interventions, focus will be given to organization development and brokering multisector partnerships to capacitate smallholders and make value chains inclusive.

Resolve constraints to export growth and competitiveness. The Bicol RDC will pass resolutions to support any anti-competitive policies, including the exporter's issue on the high

cost of doing business. The government will ensure tight collaboration with LGUs, with a special focus on the country's Anti-Red Tape Authority (ARTA), specifically on encouraging them to automate their business permitting and licensing through Electronic Business One-Stop Shops (E-BOSS).

In addition, specific sectors will be identified and prioritized at the regional and local levels to address market competition issues.

Ensure an integrated, whole-of-government commitment to deliver broad access to the National Quality Infrastructure (NQI). The Bicol RDC will support the passage of the NQI. This will complement efforts to address institutional fragmentation and the adoption of harmonized quality infrastructure, thus ensuring the efficient flow of goods and services domestically and internationally (*See Chapter 13*).

Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability

Strengthen the alignment of national and local government investment promotion strategies.

The government will establish the Inter-Agency Investment Promotion Coordination Committee under the Amended Foreign Investments Act (RA 11647) to integrate all the promotion and facilitation efforts, encourage foreign investments, and make the new investment environment credibly improved for investors. The regional counterpart of the said Committee will be created to develop interventions in the regional context. The partnership between the LGUs, and the DILG's Local Economic Development and Investment Promotion Office (LEDIPO) will be strengthened to facilitate local economic investments. The establishment of a comprehensive local database of exporting firms will be pursued. In identifying investment priority areas, a firm-level approach will be emphasized to identify the needs of exporters so that support programs implemented by agencies such as the DTI will properly address these needs.

Launch an aggressive Make it Happen in the Philippines

campaign to raise awareness of the new business climate ushered in by the most recent structural reforms.

The government will support the major FDI reforms in 2022. An all-out campaign is needed to bring across the message that a new FDI regime exists, making the country truly open for business. The government will likewise maximize the opportunities opened up by the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act, the amended Foreign Investment Act (RA 11647), the Retail Trade Liberalization Act (RA 11595), and the Public Service Act (RA 11659), through local and international user-friendly information dissemination programs and coordinated communications campaigns done in collaboration with the private sector and social partners.

Bolster investment promotion and facilitation capability at the local level.

The role of domestic investor firms, especially in rural areas, in attracting foreign partnerships for greenfield investments will be strengthened. To support the thrust towards regional development, there is a

need to reinvigorate investment promotion in the regions to bring investments to the countryside. The DTT's initiatives, such as the Investment Promotion Units Network will likewise be continued to increase the competitiveness and efforts of the LGUs to attract more businesses as well as to catalyze the stepping up of the less developed areas.

Boost investments in infrastructure to support trade.

Investments to be prioritized will include the establishment of new air and sea links, renewable energy development, better trade facilitation arrangements, and agribusiness development. The PPP transaction arrangements will be explored in the areas of agriculture and fisheries sectors, as well as in developing water

utility infrastructure projects such as source development.

Position the Bicol Region as a prime destination for foreign investments against climate change or environmental, social, and governance (ESG) investments. The Bicol RDC will support innovative schemes, such as payment for environmental services (PES), to support ESG investments in the region through collaboration among the public sector, private sector, academe, and other social partners in building transparent and credible Standards and Certification schemes by stimulating dynamic institutional entrepreneurship in this area.

Legislative Agenda

Table 11.2 presents the priority legislative agenda that will complement and support the strategies to promote trade and investments.

Table 11.2 Legislative Agenda to Promote Trade and Investments

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Urgent ratification of the Regional Comprehensive Economic Partnership (RCEP) Agreement	Joining the RCEP will be beneficial to the Philippines to enhance its market access and investments. As of 2023, only the Philippines has not yet deposited their Instrument of Ratification to the ASEAN Secretariat. In 2020, RCEP accounted for 30 percent of the world's population, 30 percent of GDP, 29 percent of trade, and 33 percent of global inward investments.	Congress
NQI Act	The establishment of an NQI Act will help boost best practices and competitiveness. Compliance with standards can be a source of advantage (especially in the context of e-commerce). This will also facilitate secure market access and utilization of Free Trade Agreements (FTAs).	DTI and DOST
Export and Industry Development Act	Amendments to the law will provide targeted and strategic policy, program, and project support, including non-fiscal incentives, for the development of local industries towards export competitiveness. Most of the provisions of the Export Development Act have lapsed already.	DTI
EO for a whole-of-government, harmonized, and structured Investment Facilitation Mechanism, including resolution of critical issues and concerns for identified priority investments.	The issuance of an EO will provide cross-cutting facilitation services for priority investments.	Office of the President

PART IV

Enabling Environment

12

**Promote Financial Inclusion
and Improve Public Financial
Management**

Promote Financial Inclusion and Improve Public Financial Management

An economy with strong public financial management systems provides a better chance for public service improvement and effective financial efficiency, and fulfills its obligation to its citizens. The promotion of financial inclusion contributes to reducing inequality and improving the well-being of the poor and MSMEs. This will also result in an increase in overall savings rates, loans, and accounts in formal financial institutions.

This chapter provides strategies to strengthen financial inclusion, such as expanding access to digital finance and payments; improving the LGU revenue generation, budgeting processes, and expenditure management; and improving the overall financial management of regional line agencies.

Assessment and Challenges

Assessment

Throughout the years, many programs and issuances have been created to promote financial inclusion in the region. To ensure the availability of digital payment options for the public from government entities, the Office of the President of the Philippines issued EO 170, s. 2022, or the Adoption of Digital Payments for Government Disbursements and Collections. It intends to promote financial inclusion and strengthen the efforts for more efficient service delivery, and align with government efforts to pursue a digital economy. It is in line with RA 8792 or the Electronic Commerce Act, and RA 11032 or the EODB-EGSD Act of 2018.

To ensure consumer protection, education, and financial inclusion, the BSP and the DepEd conducted various financial literacy programs. The BSP and DepEd created FinEd, a financial literacy program for schools, civil servants, and the armed forces. The BSP, in collaboration with the OWWA, implemented the *Pinansyal na Talino at Kaalaman* for OFWs. The DepEd, along with Rizal Commercial Banking Corporation, created the DiskarTech program to promote financial literacy to educators and students.

The PhilSys aims to simplify public and private transactions by creating a foundational identification system. The

system will transform service delivery and access in the Philippines and in Bicol and at the same time, accelerate our transition to a digital economy. Currently, PhilSys has registered more than 3.48 million Bicolanos. PSA launched the PhilSys Birth Registration Assistance Project (PBRAP) to support the registration process for PhilSys. The PBRAP is aimed at GIDAs, with the assistance of DILG and LGUs, to facilitate the issuance and eliminate barriers to the registration of birth certificates. The two programs will contribute to the region's efforts in promoting financial inclusion, especially in the marginalized sector.

In 2022, the DBM Central Office released Local Budget Circular No. 147 to support the enhanced Public Financial Management Assessment Tool (ePFMAT). The ePFMAT is a digital and upgraded version of its predecessor which is a self-assessment tool used by LGU to measure their public financial performance. More LGUs are yet to be capacitated by the DBM to effectively use and implement ePFMAT.

The NEDA annually conducts investment programming activities and technical budget review. The budget review aims to: (a) strengthen the linkage of the planning, investment programming, and budgeting processes; and (b) ensure that the PAPs are in the Regional Development Investment Program (RDIP) support the plan objectives and sectoral priorities in the P/RDP, and contribute to the attainment of the SDG and regional priorities. The RLAs, SUCs, LGUs, Bicolano legislators, and CSOs are invited in the budget review to encourage active involvement in the public budgeting systems.

Challenges

Improving financial inclusion. In 2021, only 55.6 percent of adults, aged 15 years

and older, have a financial account with banking/financial institutions or mobile-money-service providers according to BSP. Though financial literacy has been improving throughout the years, data from BSP Financial Inclusion Survey Report suggest that individuals from socioeconomic classes D and E, or those in the lower middle class and lower class, respectively, as well as those with lower educational attainment, remain the lowest in terms of access to basic financial services. Bicolanos in the lower-income class, as compared to those in the higher-income classes, have a low proportion at 55.1 percent. The use of financial platforms, as well as various financial literacy programs, can aid the reduction of poverty by providing people with easier means of payment, managing income, savings, and various investment opportunities.

Increasing the capacity of LGUs to improve locally sourced income and reduce National Tax Allotment (NTA) dependency rate. With the implementation of EO 138, the LGUs' budget will expand because of the increase in the NTA. However, the sudden increase in the nationally sourced income may cause the LGUs' NTA dependency rate to rise. Based on the Department of Finance - Bureau of Local Government Finance (DOF-BLGF), the current locally-sourced LGU income ratio to total operating income is at 13 percent, which is close to the target of maintaining it at 15 percent. In the coming years, the ratio may potentially become lower due to the enactment of EO 138. Maintaining the ratio of the locally-sourced income versus the total operating income at 15 percent poses a challenge for the LGUs. Despite the increase in budget, LGUs are still encouraged to boost revenue-generating capabilities to reduce NTA dependency and make LGUs autonomous and self-sustaining. Aside from this,

Devolution Transition Plans (DTPs) of government agencies and LGUs have to be fast-tracked. Government agencies will

be in close coordination with the LGUs to determine priority projects that will suit the needs of the localities.

Targets

The Bicol RDP 2023-2028 aims to: (a) increase the proportion of adults with access to financial services; (b) improve financial inclusivity of the lower income classes; (c) increase the number of financial technology companies in the region; (d) increase the number of PPP

projects in the region; (e) increase the locally-sourced income of LGUs and reduce average NTA dependency rate; (f) expand growth in social and economic service expenditures; and (g) strengthen growth of locally-sourced LGU income.

Core Indicators

Table 12.1 presents the indicators and targets to promote financial inclusion and

improve public financial management.

Table 12.1 Core Indicators to Promote Financial Inclusion and Improve Public Financial Management

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Proportion of adults (15 years and older) with an account at a bank or other financial institutions or with a mobile-money-service provider increased (%)	55.6 (2021)	>=70.0	>=75.0	>=75.0	>=80.0	>=90.0	>=90.0	BSP Demand Side Survey	BSP
Proportion of E income class with accounts to proportion of ABC income class with accounts increased (%)	55.1 (2021)	>=60.0	>=65.0	>=65.0	>=70.0	>=75.0	>=75.0	BSP Demand Side Survey	BSP
No. of fintech companies increased	2 (2022)	4	6	8	8	10	10	Fintech Alliance	SEC
No. of PPP projects in the region	14 (2022)	Increasing						PPP Website	PPP
Ratio of locally-sourced LGU income to total current operating income maintained above 15 percent (%)	13% (2022-S1)	15%						DOF-BLGF Reports	DOF-BLGF
Year-on-Year growth in social and economic service expenditures maintained at 10 percent (%)	43.5% (2022-S1)	10%						DOF-BLGF Reports	DOF-BLGF
Growth of locally-sourced LGU income improved (%)	16% (2022-S1)	>11%						DOF-BLGF Reports	DOF-BLGF

Strategy Framework

Figure 12.1 Strategy Framework to Promote Financial Inclusion and Improve Public Financial Management



Strategies

The chapter framework will serve as a guide in promoting financial inclusion and improving public financial management. To support the attainment of the chapter

outcome, cooperation between the private sector and the government will be strengthened.

Outcome 1: Global position of Philippine export sectors restored, sustained, and strengthened

The provision of greater access to financial services to the marginalized sector and lower income individuals can empower them to work their way out of poverty. Broader financial inclusion will help individuals in meeting their basic needs, generating income, managing cash flow, and pursuing investment opportunities. The idea of financial inclusion is supported by international organizations, not only for individuals but for businesses as well. MSMEs in emerging markets may be able to broaden their growing ability with better financial inclusion, thus becoming more competitive.

Promote financial literacy. Existing programs in promoting financial literacy will be strengthened, including the development of additional platforms to accommodate remote learning. Financial literacy for students and

teachers will be intensified through the assistance of DepEd and BSP. This will pose awareness to the students in managing financial resources and will aid them in achieving financial stability. The LGUs and government agencies will promote programs specialized for the lower socioeconomic classes to aid in poverty reduction and promote a better understanding of managing finances.

The National Strategy for Financial Inclusion (NSFI) 2022-2028 will be adopted by the region's government agencies, as well as its priority initiatives. The adoption of NSFI strategies in the region ensures effective access to wide-ranging financial services in the region. The NSFI will serve as the guiding framework and facilitate a comprehensive approach to identifying, implementing, and evaluating financial inclusion efforts.

Improve access to financial services.

As a means of identification and one of the requirements for opening accounts in financial institutions, the PSA will accelerate the registration and release of PhilSys cards to Bicolanos. The Free Wi-Fi for All Program of DICT will be implemented to aid in providing internet services to remote areas with difficulties in connecting online. The program will strengthen online banking and payment

systems in remote areas, making access to basic needs more convenient and accessible. The OFWs will benefit from improved access to financial services, as remittances to their families can be accessed more easily and with fewer surcharges. Capacities of LGUs will be strengthened in order to access various climate and risk finance mechanisms including the People's Survival Fund, and Green Climate Fund, among others.

Outcome 2: Financial innovation accelerated and strengthened

As Bicolanos slowly recovered from the effects of the COVID-19 pandemic, several financial innovations were introduced to prioritize convenience and reduce contact. These will be further promoted to ensure that these innovations are accessible and consistent in terms of service delivery. Financial innovations, in order to promote financial inclusion, will be fully communicated to their target audience and consumers.

Promote and provide funding for innovation and start-ups.

To adapt to the new normal caused by the COVID-19 pandemic, the digitalization of financing methods, services, and e-commerce will be accelerated. These financial innovations in digital methods have been proven to be safer, as it limits physical contact, and provide more convenience to users. The region will capitalize on the current technological trend by funding innovation and the start-up of businesses to adopt digital and electronic business methods.

Several programs will be adopted in the region to support the strengthening and expansion of innovation in financial services. The DOST created the Start-up Development Program and Venture Financing Program, which will accelerate the commercialization of innovative

technologies by providing support to technology-based MSMEs. In 2022, BSP and DILG introduced the Paleng-QR Ph Plus program to expand digital payment acceptance in every city and municipality in the country.

Adopt a regulatory sandbox approach for financial technology innovators.

Financial technology or fintech, refers to new technology for delivering financing services and is regulated by both the BSP and the SEC. While both agencies are responsible for shaping the future of Philippine fintech industry, their roles differ. The SEC is responsible for protecting public investment, while the BSP has adopted a test-and-learn sandbox approach to create innovation and ideas. In line with this, the BSP will test and offer innovation in fintech in controlled environments, which may eventually be useful in local financing systems. The BSP will seek to create responsible innovation that will promote efficiency in financial systems and expand financial inclusion.

Encourage efficiency and innovation in small and medium enterprise financing, microfinance, and microinsurance.

Creating an enabling environment to ensure efficiency in financing MSMEs will be encouraged

in the region. In line with the EODB-EGSD Act of 2018, concerned government agencies with MSME financing will strengthen efficiency and innovation through the use of electronic platforms in the submission of necessary requirements and applications. The Philippine Guarantee Corporation (PHILGUARANTEE) will assist the MSMEs through its MSME Credit Guarantee Program and facilities by providing a first-loss guarantee. Aside from MSMEs, PHILGUARANTEE's various programs will aid electric cooperatives, individuals looking for housing loans, as well as the agricultural sector. Another program is the Livelihood Seeding Program – *Negosyo Serbisyo* Barangay of the DTI, which will widen the reach of business development assistance in cooperation with LGUs. In capacitating barangay officials, the DTI can provide basic advisory and information services to MSMEs in its locality, thus

providing them with relevant programs in financing. The implementation of the National Innovation Act will be supported, including the establishment of mechanisms to access various financing options, including grants that encourage innovation for MSMEs. (See *Chapters 9 and 10*).

Mainstream sustainable finance. In creating long-term investments, programs, and economic activities, all relevant government agencies will consider the environmental, social, and governance impacts to ensure sustainability. Government agencies will promote the values of alternative energy and green projects by setting an example and creating sustainable programs within their offices. With the rising energy problems and prices in the region, personal alternative energy projects within households will be promoted (See *Chapter 11*).

Outcome 3: An efficient and inclusive budget system implemented

An inclusive budget system ensures that an organization or agency removes barriers to allow other sectors, such as the private sector, CSOs, target groups, and other marginalized groups, to participate in the budgeting process. The inclusivity, automation, rightsizing, and feedback loops in the budget systems will contribute to the efficiency, effectiveness, and timeliness of the programs, activities, and projects.

Increase participation of the private sector in the procurement of government projects. Through the PPP, the private sector can help address the limited funding requirements for government projects. Such partnerships will be promoted and strengthened as infrastructure development and service delivery are

enhanced with sustainable funding sources. The House Bill No. 6527, or the “PPP Act,” has recently been approved by the House of Representatives for its third and final reading in December 2022. It will provide the enabling environment that will foster the growth of PPP for infrastructure and development projects. Government agencies will promote the implementation of the said policy once it has been passed into law to increase the participation of the private sector in government projects and PPP activities.

Ensure timely completion of awards and projects. In preparation for the full implementation of the Modernized Philippine Government Electronic Procurement System (mPhilGEPS), government agencies, specifically their Bids and Awards

Committee (BAC) secretariats, BAC chairperson/members, and technical working groups, will undergo training from the Philippine Government Electronic Procurement System on the new features and functionalities for procurement. The mPhilGEPS intends to provide and implement a total e-government procurement solution and achieve transparency in all stages of government procurement.

The DBM will continue to push for the passage of the Budget Modernization Bill to institutionalize the Cash Budgeting System. Public financial management reforms will aid in the simplification, improvement, and harmonization of financial management processes and information systems in the public sector. The bill intends to strengthen accountability by improving the government's ability to deliver direct, immediate, and substantial service to the public.

Improve efficiency of bureaucracy. Improvement of bureaucratic efficiency will be attained by streamlining government processes, pursuing digitization, enhancing feedback loops, and pursuing rightsizing in government agencies. The region will support the passage of the National Government Right-Sizing Act, which will be based on agency mandates, functions, and processes. EODB-EGSD will continue to be promoted to attain better public service delivery and digitization. At the same time, promoting the adoption of the ISO 9001:2000 Quality Management System among government agencies will standardize and streamline government processes. Government agencies accredited with ISO 9001:2001 will continuously improve their internal processes and enroll in new processes as well during their re-accreditation programs (*See Chapter 15*).

Outcome 4: Local government finance strengthened

The strengthening of local government finance is vital for LGUs to be autonomous and self-supporting. The capacity of LGUs to raise revenues will aid them in implementing the devolved functions as provided under EO 138, which implements the Mandanas-Garcia Supreme Court ruling. It will also lessen the LGU dependency on the NTA. LGUs that can manage their finances effectively can easily overcome the emerging issues and challenges in their respective localities, as well as provide timely, effective, and unhampered service delivery to the public.

Strengthen the capacity of LGUs to raise more revenues and implement devolved functions. To

strengthen the ability of LGUs to generate revenues, the region will support the Real Property Valuation and Assessment Reform Bill, which aims to appraise all real property based on prevailing market values in the location of the real property, in conformity with specified standards. If passed into law, LGUs will review and update old revenue codes every five years as mandated by the Local Government Code (LGC) of 1991. Further, the DILG and DOF released JMC 2019-01 to guide the LGUs in reviewing and adjusting regulatory fees in their respective localities. LGU's best practices for raising revenues will be replicated by peer-mentoring and sharing with the assistance of the BLGF.

The concerned government agencies and

LGUs will complete their respective DTP as required under EO 138. The facilitation and overall oversight of the endeavor are led by the Regional Committee on Devolution, chaired by DBM and co-chaired by DILG. The completion of DTPs will ensure the harmonious transition of the devolved functions from the government agencies to the LGUs. As such, the DTPs will serve as the guide for LGUs to fully assume and effectively implement the devolved roles and responsibilities.

Pursue an equitable and efficient NTA. The current distribution of the increased NTA to be received by LGUs can result to gaps between its needs and capacities. The computation for the distribution of NTA is the same regardless of LGU income classification.

This means that poor and wealthy LGUs will receive the same 25 percent of the NTA. As such, the region will support initiatives that will promote an equitable and efficient NTA including the revision of computation of the NTA per LGU to make an incentive-based distribution depending on the performance of LGUs in relation to financial capacity and income-generating capabilities. If the incentive-based distribution becomes enacted, our LGUs will enhance their performance based on the given criteria to gain a higher distribution of the NTA and at the same time increase their self-sustaining capacity through localized income-generating activities. The better-performing LGUs will be rewarded with funds and will share their best practices with the lower-performing LGUs for improvement.

Legislative Agenda

To achieve the chapter outcome, the government will pursue legislation outlined in Table 12.2.

Table 12.2 Legislative Agenda to Promote Financial Inclusion and Improve Public Financial Management Promote Trade and Investments

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Digital Payments Act	The enactment of the act will facilitate transactions, arrangements, and exchange of goods and services by promoting the universal use of digital payments in government financial transactions and the general public.	BSP
Capital Markets Development Act	The act will expand the capital market by developing a robust institutional investor base, strengthening the regulatory environment, and promoting financial literacy.	SEC
Budget Modernization Bill	The budget modernization bill seeks to institutionalize the cash-based budgeting system to strengthen fiscal discipline in the allocation and use of budget resources.	DBM
Military and Uniformed Personnel (MUP) Reform Bill	The bill aims to create a mandatory pension system for MUP pension fund and increase the compulsory retirement age of MUPs to control the pension cost and make financial systems more stable.	DBM, Bureau of Treasury
Local Government Finance	Real Property Valuation and Assessment Bill <ul style="list-style-type: none"> To assess the value of real properties in specific localities in accordance with internationally accepted valuation standards. 	DOF-BLGF, DBM

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
	<p>Amendment of the NTA Distribution Formula</p> <ul style="list-style-type: none"> To revisit the computation for NTA distribution for LGUs based on financial capacity and income-generating ability. <p>LGU Income Classification Bill</p> <ul style="list-style-type: none"> Seeks to authorize the Secretary of Finance to set the income ranges and undertake the regular income reclassification of all provinces, cities, and municipalities once every three fiscal years. <p>LGU Property Insurance</p> <ul style="list-style-type: none"> Proposes to mandate all provinces, cities, and municipalities to ensure all government properties with the Government Insurance Fund. The measure will protect LGUs' fiscal position against significant losses due to property damages. 	

13

Expand and Upgrade Infrastructure



Expand and Upgrade Infrastructure

Infrastructure is the backbone of regional development as it supports a locality's sustainable economic and social development. In this chapter, strategies were formulated to attain the sector outcome of delivering sustainable, resilient, integrated, and modernized infrastructure facilities and services with focus on four subsector outcomes on connectivity, water resources, energy, and social infrastructure. To realize the sector outcome, investments in infrastructure projects need to be increased.

Assessment and Challenges

Assessment

Physical Connectivity

Few new roads and bridges were constructed. From 2017 to 2021, 67.72 lane km new roads were constructed, which is less than half of the planned target of 145.13 lane km. There were 39 bridges constructed along primary roads, exceeding the plan target of 22 bridges. The low accomplishment on the construction of new roads is attributed to the following: (a) low approved budget allocations per DPWH; (b) the COVID-19 pandemic; and (c) inclement weather conditions which slowed down the construction of major roads. These affected the physical connectivity on land transportation in the entire region, reducing the travel time of commuters, goods, and services.

The volume of traffic along national roads increased. The volume of motor vehicles plying the main highways in the Bicol Region increased, amid the travel restrictions imposed during the pandemic years 2020-2022. The number of motor vehicles registered (new and renewal) increased from about 455,000 in 2020 to

more than 550,000 in 2022. The increase in the volume of vehicles along major thoroughfares resulted in heavy traffic and economic loss due to delays in mobility.

Flights and passenger movements in airports were low. The region has four operational airports with commercial operations: the Bicol International Airport (BIA) in Daraga, Albay, Naga Airport in Camarines Sur, Virac Airport in Catanduanes, and Masbate Airport in Masbate.

The number of round-trip flights decreased from 5,900 in 2019 to close to 3,500 in 2021. Air passenger traffic (domestic) consequently reduced from more than 915,000 in 2019 to close to 718,000 in 2022. Lesser flights and passengers were noted due to the following reasons: (a) use of smaller aircraft (propeller-type planes) due to shorter runways; (b) absence or lack of vital air navigational equipment; and (c) expensive airfares.

Fast deterioration of major roads due to overloaded cargo trucks. The dependence on road-based transportation for the movement of goods and services over land, overloading of cargo trucks, weak enforcement of laws on overloaded trucks, and insufficient weighbridges along the AH26 resulted in the fast deterioration the national and local roads.

Commuter rail services are limited. The 37-kilometer Naga-Sipocot rail service along the existing PNR railway track from Manila to Legazpi City is the only railway section being used for commuter service. Two daily round trips are provided from Naga to Sipocot with a fare ranging from PHP12 to PHP32 per trip depending on the distance traveled.

Weak coordination between agencies and utility companies on road works and on the repair/ construction of utilities. Road widening activities along national roads in the Bicol Region are not properly coordinated with the concerned utility providers, resulting in traffic jams, road accidents, prolonged or repeated closure of roads, and higher construction costs. The presence of overhead electric and telecommunications cables that were no longer in use and leaning and rotting

wooden poles along major thoroughfares pose hazards to motor vehicles and pedestrians.

Financial constraints on the part of the electric cooperatives hindered the immediate relocation of electric posts affected by the widening projects of national roads. The funding for the relocation of electric posts was not released in full to electric cooperatives by DPWH, wherein only half was the initial release, and the other half was upon completion.

Seaports and ancillary facilities remain poor and inadequate. There are long queues of cargo trucks and other vehicles in some seaport areas due to inadequate equipment, facilities, and support infrastructures, especially during inclement weather conditions. Matnog port require immediate attention as the long queue of vehicles stretch for several kilometers along the highway during gail warnings and other weather disturbances. There are 12 seaports in the region that have RORO facilities namely: Tabaco, Pasacao, Pioduran, Legazpi, Bulan, Matnog, Virac, San Andres, San Pascual, Claveria, Aroroy, and San Jacinto ports.

Digital Connectivity

Cellular sites in the region decreased. The decrease in the number of cellular sites was due to the following: (a) TC Nina that destroyed communication facilities; and (b) delay in the implementation of the National Broadband Network Project. The boosted network infrastructure serves as an alternate route for internet traffic to go through when there is an outage or failure on the primary route of the subsea cables. In 2021, the average broadband speed of the internet in the Bicol Region was recorded at 21.45 megabits per second

(Mbps), exceeding the target of 13 Mbps.

Cyber Security Plan implemented. The activities conducted on cybersecurity in the region are the following: (a) cybersecurity caravans/events, including training of persons; (b) training on Data Privacy; (c) seminars on Digital Parenting; and (d) provision of technical assistance on cybersecurity. Although there were no reported cybersecurity breaches in the region, the DICT continually undertake cybersecurity measures to prevent a breach.

Water Resources

Bicol Region is ranked fourth with the least water resource potential among administrative regions. The region's water resources potential, which accounts for only 2.84 percent of the country's potential, totals 4,145 million cubic meters (MCM) per year.⁴² Of this total, about 3,060 MCM/year is the surface water potential while 1,085 MCM/year is the groundwater potential.

The water balance in the province island of Masbate will be tight.⁴³ The surface water balance in the Donsol area is declining, and the groundwater balance in the northern part of the region is also declining particularly in the Naga City area.⁴⁴ Legazpi City and the island province of Masbate are also predicted to have a negative groundwater balance in the future. The decreasing water balance in the region will require the need to address the competing water users and the changing priorities of water infrastructure. It is imperative because of the increased water demand and competition among water users because of the growing population, industrialization, urbanization, and economic development.

The coordination and capacities of water resources agencies are poor. Water planning and financing priorities are often affected by decisions made on political jurisdictions instead of hydrologic boundaries. For example, the implementations of programs/projects/activities for the Bicol River Basin (BRB) are influenced by political dynamics at the local level. The lack of influence of and coordination among water resources-related agencies results in unintegrated

planning and policy-making interventions

Moreover, the water agencies' inadequate financial and technical capacities in planning and implementing water-related infrastructure projects are worsened by the lack of an updated and comprehensive inventory of all water-related infrastructure. This hinders the facilitation of a harmonized rehabilitation and maintenance program, leading to the deterioration of many water-related infrastructure facilities. There were several projects under the Bicol River Basin Master were not implemented due to the lack of funds. Moreover, a flood control master plan for BRB has not been formulated.

Universal access to safe, affordable, and sustainable water supply and sanitation services has yet to be achieved. DOH data showed that a total of 1,058,211 households have access to basic water supply under Levels I, II, and III water systems, or about 81.2 percent of the projected number of households in the region.

On sanitation, 80.9 percent of Filipino families have a "basic sanitation service level" (i.e., used an improved sanitation facility not shared with another household), 8.5 percent of households in the Bicol Region used an improved sanitation facility shared with two or more households, and 2.5 percent had an "unimproved service level" of households that used pit latrines without a slab or platform, hanging latrines or bucket latrines.

42 Philippine Water Supply and Sanitation Master Plan, Volume 2: Bicol Region Water Supply and Sanitation Databook and Regional Roadmap. Available URL: Philippine Water Supply and Sanitation Master Plan - National Economic and Development Authority (neda.gov.ph). 2019

43 Progress Report on the Data Collection Survey for the National Water Resources Development and Management in the Republic of the Philippines. December 2022

44 Ibid.

The Bicol Region remains one of the regions with the highest number of households practicing open defecation. There is slow progress to eliminate open defecation in the region with households practicing open defecation prevalent in rural areas along the coastlines where

settlers have no access to sanitation facilities.⁴⁵ Data from the Annual Poverty Indicator Survey showed that the region's open defecation rate is 8.1 percent in 2022⁴⁶ from 9.8 percent in 2017, which is more than thrice the national percentage.

Table 13.1 Level and Status of Sanitation in the Bicol Region, CY 2022

LEVEL OF SANITATION FACILITIES	LEVEL OF SERVICE (IN %)
Basic	80.9
Limited	8.5
Unimproved	2.5
Open Defecation	8.1

Source: DOH

There are two existing septage treatment plants (STPs) in the region, only in Naga City and Legazpi City.

Irrigation development remains low. As of December 2022, the total service area is 145,681 has. of the 239,660 has. Irrigable areas. The irrigation development in the Bicol Region over the Plan period was recorded at 60.79 percent of the total irrigable area in 2022 from 58.27 percent

in 2017 or an increase of only 2.51 percent (Table 13.2). Camarines Sur, which is the region's largest province, has 123,700 has. of irrigable area of which 78,792 has. or 63.70 percent were developed while Catanduanes, which is the smallest province, has 3,770 has. of irrigable areas of which 3,341 has. or 88.62 percent were developed. The expansion of irrigation systems and appurtenant drainage facilities remains marginal.

Table 13.2. Status of Irrigation Development in the Bicol Region, 2017 to 2022

PROVINCE	IRRIGABLE AREAS	2017		2018		2019		2020		2021		2022	
		TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED	TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED	TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED	TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED	TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED	TOTAL IRRIGATION SYSTEMS	REMAINING AREA TO BE DEVELOPED
Albay	54,620	30,532	24,088	31,538	23,082	31,632	22,988	31,749	22,871	31,889	22,731	31,984	22,636
Camarines Norte	22,590	8,995	13,595	9,596	12,994	9,632	12,958	9,788	12,802	9,863	12,727	9,913	12,677
Camarines Sur	123,700	76,878	46,822	77,283	46,417	77,579	46,121	77,635	46,065	78,130	45,570	78,792	44,908
Catanduanes	3,770	3,201	569	3,201	569	3,211	559	3,269	501	3,312	458	3,341	429
Masbate	19,880	6,656	13,224	6,795	13,085	6,848	13,032	6,863	13,017	7,042	12,838	7,185	12,695
Sorsogon	15,100	13,392	1,708	14,102	998	14,102	998	14,159	941	14,277	823	14,466	634
TOTAL	239,660	139,654	100,006	142,515	97,145	143,004	96,656	143,463	96,197	144,513	95,147	145,681	93,979

Source: NIA

45 Philippine Water Supply and Sanitation Master Plan. Volume 2: Bicol Region Water Supply and Sanitation Databook and Regional Roadmap. Available URL: Philippine Water Supply and Sanitation Master Plan - National Economic and Development Authority (neda.gov.ph). 2019

46 2022 Annual Poverty Indicator Survey. Available URL: <https://psa.gov.ph/income-expenditure/apis/node/176566>. Accessed on 23 March 2023

The performance of irrigation systems is low due to watershed degradation resulting in increased run-off and silts compounded by extreme climate-related events that affected its operations. Illegal offtakes at random places and leakages along canal systems, exacerbated by damage during the typhoon season, account for poor efficiency due to water losses.

Bicol Region is vulnerable to water-related hazards. Approximately 1,405.72 sq. km, mostly found within the Bicol River Basin area, are categorized as very highly susceptible to flooding. It is also where most of the agricultural areas are found primarily planted to palay. On the other hand, around 315 sq. km. of the region's coastal area, mostly located along the eastern seaboard, is prone to tsunami with inundation depths of five meters and above.

Energy

The COVID-19 pandemic aggravated the delays in the commercial operation and timely completion of power projects by restricting the mobility of people, constraining the delivery and transit of equipment and materials, and limiting the entry of foreign technical experts. The full implementation of the Total Electrification Program (TEP) was also hampered by the pandemic because of the limited mobility of distribution utilities, which was due to government-imposed travel restrictions and changes/adjustments in the prioritization of fund allocation.

Despite having two major geothermal power plants such as the Bacon-Manito and Tiwi Geothermal Power Plants, the Bicol Region still experiences power outages. This is aggravated by high power rates as compared with the other regions in the Luzon grid, thereby discouraging

Flood control measures and drainage facilities were constructed and improved to protect lives and properties from floods. In 2021, a total of 187 flood control projects were implemented by the Department of Public Works and Highways (DPWH). About, 68,351 lineal meters of flood control structures were constructed, 7,362 lineal meters below the target of 75,713 lineal meters.

The damage brought by typhoon-induced rainfall and subsequent flooding as well as inundation due to tsunamis in coastal areas are very high. The effect of increasing intensity, frequency, and duration of extreme weather events due to climate change on the water cycles will continue to strain the built infrastructures. These infrastructures must be designed and built considering the effects of these hazards and climate change. (*See Chapters 5 and 16*).

the entry of possible investors to the region.

The status of energization in the Bicol region increased from 81.6 percent in 2021 to 82.26 percent in 2022. Out of 8,534 sitios in the Bicol, a total of 7,020 sitios were energized in 2022. The First Catanduanes Electric Cooperative, Inc., recorded the highest energization rate in 2022 at 97 percent while the Ticao Island Electric Cooperative, Inc. has the lowest sitio energization rate of 52 percent.

Too high systems loss of electric cooperatives. The average systems loss of electric cooperatives in the region is 16.03 percent as of February 2023, which is above the desired systems loss of nine percent. In 2022, the Albay Electric Cooperative (ALECO) registered the highest systems loss of 28 percent while

the Camarines Norte Electric Cooperative (CANORECO) had the lowest systems loss of 6.37 percent. The targeted one-digit systems loss was not achieved in the following electric cooperatives: Camarines Sur Electric Cooperatives 2 and 4, Sorsogon Electric Cooperatives 1 and 2, and Masbate Electric Cooperative, attributed to the high incidence of electricity pilferage through illegal connections and aging distribution lines

and equipment.

Many electric cooperatives (ECs) are ailing financially. The failure to attract more investments that will increase electricity demand contributed to the low financial viability of the ECs. Also, the high systems loss of most ECs in the region contributed to financial losses and poor services.

Social Infrastructure

Education

The targeted number of school buildings was not achieved. The total number of elementary and junior high school buildings (public and private) constructed in the plan period is less than the targeted number of schools in the plan period from 2017-2021. This would likely lead to a shortage of classrooms, especially in the remote areas of the region. The targeted number of school buildings was not achieved due to the following: (a) lack of funding and budget allocations for projects; (b) restrictions due to the COVID-19 pandemic (travel restrictions, manpower availability due to 50 percent workforce arrangement on site, and delayed deliveries of construction materials); and (c) poor participation of concerned entities in virtual meetings resulting in unsubstantial outputs and delays in the implementation of PAPs.

Further, the high cost of repair and maintenance of classrooms damaged by TCs QRU that hit the region in November 2020, and the use of public schools as temporary shelters or evacuation centers for those affected by disasters posed challenges in the provision of adequate school facilities to the students.

Health

From 2020 onwards, managing the COVID-19 risks has been a great challenge. The region lacks hospital beds, intensive care units, isolation rooms, and other healthcare facilities. Funds for the construction of these facilities are needed to cater to COVID-19 cases.

Under the Health Facilities Enhancement Fund (HFEP), 165 RHUs were allocated funding from 2016-2021. However, there were no new barangay health stations (BHS) constructed in 2021 because BHS was not included in the GAA for funding.

Housing

On the housing facilities, the number of socialized housing units constructed exceeded the plan target in 2021. The member shelter agencies of the DHSUD delivered a total of 18,341 units of housing assistance through the implementation of four major programs: (a) Resettlement Program; (b) Community Mortgage Program; (c) Direct Housing Provision; and d) Indirect Housing Provision.

For the Resettlement Program, the National Housing Authority (NHA)

has completed 567 units against its target of 1,373 units representing 41.30 percent accomplishment in 2021. For the Community Mortgage Program, a total of 200 household borrowers benefited from this project provided by SHFC. For the Direct Housing Provision, the NHA provided 200 units of permanent housing to victims of calamity; and helped 14,614 individuals through the Emergency Housing Assistance Program (EHAP). For the Indirect Housing Provision, the HDMF disposed of 475 units of the Fund's acquired assets (*See Chapter 4.3*).

The affordability and access to government housing programs by the poor remain a major challenge. Many poor HHs live in housing units with roofs and walls made of light or salvaged materials and without electricity. The demand for socialized housing units increases due to the increase in the population.

Solid Waste Management

The total solid waste generated in the Bicol Region has been increasing from 2017-2021 due to increasing population and consumption, thus exacerbating the problems of inefficient garbage collection and inadequate disposal facilities.

Challenges

Connectivity

The challenges of the transportation sector are: (a) enhancing inter-modal transport connectivity, (b) strengthening the transport linkage among urban centers, agricultural and industrial zones, tourism hubs, and other growth areas to improve the movement of people, goods, and services, (c) improving accessibility of transportation facilities and services to PWDs, as well as children and the elderly of transportation facilities and services,

The Bicol Region has 12 SLFs operated by LGUs, to wit: Albay (4 SLFs); Camarines Sur (5 SLFs); Masbate (2 SLFs) and Sorsogon (1 SLF). On the operation of the MRF, per DENR-EMB Region 5, 1,103 barangays are covered by MRFs or 31.78 percent out of the 3,471 total number of barangays in the region.

Hospital wastes also increase in the region, there are insufficient disposal facilities for toxic, infectious, and hazardous medical waste in the region. Most of the hospital waste in the region is transported or hauled to the neighboring regions for treatment and disposal.

The SWM facilities remain inadequate to cope with the increasing rate of waste generation particularly in urban areas. Most of the municipalities in the region are still unserved by common waste facilities such as MRFs and SLFs. The provision of solid waste facilities is hampered by the following challenges: (a) low willingness of LGUs to pay SWM services; (b) low awareness of waste recycling, recovery, and composting technologies; (c) no clear policy on clustering of LGUs on SWM services; and (d) lack of technical and financial capabilities of LGUs in implementing solid waste management projects.

(d) increasing redundancy to reduce the vulnerability of growth areas and the GIDAs, and (e) adopting the national standards for roads.

For digital connectivity, the challenges are: (a) increasing the number of LGUs with internet access; (b) increasing the internet broadband speed regionwide; and (c) protecting information technology systems from malicious attacks.

Water Resources

Among the critical challenges to effectively manage the region's water resources are as follows: (1) ensuring water security; (2) addressing sanitation gaps; (3) increasing the resiliency of water-

related infrastructures; (4) strengthening the institutional structure of the water resources sector; and (5) generating water-related data, particularly on groundwater.

Energy

For energy, the challenges are: (a) encouraging investors in renewable energy (RE) because of other cheaper energy development costs compared to

other sources of energy; (b) ensuring energy security; and (c) attaining full electrification all sitios and households.

Social Infrastructure

The challenges under the social infrastructure are: (a) providing sufficient and resilient school, health, and housing facilities, and solid waste management

facilities; and (b) strengthening readiness for public health emergencies like epidemiology and disease surveillance.

Targets

Connectivity

Under the physical connectivity the targets are: (a) new roads constructed to close the gaps in the national road network (lane kms.); b) length of paved national roads (km.), (c) number of bridges along primary roads made resilient; (d) number of new constructed permanent bridges along national roads; (e) increase the volume of air passenger and cargo traffic; (f) number of passengers by sea transport

increased (cumulative); and (g) cargo shipped via air increased (international and domestic) (MT, cumulative).

Under digital connectivity, the targets are: (a) average broadband speed increased (Mbps); (b) proportion of households with an internet connection to the total number of HH (% , cumulative); and (c) average download speed (Mbps).

Water Resources

The proposed regional core indicators of underwater resources are: (1) safe water supply coverage (% of families); (2) access to basic sanitation (% of families); (3) open defecation (% of families); (4) the ratio of the actual irrigated area to the

total potential irrigable area increased (% , cumulative); (5) the number of HHs safe from 25-year flood or flood depth of 20 cm for < 12 hours; and (6) number of households safe from two and four-meter storm surge.

Energy

The proposed regional core indicators are: (a) electricity consumption per capita increased (kwh/ person); (b) share

of renewable energy (RE) in optimal generation mix increased (%); and (c) renewable energy installed capacity (MW).

Social Infrastructure

Education

The proposed regional core indicators are: (a) classroom-to-pupil ratio (Primary/Junior High School/Senior HS); and (b) water and sanitation (WatSan) facility-to-pupil ratio.

Health

The proposed regional core indicators are as follows: (a) number of BHS constructed; (b) number of RHU constructed; and (c) RHUs to population ratio.

Housing

The proposed regional core indicators

are as follows: (a) number of socialized housing units produced/taken out (lot only); (b) number of socialized housing units produced/taken out (house only); and (c) number of socialized housing units produced/taken out (house and lot package).

Solid Waste Management

The proposed regional core indicators are as follows: (a) number of LGUs with operational MRF; (b) number of LGUs with approved SWM Plan; and (c) proportion of cities/municipalities served by SLFs.

Core Indicators

Table 13.3 presents the indicators and targets to expand and upgrade infrastructure.

Table 13.3 Core Indicators to Expand and Upgrade Infrastructure

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Physical Connectivity									
New roads constructed to close the gaps in the national road network (1km kms.)	20.25 (2022)	20.83	50.07	42.57	46.83	51.52	56.67	DPWH Report	DPWH
Length of Paved National Roads (km.)	0.96 (2022)	0.21	8.30	Increasing				DPWH Report	DPWH
The number of bridges along primary roads made resilient	29 (2022)	32	110	Increasing				DPWH Report	DPWH
Number of newly constructed permanent bridges along national roads	3 (2022)	5	20	Increasing				DPWH Report	DPWH
Passenger Transported via air increased (cumulative)	151,924 (2021)	756,677	814,257	842,415	875,597	905,430	936,100	CAAP Report	CAAP
Cargo shipped via air (international and domestic) (MT)	432,908 (2022)	2,726,153	2,661,153	2,661,420	2,412,266	2,262,482	2,137,855	CAAP Report	CAAP

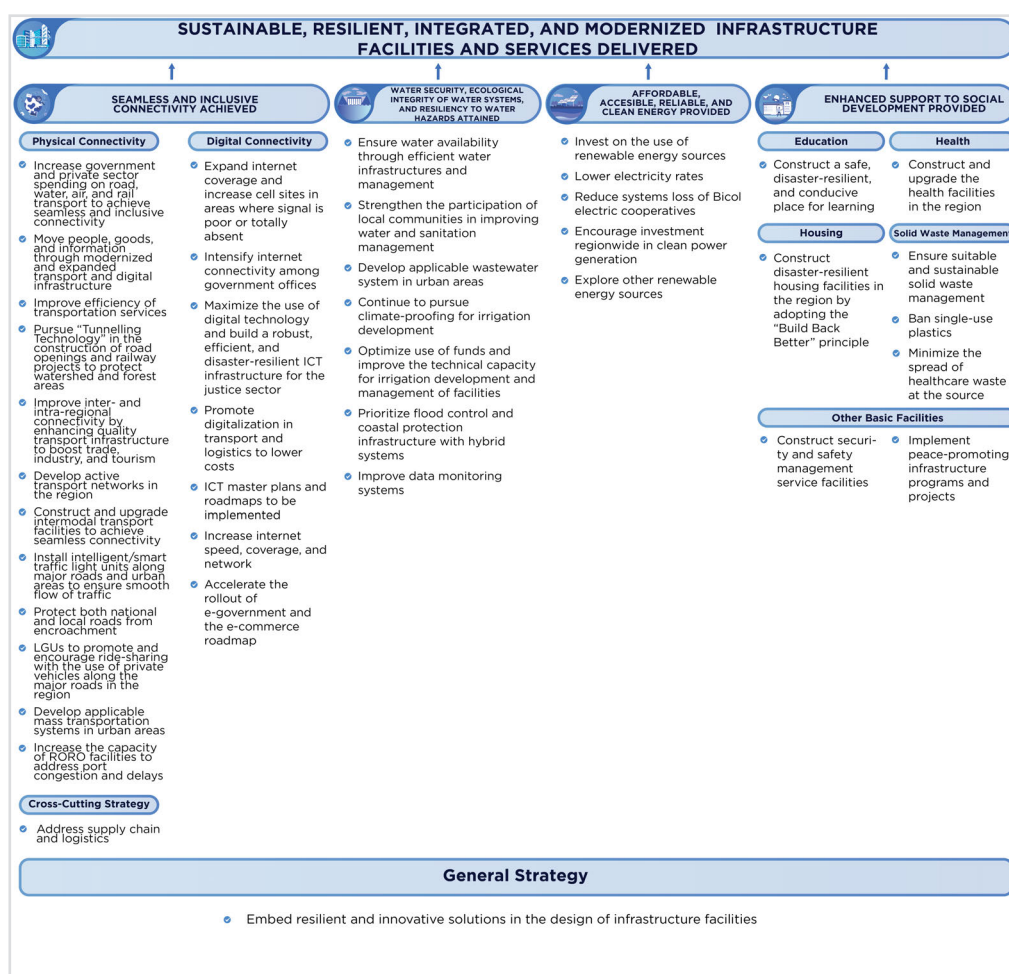
Indicator	Baseline (Year)	Annual Plan Targets						Means of Verification	Responsible Agency
		2023	2024	2025	2026	2027	2028		
Digital Connectivity									
Average broadband speed increased (Mbps)	21.45 (2021)	Increasing						DICT Report	DICT
Water security, the ecological integrity of water systems and resiliency to water hazards									
Safe water supply coverage (% of families)	81.2 (2020)	Increasing						DOH/WDs Report	DOH / WDs / LGUs
Access to basic sanitation (% of families)	80.4 (2020)	Increasing						DOH/WDs Report	DOH / WDs / LGUs
Open defecation reduced (% of families)	8.4 (2020)	Decreasing						DOH/WDs Report	DOH / WDs / LGUs
Ratio of the actual irrigated area to the total potential irrigable area increased [% cumulative]	60.786 (2022)	60.934	Increasing				NIA Report	NIA	
Affordable, accessible, reliable and clean energy provided									
Electricity consumption per capita increased (kWh/person)	1,451.10 (2021)	1,736.58	1,834.29	1,937.59	2,036.51	2,143.98	2,253.05	DOE Report	DOE
Share of renewable energy (RE) in optimal generation mix increased (%)	22.40 (2021)	24	26	28	30	32	33	DOE Report	DOE
Renewable energy installed capacity (MW)	5,471 (2022)	10,500	13,200	15,700	18,400	21,600	23,900	DOE Report	DOE
Solid Waste Management									
No. of Operational MRF	842 (2021)	25	25	25	25	25	25	EMB Report	EMB
No. of approved SWM	39 (2022)	27	27	Increasing				EMB Report	EMB
Proportion of Cities / Municipalities served by SLFs	7 (2022)	7	7	5	5	5	5	EMB Report	EMB

Strategy Framework

This chapter is geared toward the delivery of sustainable, resilient, integrated, and modern infrastructure systems. It comprises cross-cutting strategies and

specific strategies corresponding to each of the infrastructure subsectors: connectivity (physical and digital), water resources, energy, and social infrastructure.

Figure 13.1 Strategy Framework to Expand and Upgrade Infrastructure



Strategies

General Strategy

Embed resilient and innovative solutions in the design of infrastructure facilities. The Bicol Region is highly vulnerable to climate change and natural disasters like typhoons and volcanic eruptions. Mainstreaming

resiliency and sustainability in the current infrastructure planning is imperative to reduce additional costs in infrastructure facilities, thereby maximizing the lifespan of infrastructure facilities.

Specific Strategies

Physical Connectivity

Outcome 1: Seamless and inclusive connectivity achieved

Increase government and private sector spending on road, water, air, and rail transport to achieve seamless and inclusive connectivity.

Agencies and LGUs will prepare more project proposals for local, foreign, and PPP financing. The private sector will be encouraged to invest in transport projects in the region through the provision of technical assistance and other requirements for PPP financing.

Move people, goods, and information through modernized and expanded transport and digital infrastructure. The DICT, DOTr, and DPWH will use appropriate technologies in the modernization of transport and digital infrastructure (*See Chapter 6*).

Improve the efficiency of transportation services. The PNR lots within train stations and PPA within the port areas will be leased to LGUs and private entities for the construction of shopping centers, restaurants, amusement areas, hotel accommodations, and other commercial establishments to serve as One-Stop-Shop for commuters.

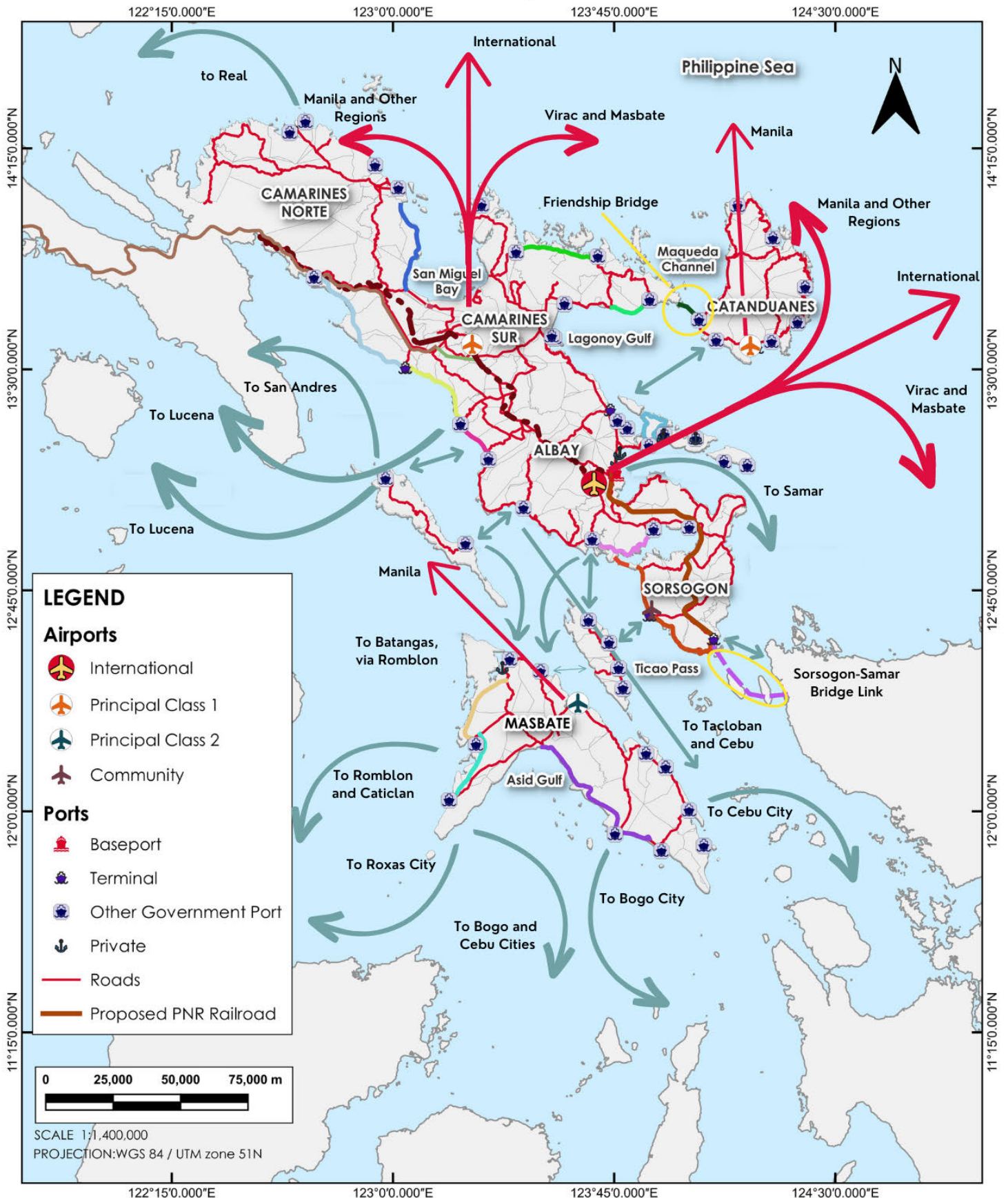
Pursue “Tunnelling Technology” in the construction of roads and railway projects to protect watershed and forest areas. Road opening projects of DPWH and railway sections of the PNR SLH Project that will traverse mountainous areas will be studied to consider the use of tunneling technology. This will minimize the cost and destruction to the environment,

including road traffic disruptions and noise and air pollution during construction activities. Tunneling will also shorten the period of construction (*See Chapter 10*).

Improve inter- and intra-regional connectivity by enhancing quality transport infrastructure to boost trade, industry, and tourism. Seaports and airports will be upgraded to international standards. The RORO ports with passenger terminal buildings will be provided in Tabaco City, Pioduran, Legazpi City and Pantao (Albay); San Andres and Virac (Catanduanes); Matnog, Bulan, Castilla and Pilar (Sorsogon); Masbate City, Aroroy, Calumpang (Balud), Mandaon, Cataingan, San Pascual, Claveria, San Jacinto, and Cawayan (Masbate); and Jose Panganiban Port in Camarines Norte. The BIA will be improved with the airside obstruction removed and the landside improved. The Naga Airport will be reoriented with a better and safer runway and passenger terminal building. The feasibility study for the relocation of Masbate airport will be completed and approved, and the acquisition of the right of way will be completed. The community/feeder airports (e.g., Bulan, Bacon, Daet) will be upgraded to serve as alternate airports.

New sea routes will be opened with bigger and faster sea vessels with speeds of not less than 20 knots that will connect to the following ports: Jose Panganiban Port to Real Port (Quezon); San Pascual Port to San Andres, Quezon, and Lucena City

Map13.1 Inter and Intra-Regional Connectivity Map Bicol Region



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY REGIONAL OFFICE V
LEGAZPI CITY, ALBAY

Source: Civil Aviation Authority of the Philippines, Department of Transportation, Department of Public Works and Highways, and Philippine Ports Authority

Year of Publication: 2022

Note: Administrative boundaries are approximated.

via Boac Port (Marinduque); Pantao Port to Lucena City, Cajidiocan (Romblon), Calapan, and Caticlan; Pioduran Port to Tacloban and Cebu Cities; Cataingan Port to Calbayog (Samar), Calubian (Leyte), and Cebu City; Cawayan Port to Bogó City, Cebu; Calumpang (Balud) Port to Culasi (Roxas City), Bogó and Cebu Cities; Masbate City to Cajidiocan (Romblon); Mandaon Port to Asagra and San Agustin (Romblon), Caticlan via San Jose, Romblon; and Legazpi Port to Allen and Jubasan, Northern Samar.

Access roads leading to seaports and airports will be constructed of good quality standards and closely monitored by involving PSOs. The feasibility studies and detailed engineering and designs for the Catanduanes Friendship Bridge and the Sorsogon-Samar Bridge Link projects will be completed. The latter project will complement the PNR SLH project and the TR5 project (formerly the Quezon Bicol Expressway project) that will terminate in Matnog, Sorsogon. The Sorsogon-Samar Bridge link project is of national importance as it will contribute to the development of the Samar, Leyte, and Mindanao provinces. The project will also address the perennial problem of motorists being stranded during weather disturbances causing the long queue of vehicles, and port congestion during the peak season.

Develop active transport networks in the region. Existing thoroughfares and bridges across the region will be studied and if possible, will be redesigned and retrofitted for asset preservation and to protect motorists and pedestrians. Road furniture like corridors, widened sidewalks, bike and joggers' lanes, pedestrian bridges, greeneries, waiting sheds, road signs, and street lights and markings will be installed for public

convenience, safety and protection.

Construct and upgrade intermodal transport facilities to achieve seamless connectivity.

Intermodal transport facilities will minimize traffic congestion in urban centers like Legazpi City and Naga City. Pedestrian bridges will be constructed inside urban centers to ensure the smooth flow of traffic and the safety of pedestrians. Commuter trains and buses will be used for medium and long-distance trips across the region. Train and bus stations will be constructed at the airports and ports.

Install intelligent/smart traffic light units along major roads and urban areas to ensure a smooth flow of traffic.

Intelligent traffic lights will operate 24 hours with programmable signal timing based on the volume of vehicles during peak and lean hours. This will ensure a smooth traffic flow and reduce the number of situations when breaking traffic rules seems appealing or undetectable.

Protect both national and local roads from encroachment.

Removing encroachment problems along national and local roads will result in the smooth flow of traffic of motor vehicles. The encroachment problems along major roads in the Bicol REGION can be done through the following: (a) LGUs to monitor and strictly enforce Presidential Decree (PD) 178 (Revised Philippine Highway Act) to ensure road safety of motorists and pedestrians; (b) assign areas for vendors and free pedestrian walkways, (c) remove illegal dwellings along road shoulders/pedestrians, (d) install appropriate signages in right of ways to deter encroachment problems, and regularly monitored by the concerned agencies and LGUs.

The LGUs to promote and encourage ride-sharing with the use of private vehicles along the major roads in the region. This results in fewer automobiles on the road, less occurrence of vehicular accidents, lesser fossil consumption, and less carbon emission or air pollution.

Develop applicable mass transportation systems in urban areas. Mass transportation systems like tramways, railways, and ferry systems will be prioritized in urban areas for the convenience of commuters. Study and explore the use of tramways in urban centers like Legazpi City to Daraga (BIA) and Naga City to Pili (Naga Airport) areas to provide a faster mode of transport and decrease the volume of vehicles on the road. Existing public transportation systems like traditional jeepneys and

tricycles will be upgraded and modernized for the convenience and safety of the riding public.

Increase the capacity of RORO facilities to address port congestion and delays. The capacity of RORO facilities especially in Matnog, Tabaco City, Pilar, Pioduran, and Masbate City ports will be increased to accommodate large-capacity RORO vessels. Modern and adequate ancillary facilities for passengers such as passenger terminal buildings, shops, communication services, parking areas, booking/ticketing offices, and restrooms will be provided inside the port premises. To address the port congestion in Matnog Port, a partner port in the province of Sorsogon will be constructed with Legazpi Port as an alternate port.

Cross-cutting Strategy

Address supply chain and logistics (See Chapter 6).

Digital Connectivity

Expand internet coverage and increase cell sites in areas where the signal is poor or absent. Additional cell sites will be installed in areas in the Bicol REGION where there is weak to no signal accessibility (See Chapter 9).

Intensify internet connectivity among government offices. The Free Wi-Fi for All Program of DICT will be continued to provide free internet access in public places per RA 10929. This can also be done through electronic interconnection or the internet by encouraging private sector participation (See Chapter 15).

Maximize the use of digital technology and build a robust, efficient, and disaster-resilient ICT infrastructure for the justice sector (See Chapter 14).

Promote digitalization in transport and logistics to lower costs (See Chapter 7).

Implement ICT master plans and roadmaps. Under the E-Government Master Plan (EGMP), DICT will continue the establishment of Technology Empowerment for Education, Employment, Entrepreneurship, and Economic Development (Tech4ED)

centers in the Bicol Region. The Philippine National Public Key Infrastructure (PNPKI), a program in the ICT master plan that allows users of public networks like the internet to exchange private data securely will be continued. The DICT will continue the approval and issuance of digital certificates and will conduct PNPKE engagement across the region.

Increase internet speed, coverage, and network. The internet and mobile network coverage will be expanded particularly in the GIDAs and GFAs (*See Chapters 1 and 7*).

Accelerate the rollout of e-government and the e-commerce roadmap (*See Chapter 6*).

Outcome 2: Water security, ecological integrity of water systems, and resiliency to water hazards attained

Effective water governance through Integrated Water Resources Management (IWRM) will be the overall strategy to be implemented in the sector.

Ensure water security through efficient water infrastructures and management. Concerned agencies and LGUs to ensure the efficient allocation and utilization of water, especially over competing water users.

Relatedly, localized implementation of the Philippine Water Supply and Sanitation Master Plan (PWSSMP), the National Irrigation Master Plan (NIMP), the National Water Security Road Map (NWSRM), and various Flood Master Plans for major river basins will be pursued. Given the geographical characteristic of the Bicol Region, these master plans will be localized and modified based on location-specific conditions, and the prioritization and timing of investments. The island provinces of Masbate and Catanduanes will be given focus in the formulation and implementation of these master plans. To address the projected tight water balance in the region, new water sources such as surface water will be explored. The improvement of water system facilities such as the Sagana at Ligtas na Tubig sa Lahat Program (SALINTUBIG) will be

continued.

Multipurpose reservoirs for water supply, hydropower, and flood mitigation will be pursued such as the Sipocot Dam in Camarines Sur, and Lanang (Baleno) and Mandaon Dams in Masbate will be explored. Public-Private Partnership (PPP) schemes will be considered to deliver the needed infrastructure facilities and services. A climate risk assessment will be integrated into the studies of water-related infrastructure to increase reliability and economic life. (*see Chapter 16*)

Strengthen the participation of local communities in improving water and sanitation management. LGUs and concerned agencies will continue spearheading the efforts to improve water and sanitation in the region, in coordination with the DENR in watershed rehabilitation and the DILG in the provision of training programs in water supply development and management, including behavioral change communication to eliminate the practice of open defecation.

Develop applicable wastewater systems in urban areas. In coordination with those in charge of

the septage management program, the expansion of sewerage systems will be explored in urban areas like Legazpi City and Naga City. A National Sewerage and Septage Management Program (NSSMP) subsidy grant for sewerage and septage management programs (SMP) will be put in place. Capacity development regarding sewerage systems will be planned and integrated with other infrastructure. PPP schemes will likewise be encouraged in the provision and operation of septage treatment facilities.

Continue to pursue climate-proofing for irrigation development.

Disaster-resilient irrigation facilities will be adopted to mitigate the impacts of climate change and water-related hazards. This will be done through bio-engineering and structural and non-structural measures.

Optimize the use of funds and improve the technical capacity for irrigation development and management of facilities. To sustain irrigation development, investments will be increased for the construction and rehabilitation of existing systems, and in enhancing the technical capacity of irrigation engineering, hydrology, and water resources management.

Prioritize flood mitigation and coastal protection infrastructure with hybrid systems. A combination

of nature-based solutions (NBS) and engineered or gray structures will be promoted. Floodplains, wetlands, and forests will be restored and enhanced to temporarily store and dampen flood peaks using NBS; while engineered structures such as flood walls, embankments, and detention ponds will be skillfully designed in combination with NBS. In addition, soft infrastructure for flood mitigation will still be pursued. The design and construction of flood mitigation structures and NBS will be based on ecosystems-wide or basin-wide master plans formulated under the principles of IWRM such as the Bicol River Basin Master Plan. Urban flood mitigation infrastructure will consider the upstream and downstream impacts based on comprehensive science-based studies such as flood modeling studies.

Improve data monitoring systems.

Investments and resources for detailed water data collection need to be provided. A rationally designed network for long-term data monitoring on surface water, groundwater, water quality, and sediment data will be established. Proper (statistically/physically-based) temporal and spatial sampling frequency of data collection will be ensured. Moreover, a decision support system for purposes of science-based water resources planning and management as well as for multi-stakeholder consultation and public participation will be developed and maintained.

Outcome 3: Affordable, accessible, reliable, and clean energy provided

Invest in renewable energy.

Encourage investments in renewable energy through the provision of government subsidies and incentives. This will ensure a more sufficient, stable, and affordable power supply in the region. The 29-megawatt (MW) Palayan Binary

Geothermal Power Plant Expansion Project in Sorsogon will expand the Energy Development Corporation's capacity of the existing 130 MW Bacon-Manito (BacMan) geothermal facility. This low-carbon emission project will reduce the country's carbon emissions by

around 72,000 tons per year.

Lower electricity rates. This can be done through the following: (a) removal of value-added tax on systems loss charges; (b) capacity additions to the existing geothermal plants; (c) *Murang Kuryente* Act; and (d) Retail Competition Open Access. The island provinces of Masbate and Catanduanes will be interconnected to the Luzon Grid for more reliable and affordable electricity rates.

Reduce systems loss of Bicol ECs.

Systems loss in electricity is categorized as technical loss, non-technical loss, and administrative loss. In lowering the system's loss, the ECs in the region will undertake the following: (a) reinforce grid security; (b) properly locate distribution transformers; (c) install smart metering; (d) prevent meter tampering; (e) invest in technology; (f) upgrade equipment; and

(g) reduce billing irregularities by using mobile meter reader.

Encourage investment regionwide in clean power generation.

The region will continue its role as a geothermal energy supplier to the Luzon Grid. Investments in waste-to-energy and other renewable energy projects such as the Del Gallego Geothermal Power Project will be encouraged to provide an environment-friendly power supply and affordable power supply.

Explore other renewable energy sources.

Hydropower, wind, wave, and solar energy such as the Lanang (Baleno) and Mandaon multi-purpose dam projects, and the Catanduanes wind and solar energy development projects, will be explored and provided funding if found feasible.

Outcome 4: Enhanced support to social development provided

Education

Construct a safe, disaster-resilient, and conducive place for learning.

The DepEd will adopt measures to strengthen its capacity to identify gaps and needs to better allocate resources for classrooms and other facilities including the necessary human resources. This will minimize delays in the construction of new school buildings and classrooms in public schools (*See Chapter 4*).

The DepEd and DPWH will strengthen coordination and jointly enforce policies and guidelines on the implementation of the Basic Education Facilities Fund (BEFF) to ensure that school buildings and classrooms that are designed and built are disaster-resilient.

Schools will be encouraged to prepare a school site development plan based on the LGU comprehensive land use plan to have breathing space for learners.

The DPWH will continue to provide fund support to LGUs for the construction of evacuation centers. This is to avoid the use of schools as evacuation centers during disasters and the consequent displacement of students and disruption of classes.

Health

Construct and upgrade the health facilities in the region.

Intensify the construction and rehabilitation of health-related facilities such as hospitals, testing laboratories, and quarantine facilities that will address the gap in

healthcare infrastructure in the region. Access and improved quality of health care particularly among the vulnerable groups will be achieved, and the capacity of the region to prevent diseases, promote health, and prepare for and respond to threats and challenges to health will be realized (*See Chapter 4*).

The DOH will continue to develop policies and strategies that will ensure the functionality and sustainability of health facilities and the satisfaction of human resource requirements. The formulation of policies and strategies will be done in coordination with concerned NGAs and LGUs.

Temporary treatment monitoring facilities (TTMFs) will be constructed to cater to COVID-19 cases, in addition to the construction of isolation buildings.

Housing

Construct disaster-resilient housing facilities in the region by adopting the “Build Back Better” principle. The region is frequently hit by natural calamities, thus housing facilities will be constructed to withstand these calamities. Social housing programs and projects will be constructed in government idle lands. LGUs will identify these government idle lands and develop a system of land inventory to better identify areas for urban growth and planned areas for human settlements through their CLUPs.

Solid Waste Management

Ensure suitable and sustainable SWM. The Ecological Solid Waste Management Act of 2000 (RA 1003) will be fully implemented to protect the environment through the provision

of solid waste disposal facilities such as SLFs through PPP. The clustering of LGUs for common SWM facilities will be encouraged to take advantage of economies of scale and cope with the high upfront cost of building and operating such facilities. Waste generation will be reduced through prevention, reduction, recycling, and reuse, and massive IEC campaigns on solid waste management policies, laws, projects, and best practices will be conducted.

Ban single-use plastics. To promote the non-usage of single-use plastics (e.g., straws, food wrappers, grocery bags, instant food packaging), ordinances will be imposed and strictly implemented to minimize the occurrence of non-biodegradable wastes that pollute the water bodies and affect marine species.

Minimize the spread of healthcare waste at the source. Health care waste management system will be institutionalized in health facilities across the Bicol REGION through investment in training and communications. Treatment and disposal facilities for toxic, infectious, and hazardous wastes in the region will be provided to minimize the spread of diseases.

Construct security and safety management service facilities. Police stations and/or outposts, fire stations, jail facilities, evacuation centers, and emergency response centers such as 911, will be constructed. The concerned LGU will provide the required lot, and the agency will provide the building and equipment (*See Chapter 14*).

Implement peace-promoting infrastructure programs and projects. (*See Chapter 14*).

Legislative Agenda

Table 13.4 presents the proposed legislations to expand and upgrade infrastructure.

Table 13.4 Legislative Agenda to Expand and Upgrade Infrastructure

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
National Transport Policy Act	To guide all entities involved in the transportation sector to prepare policies on how to achieve a safe, secure, efficient, competitive, environmentally sustainable, and people-oriented transportation system.	DOTr / DPWH
Magna Carta for Commuters	To address the long-standing plight of Filipinos using public transport by laying down the rights of the commuting public.	DOTr
Creation of an independent body for transport safety and security	The independent body will investigate transport accidents and provide transport safety recommendations/guidelines.	DOTr
National Broadband Act	To institutionalize the National Broadband Program, public safety, and emergency communications and policies for the use of other passive infrastructure.	DICT, DOE, DND, DPWH
Amendment to the National Building Code	To amend certain provisions of the National Building Code by incorporating minimum electronic requirements in buildings (i.e., telecommunication facilities in multi-dwelling buildings, government buildings, and office/commercial buildings).	DICT, DPWH
Creation of the Department of Water Resources (DWR)	To address the weak and fragmented institutional set-up in the sector by streamlining all water-related functions in the government, and separate resource regulation from economic regulation.	NEDA
Creation of the Water Regulatory Commission (WRC)	To create a business and regulatory environment that is level, transparent, and conducive for public and private domestic and foreign investment in water supply and sanitation (WSS) services by implementing fair, just, and reasonable tariffs, rates, and charges for water supply and sanitation services.	NEDA
Establish a Department of Energy Bicol Regional Office	To ensure a continuous, adequate, and economic supply of energy in the Bicol Region through the integrated and intensive exploration, production, management, and development of the region's indigenous energy resources.	DOE
Enhance Energy Regulatory Commission	To provide a more streamlined and stronger power regulatory body.	ERC
Waste-to-Energy (WtE) Act	To provide a regulatory framework for facilities utilizing WtE	DOE / DENR
Single-Use Plastic Product Regulation Act	To phase out and eventually totally ban the use of single-use plastics in the country	DENR - EMB
Institutionalization of the National Government – Local Government Unit cost-sharing scheme for SWM programs	To address the increasing volume of waste brought upon by rapid urbanization	DENR – EMB

14

**Ensure Peace and Security,
and Enhance Administration
of Justice**

Ensure Peace and Security, and Enhance Administration of Justice

Peace and security, and an efficient administration of justice are critical in providing the enabling environment to ensure sustained economic growth. In pursuing economic and social transformation, the RDP 2023-2028 puts forward the whole-of-government approach to achieve lasting peace and security, as well as an enhanced justice system characterized by integrity, fairness, and accessibility.

The government's focus is to strengthen peacekeeping and peacebuilding efforts by enhancing the effectiveness of military and civilian approaches in the protection of the general public. A safe and secure environment is manifested where there is an adequate level of public order, and people conduct their daily lives and activities without fear of undue physical harm from any form of violence. Peace and security, particularly in the GFAs (See *Chapter 1*) require normalcy in community life where guns are silenced, food and basic services are sufficient, and general signs of progress are evident.

A stable and accountable justice system will inspire trust and confidence among stakeholders. Economic justice will be the pillar of a strong and vibrant economy, anchored on a sector-based approach to drive public engagement and trust in the justice system.

Subchapter 14.1 Ensure Peace and Security

Peace and security are manifested where there are equitably enforced laws, and the lives, properties, freedoms, and rights of individuals are protected. Criminal and motivated violence is kept at a minimum, and criminal elements are pursued, arrested, and detained.

Intensified peace-building initiatives, such as localized peace engagements by the local governments, will stabilize security in many areas of the Bicol region. The implementation of development projects will open better opportunities and provide a violence-free environment

in conflict-affected communities.

Investing in commitments to peace and security will continue. The former combatants, including their families, will be provided with assistance to be mainstreamed and returned to civilian life. LGUs will facilitate the whole-of-society approach to ensure peace and security; corroborative action on law enforcement operations will be intensified; as well as disaster response will be strengthened. The modernization of the armed forces and other security sector agencies will continue to be pursued.

Assessment and Challenges

Assessment

Peace and security are pursued. Several peace and development efforts were introduced by the government to address local issues. Related initiatives were carried out to lessen and restrain criminal acts and violent activities of terrorist groups through harmonized public, private, and community activities in solving the insurgency issues. The presence of the government was felt in GFAs through the implementation of peace-promoting and catch-up socio-economic development programs and projects such as the SBDP.

Sustained law enforcement efforts stabilized the security of communities in GFAs resulting in improved access to the resources necessary for meeting basic needs and advancing health and well-being, and increased economic activities. However, despite the government efforts, 14 percent of the total barangays in Bicol region are still classified as GIDAs. In 2020, the Bicol region ranks second among the regions nationwide with the greatest number of GIDAs, next to Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). In 2021, 97 barangays were also considered as CAAs-CVAs in the region.

The implementation of the Peace and Development Program by the Regional Task Force to End Local Communist Armed Conflict (RTF-ELCAC) through the whole-of-nation approach under EO 70, s. 2018, fostered a more holistic and cohesive government response in addressing the interrelated armed conflicts. The local task forces were also activated to effectively deliver basic services to communities within the GIDAs. Key strategies in the National Action Plan on Preventing and Countering Violent

Extremism (PCVE) were also rolled out and localized.

The local peace engagements were initiated in communities affected by the presence of the Communist Party of the Philippines-New People's Army-National Democratic Front (CPP-NPA-NDF). Socioeconomic and legal assistance was provided to communist rebels who surrendered through the Enhanced Comprehensive Local Integration Program (E-CLIP) and community development interventions such as the *Payapa at Masaganang Pamayanan* (PAMANA) Program and the SBDP. The PAMANA Program set the foundations for conflict-sensitive development efforts and empowered partners for peace. From 2017-2021, PAMANA supported the implementation of socioeconomic and infrastructure projects in the communist-terrorist group (CTG)-cleared barangay under the SBDP.

Decrease in Criminality. In 2021, the average monthly crime index in the Bicol region was 2.68 percent which is a 68 percentage points decline from the previous year. It translates to about 2.68 index crime incidents per month for every 100,000 people. Index crimes, as defined by the PNP, involve crimes against persons and property. Crimes against persons include murder, homicide, physical injury, and rape, while crimes against property are robbery, theft, arson, carjacking/carnapping, and cattle rustling. The generally stable and low monthly crime rate can be attributed to the constant law enforcement operations, such as anti-illegal drug operations and community surveillance, and the continuous improvement of the competency of the police force.

The non-index crime rate monthly average for 2021 was 7.62 percent, which is a 67.5 percent decline from 11.28 percent in 2020. Non-index crimes include violations of special laws such as illegal gambling and violations of local ordinances. On the other hand, the Crime Solution Efficiency (CSE) rate was 64.86 percent in 2021. The high CSE is due to the consistent monitoring and resolution of cases and follow-up operations by investigators resulting in the identification and arrest of suspects.

Enhanced capacity to respond during disasters. The capacity of the security sector in terms of response to adverse impacts of natural hazards and other security threats was strengthened. This includes barangay-level capacity through the BFP-initiated Oplan *Ligtas na Pamayanan*. The Barangay Peacekeeping Action Teams (BPATs) as well as NGO teams in the region provided public safety training. The improvement in terms of disaster response also covers the adoption of standard operating procedures, activation of the Incident Command System/Center, and prepositioning of the relief and search and rescue actions and measures. However, data on population, critical facilities, and infrastructure exposed to natural and other security threats are still fragmented and incomplete.

Challenges

Institutionalizing peacekeeping interventions. Peace and development initiatives are not fully institutionalized,

especially at the local level. There are still gaps in assessing threats, programming responses, engaging communities, dismantling private armed groups, and strategic communications.

Enhancing logistical and technological capabilities. Criminality and threats to public safety continue to persist. There is a need for additional modern equipment and other logistical needs to aid law enforcement in ensuring cybersecurity. The rapid growth and sophistication of cybercrimes and cyberattacks have increased the vulnerability of data, people, and structures, thus, appropriate IT tools and training of PNP officers on cybercrimes are needed to apprehend cybercriminals.

Ensuring security, public order, and safety. Initiatives towards peace and security have substantially improved, however, there are still challenges, such as the continuation of criminal and terrorist activities and the need to improve processes of assisting former combatants in their return to civilian life, healing, and reconciliation. Also, natural hazards continue to threaten vulnerable groups as well as the GFA communities.

Other challenges include managing the region's territory and maritime domain and improving the force structure, capability, and material upgrade of the PCG, AFP, PNP, and other security sector agencies, which are critical to being more effective in undertaking internal and external security operations.

Targets

The region will ensure and sustain peace and order to enable the stream of social and economic activities. The Bicol RDP 2023-2028 targets to reduce conflict-

affected barangays and improve their access to basic services, and continuously reduce all forms of criminality.

Table 14.1.1 presents the indicators and targets on ensuring peace and security.

Table 14.1.1 Core Indicators on Ensuring Peace and Security

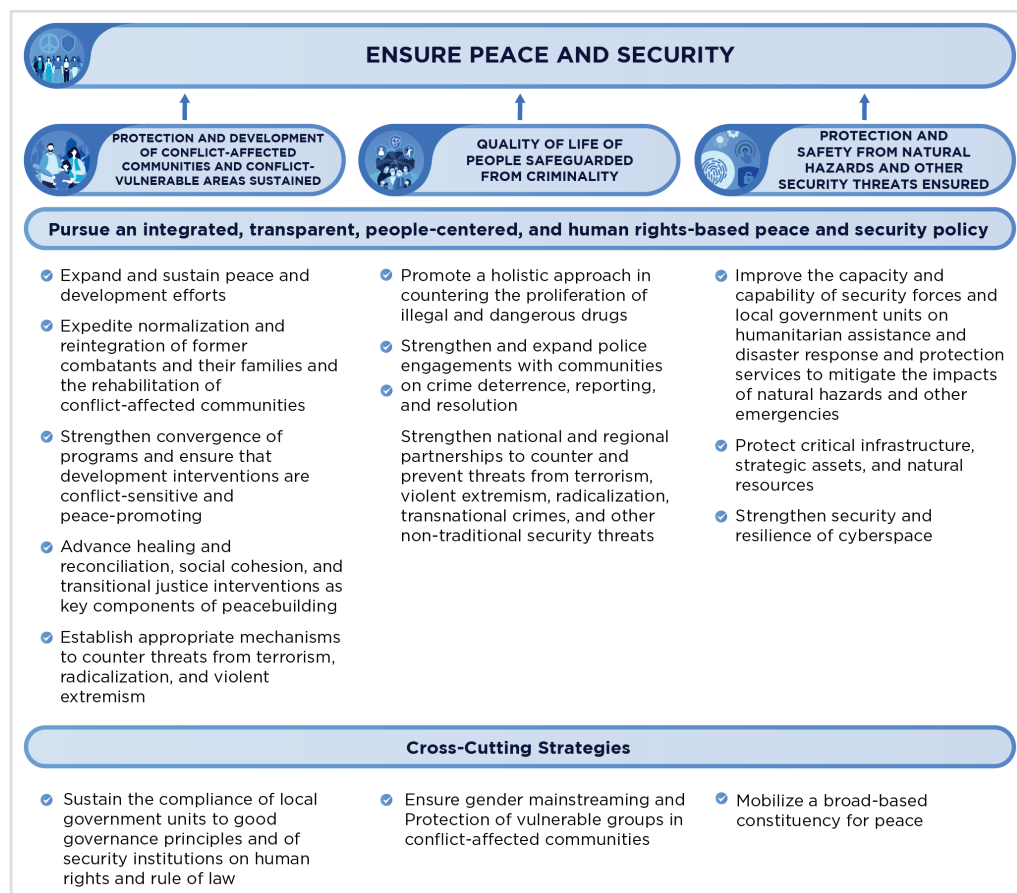
INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of Support to Barangay Development Program beneficiary-barangay provided with socioeconomic interventions	100% (2022)	100%						DILG-Report, RTF-ELCAC monitoring report 9th Infantry Division Philippine Army (9ID PA)	DILG, 9ID PA
Average monthly index crime rate reduced	3.45% (2022)	Decreasing						Crime Incident Reporting and Analysis System (CIRAS)	PNP
Police-to-population ratio improved	1:560 (2022)	1:555	1:545	1:535	1:525	1:515	1:500	PNP reports	PNP
Percentage of cybercrime incident reports processed/closed and remediated	80% (2022)	Increasing						DICT reports, PNP reports, NBI Cybercrime Unit Reports	DICT, PNP & NBI

Strategy Framework

Peace and security have an intrinsic relationship with sustainable development. In accomplishing the peace agenda, the required cooperation and collaboration of all stakeholders from government agencies, academe, the private sector, NGOs, and CSOs will be consistently pursued. Through the continued partnership, the Bicol RDC and Regional Peace and Order

Council (RPOC) will promote and strengthen mainstreaming interventions on peace and development using conflict-sensitive and peace-promoting standards in support of PAPs promoting peace, reconciliation, and healing among former rebels. Further, the whole-of-nation approach will be carried out by all of the members of the RDC and RPOC with the support of local communities.

Figure 14.1.1 Strategy Framework to Ensure Peace and Security



Strategies

Outcome 1: Protection and development of conflict-affected communities and conflict-vulnerable areas sustained

Expand, advance, and sustain peace and development efforts.

To address security issues and enhance access to socioeconomic resources and opportunities for the people, peace, and development efforts will be expanded and sustained. The full implementation of the RTF-ELCAC-formulated umbrella program anchored on the peace and development framework needs to be expanded to address the root causes of insurgencies, internal disturbances and tensions, and other armed threats at the grass-roots level. The delivery of basic

services as part of social development packages in GFA areas needs to be given priority and sustained.

The Bicol region will be initiating localized peace engagements, recognized as an appropriate strategy for achieving peace and security at the grassroots level. Community problem-solving sessions and local peace dialogues will be effectively undertaken.

Expedite normalization and reintegration of former combatants and their families,

and the rehabilitation of conflict-affected communities.

Rehabilitation and catch-up development programs, such as E-CLIP and BDP, to include social, financial, and socioeconomic assistance for the recovery of conflict-affected communities will be fast-tracked and built on the gains of the momentum set in the implementation of the whole-of-nation approach to development, particularly the rehabilitation and development of conflict-affected communities. The delivery systems of socioeconomic support packages for decommissioned combatants, their families, and vulnerable groups (children, the elderly, PWD, indigenous groups, and internally displaced persons) in GFAs will be made more efficient and effective.

Infrastructure projects will be provided to GFAs such as roads, bridges, schools, health centers, markets, ports, and permanent housing units in village-type communities where there is security for the former rebels (FRs) and their families with access to basic amenities.

Strengthen convergence of programs, and ensure that development interventions are conflict-sensitive and peace-promoting (CSPP).

The CSPP principles will be advocated for mainstreaming and application in the various aspects of development planning and peace-building PAPs. Convergence efforts of government entities, LGUs, Peace and Order Councils (POCs) at regional and local levels, and other stakeholders will be undertaken for the effective and sustainable delivery of basic services to GFAs as provided for under EO 70. Government-led coordination, collaboration, and complementation mechanisms will be established among stakeholders in the implementation of all peacebuilding and development initiatives.

Advance healing and reconciliation, social cohesion, and transitional justice interventions as key components of peacebuilding.

The Bicol RDC and RPOC will coordinate with the Office of the Presidential Adviser on the Peace, Reconciliation, and Unity (OPAPRU) and LGUs towards attaining the peace and development agenda. The PAMANA program of the OPAPRU will be continued to implement and provide for the specific needs of the communities in conflict-affected areas.

Moreover, expert interventions in dealing with former combatants and child soldiers will be provided by the DSWD Region 5 and its local counterpart. These include psychosocial interventions, sustainable livelihood programs, and other protective services.

Establish appropriate mechanisms to counter threats from terrorism, radicalization, and violent extremism.

The Bicol region's security and public safety campaign will be strengthened. The government will continue to be proactive and steadfast in its efforts to sustain public order and safety, and maintain a peaceful environment by actively engaging the private sector and the community. The Bicol region, being the gateway to the Visayas and Mindanao, is exposed to different public disturbances from CTGs who want to gain access to Luzon. The security forces in the region will be strengthened by providing manpower and equipment support.

Legal offensive initiatives, and intensified manhunt operations by the Philippine Army (PA)-AFP against the remaining members of the CTGs of the CPP-NPA-NDF in the Bicol region will be implemented. Further, security for critical infrastructures, e.g., roads, telecommunication towers, and lifeline

facilities, will be provided by the military, police, and LGU peace and order enforcers.

Moreover, community mobilization will be enhanced, such as the PNP program on *Kabataan Kontra Droga at Terorismo* (KKPT), which protects and capacitates the youth sector against illegal drugs and violent extremism. The KKPT operation involves a reporting tool for the observed irregularities in society. The Tactical Operations Group 5 of the Philippine Air Force will continue with

its Campus Peace and Development Fora activities promoting awareness of peace and security-related thrusts and priorities of the government and other relevant discussions with students and the youth.

Information and education campaigns will be conducted and advocated for the government's efforts in maintaining a safe and peaceful community. People's security from external threats will be ensured, especially the women, children, and elderly, to feel safe in performing their economic and social activities.

Outcome 2: Quality of life of people safeguarded from criminality

Promote a holistic approach to countering the proliferation of illegal and dangerous drugs. The PNP and Philippine Drug Enforcement Agency (PDEA) will be resolute in law enforcement coordination and remain aggressive through their intelligence-driven operations on dangerous drugs related transactions and/or activities. Stringent monitoring and accounting of high-value individuals, street-level individuals, and drug groups will be continuously asserted.

Drug-clearing operations at the local level will be strengthened through the Local Anti-Drug Abuse Councils (LADACs) at city/municipal/barangay levels. The PNP and PDEA will implement measures for the reactivation and functioning of the LADACs, particularly the Barangay ADACs, and advocate for community-based drug rehabilitation (CBDR) programs. The CBDR is a holistic process that includes health promotion and prevention, assessment and screening, drug treatment, family and community services, and aftercare schemes closest to the community or people.

Strengthen and expand police engagements with communities on crime deterrence, reporting, and resolution. Policing in the barangays will be intensified with the help of communities through the Barangay Information Networks (BINs) and BPATs. The BINs will assist with the operations of the PNP, while the BPATs will serve as the primary operators in the conduct of the Community-Oriented Policing and Public Safety System.

The POCs, the government's platform for stronger collaboration among the LGU, law enforcement, and the community to fight criminality, illegal drugs, and violent extremisms, will efficiently perform their tasks by harmonizing and effectively implementing peace and order and public safety activities. Likewise, the POCs will serve as partners in the implementation of EO 70.

Engagements between police and communities will be strengthened by establishing additional PNP stations in cities and municipalities. To attain this, LGU support will be tapped through appropriate lot donations. In addition,

the agency will pursue recruitment and training to produce quality police officers. The logistics and equipment for the police system will also be developed. The necessary equipment for ICT system upgrades will be prioritized for procurement to advance the anti-criminality strategies and database establishment and preservation of relevant information and documents.

On juvenile delinquencies, the PNP will strengthen coordination with DSWD for appropriate interventions for minor offenders. Both agencies will adhere to and implement the nation's Comprehensive National Juvenile Intervention Program.

Strengthen national and regional partnerships to counter and prevent threats from terrorism, violent extremism, radicalization, transnational crimes, and other non-traditional security threats.

The Bicol region will adhere to the governments' mechanisms for inter-regional cooperation of agencies in handling the CTGs' operations, inter-regional recruitment, and other activities across regional borders. Rigorously collaborative, intelligence-driven operations between national and regional offices of the security sector against notorious criminal groups or personalities will be strengthened and intensified.

The technical, communications, and

electronic landscapes of the country as a whole have been and are continually changing. Cybercrimes, a faster-growing non-violent crime rampantly affect businesses and individuals, and threatens the substantial and growing reliance of commerce, governments, and the public on the conduct of business, carrying messages, and processing of information. Cybercrimes go beyond the technical, transnational dimension and involves offenders with the deliberate intention of attacks to exploit the potential weaknesses that are present in the online or digital infrastructure. The Bicol region will be in full cooperation with the national government's strategy for strengthening cyber-security by pursuing the legislative enactment or amendment of existing laws to address cyber threats. The PNP Region 5 will improve its approaches to fighting cybercrimes by aggressively pursuing the improvement of its ICT infrastructure support facilities, and other related programs such as the Anti-Online Sexual Abuse or Exploitation of Children (OSAEC) will be prioritized.

Similarly, mandates and functions of various agencies relative to coastal management and maritime security will be reviewed and harmonized to ensure efficiency and effectiveness in addressing maritime security threats, while the modernization of the PCG and relevant maritime security institutions will be actively pursued.

Outcome 3: Protection and safety from natural hazards and other security threats ensured

Improve the capacity and capability of security forces and LGUs on Humanitarian Assistance and Disaster Response (HADR) and protection services to mitigate the impacts of natural hazards and other emergencies.

The effective management of disaster risks in the region will be anchored on the implementation of the strategies

underpinning the National Disaster Risk Reduction and Management Plan (NDRRMP) 2020-2030. The BFP will conduct fire safety inspections as a precaution and prevent casualties during disasters. Further, the BFP Modernization Act will be fully implemented to ensure more responsive fire protection services across the Bicol region.

Various collaborated interventions among frontline agencies (PNP, BFP, OCD, DILG, LGUs, and DSWD) to mitigate the impacts of natural and man-made disasters will continue to be implemented, such as the Oplan *Paghalasa* as a response to typhoons and their damaging effects; Oplan *Ligtas na Pamayanan / Ugnayan sa Barangay*, etc. Related programs that enable LGUs able to revisit, improve, and implement disaster risk reduction and management plans, such as the OCD-led *Gawad Kalasag Awards*, will continue to be implemented.

The region will intensify its humanitarian assistance from various stakeholders including the private sector. Coordination and collaboration with reservists and other private individuals/entities or groups of volunteers for disaster response will be explored.

Protect critical infrastructure, strategic assets, and natural resources. The military, police, and LGUs will join forces on guarding and protecting critical government infrastructure assets and major/priority programs and projects, such as roads

and bridges, telecommunication, and other utility facilities, among others. The regional and local entities will continue to safeguard the protected areas in adherence with existing laws.

The coastal barangay information networks and *bantay-dagat* volunteer organizations will be mobilized, and reporting systems will be established in strategic locations such as marine pollution centers.

Strengthen the security and resilience of cyberspace.

Cybersecurity in the region will be strengthened. Interventions on information and communications technology will include the creation of a cybercrime emergency response teams, and upskilling of relevant agencies, such as the DICT, NBI and PNP in partnership with other public and private institutions. Further, the cyber defense component will be strengthened and incorporated into the modernization program of the PNP and AFP. Also, the cybersecurity curriculum will be mainstreamed in academic and technical education platforms.

Cross-cutting Strategies

Sustain compliance of LGUs with good governance principles and of security institutions on human rights and rule of law.

Good governance and the protection and promotion of human rights play a significant role in peacekeeping and peacebuilding interventions. Efficient and inclusive partnerships with communities will be strengthened to gain back people's trust and confidence in the rule of law, and human rights-based security institutions. Further, better reward systems and mainstreaming efforts will be intensified, and appropriate penalties on violators will be imposed.

Ensure gender mainstreaming and protection of vulnerable groups in conflict-affected communities.

The protection of individual rights will be promoted in conflict situations and post-conflict recovery. Favorable actions will be taken for the welfare of vulnerable groups, including children, youth, the elderly, persons with disability, and internally displaced persons.

The mainstreaming of GAD will continue to be advocated and promoted in the region to effectively achieve conflict-sensitive, peace-promoting interventions, that are responsive to the needs of every

Bicolanos. The Regional Gender and Development Committee (RGADC) will continue to guide the region in ensuring gender equality and equity in implementing programs and projects. Further, the PNP will continue to take appropriate and necessary actions on cases relative to violence against women and children (VAWC). The establishment of VAWC desks in police stations will be sustained and maintained to provide access to vulnerable individuals and facilitate the filing of complaints against VAWC.

Favorable actions will be carried out to protect and promote women and gender right, as well as safeguard the welfare of vulnerable groups, including children, youth, elderly, PWDs, and internally displaced persons, during conflict situations and post-conflict recovery.

Mobilize a broad-based constituency for peace. Advocacy

activities of the RTF-ELCAC, such as the *Ugnayan sa Barangay*, and Campus Peace and Development Fora among others, are specialized avenues in disseminating government initiatives toward peacekeeping and peace-promoting strategies. The region will support the national thrust on mainstreaming peace education in formal and non-formal learning platforms. The peace education program will be pursued, such as the recruitment of students and youth to the Reserve Officers' Training Corps (ROTC) to promote nationalism and inculcate awareness of radicalism, and idealism, as well as disclosure of the true nature and intent of the CPP-NPA-NDF.

The advocacy and promotion of a sustained culture of peace campaigns will be strengthened. The establishment of a National Peace Institute under the OPAPRU will be pursued to institutionalize and sustain the gains of the general peace process.

Legislative Agenda

The following are the priority legislative measures that the region will support to contribute to the achievement of the chapter outcomes.

Table 14.1.2 Legislative Agenda to Ensure Peace and Security

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Amendment of the National Defense Act	The National Defense Act of 1935 which provides for national defense policies, principles, and concepts, is proposed to be updated. It will codify various laws on national defense, the AFP, and the civilian bureaus, to streamline and professionalize the defense bureaucracy.	Department of National Defense (DND)
Amendment of the Comprehensive Dangerous Drugs Act of 2002	Enhancement of certain provisions of the Act to address the present drug situation in the country, particularly the implementation mechanism function of concerned government agencies, and the reorganization of PDEA.	PDEA
Mandatory Citizens' Service Training Act	It aims to unify the training programs of the current National Service Training Program into a single and comprehensive citizens' civil and military training.	DND
Cybersecurity Policy Framework	Institute a national policy framework on cybersecurity and/or enactment of legislation or amendment of existing laws to address cybercrimes/threats.	DICT
National Land Use Act	Settlement of land disputes to address internal armed conflict as it is also largely rooted in long-standing disputes over land resources. The enactment of the National Land Use Act will address this issue being capitalized by the CTGs.	DAR

Subchapter 14.2 Enhance Administration of Justice

The fundamental rights of people include freedom from fear, freedom from want, and freedom to live in dignity. Access to justice and the rule of law are the very bedrock of a stable society. Access to justice and the protection of humans need to be guaranteed to protect and further improve the well-being of Bicolanos. The accomplishments during the past regime set the stage for further enhancement in terms of the institutional, policy, and process framework of the justice system in the region.

The Bicol RDP 2023-2028 provides the outline of strategies that will enhance the administration of justice aimed at improving the civil, criminal, commercial, and administrative justice systems and enhancing efficiency and accountability in the justice sector. The government will maximize the use of digital platforms to ensure enhanced administration of justice. It will further strengthen the coordination and cooperation among justice sector agencies, and continuously streamline and improve processes within the different pillars of the justice system.

Assessment and Challenges

Assessment

Over the past years, the justice sector policy reforms and key legislations remain to be elusive to attain despite the developments from national to local engagements. In Bicol, the improvement is with the establishment of the Justice Zone (JZ) in 2019. The first JZ launched in the region is in Naga City, which is the sixth of the nine JZ created by the Justice Sector Coordinating Council (JSCC) in the entire country as of 2022. The Naga

City JZ seeks to improve the sector's efficiency and accountability and helps facilitate the delivery of swift and fair administration of justice in the region through the speedy resolution of cases filed in court.

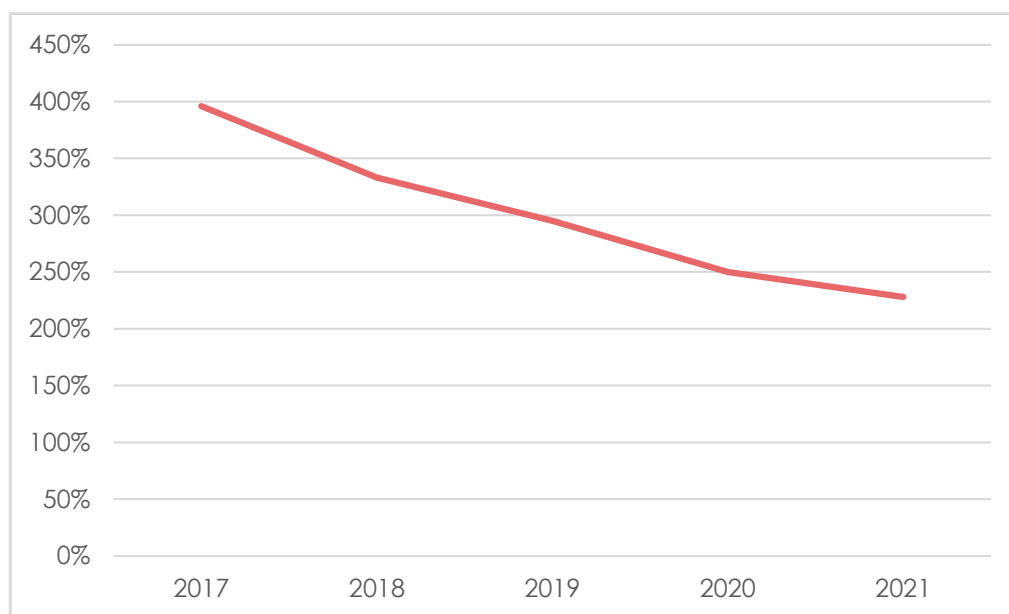
The Department of Justice (DOJ) reported insufficient human resources which contributed to the low disposition of cases and further congested case dockets. The DOJ, however, reported relevant accomplishments including the successful prosecution of drug cases, and

trafficking in persons with convictions. The DOJ Region 5 implemented the Witness Protection Program and housing of witnesses covering 93 percent of the total applicants from 2017-2022.

The jail congestion rate is decreasing as reported by the BJMP Region 5, with an average of 228 percent in 2021 from the 396 percent congestion rate in 2017 (See Figure 14.2.1). With the end view of further reducing jail congestion in the region, the Bicol RDC through Resolution No. 48, s. 2020, enjoined LGUs to donate lots for the construction of jail facilities, to ensure protection and humane support towards rehabilitation of the PDL.

The rehabilitation of inmates by the BJMP Region 5 was done in partnership with other line agencies and CSOs. Various interventions such as livelihood, psychosocial activities, and religious and behavioral management initiatives were introduced. Intensified capacity-building activities for personnel and the on-time release of qualified PDL were initiated.

Figure 14.2.1 Jail Congestion Rate, Bicol Region, CY 2017-2022



Source: BJMP

Challenges

Strengthening coordination among agencies involved in the five pillars of the justice system. Overall, the criminal justice system of the nation remains fragmented. Traditionally, the five pillars of the justice system perform their respective roles and mandates independently, narrowing their focus to their spheres of authority with less coordination and complementation of activities. As an immediate and adequate redress, it resulted to procedural inconsistencies and lapses in policy guidance. To address this, there is a need to continue to collaborate and fully coordinate to streamline the administration of the justice processes of the five pillars of the criminal justice system in the country, namely, (a) law enforcement; (b) prosecution; (c) the courts/hearing of cases; (d) correctional/rehabilitation; and (e) the re-integration to the community.

Increasing the human resources of the justice sector. The limited resources (or

the lack thereof) which emanates from the low annual budget of the judiciary and justice-related sector agencies in the executive branch, after the shortage of courts, and insufficient human resources, put pressure on and weaken the justice sector, consequently resulting in the buildup of caseloads and backlogs, as well as congestion of jails in the region. Prosecutors and public attorneys are assigned to two or more courts simultaneously despite laws prescribing the ideal ratio (1:1) of Prosecutor and Public Attorney's Office (PAO) Lawyer to courts.

Improving the disposition of cases. Backlogs and delays in resolving cases in the region have not improved much over the years. There is the uneven ratio between public attorneys, prosecutors, and judges vis-à-vis the caseloads contributes to the piling up of cases and delays in case hearings. The cases handled and/or filed outnumber the cases resolved in normal operations, resulting in backlogs that further aggravate jail congestion.

Pursuing reforms to decongest jail facilities. Overcrowding in jails and prisons has been one of the major challenges of the region despite the continuous decrease in jail congestion rate for the past years. A jail cell is considered congested when the number of inmates

occupying such cell exceeds the standard occupant capacity of 4.7 square meters per inmate. Jail congestion needs to be addressed as it results in health and sanitation problems, and negatively affects the rehabilitation of PDL.

Targets

The Bicol RDP 2023-2028 aims to: (a) enhance the administration of justice by improving civil and criminal justice systems; (b) improve access to quality

free or affordable free legal assistance; (c) improve the quality of life of PDL; (d) and ensure their integration into communities.

Table 14.2.1 shows the indicators and targets to enhance the administration of justice.

Table 14.2.1 Core Indicators to Enhance Administration of Justice

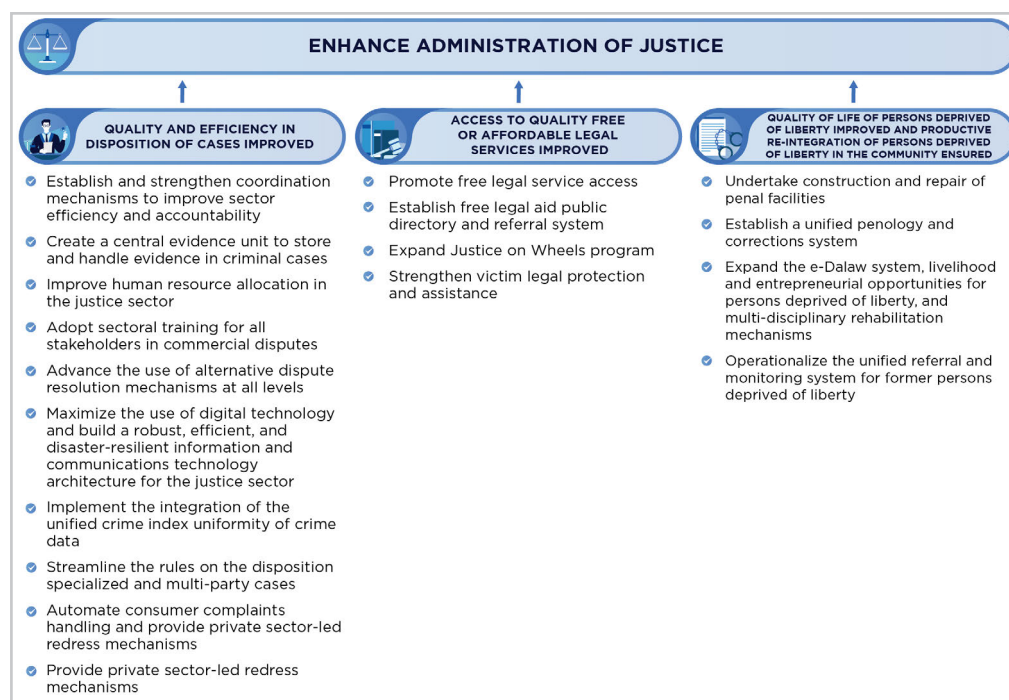
INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
Percentage of successful prosecution improved (conviction vis-à-vis acquittal)	96.76% (2021)	96.77%	96.78%	96.79%	96.80%	96.81%	96.82%	DOJ Annual Report	DOJ
Completion rate of cases handled improved	47.86% (2021)	48.10%	48.68%	49.27%	50.05%	50.85%	51.67%	PAO Annual Accomplishment Report	PAO
Number of Justice Zones established increased	1 (2022)	0	2	0	3	0	4	DOJ Annual Report	DOJ
Public Attorney to court ratio improved	1:2 (2021)	1:1						PAO Annual Accomplishment Report	PAO
Prosecutor to court percentage ratio improved	45.6 (2021)	45.6	55	73	82	91	100	DOJ Plantilla	DOJ
Average congestion rate in jail and prison facilities reduced	145% (2022)	138%	124%	111%	100%	90%	81%	BJMP report	BJMP

Strategy Framework

The strategy framework emphasizes the need for coordinated action to enhance justice administration. Efforts will be made on the improvement of the quality and disposition of cases; access to quality, free, or affordable legal services; and quality of life of the PDL.

The enhanced administration of justice supports the attainment of SDG 16: Peace, Justice, and Strong Institutions, and will continue to pursue a stable, secure, and comfortable life as espoused in the *Ambisyon Natin 2040*.

Figure 14.2.2 Strategy Framework to Enhance Administration of Justice



Strategies

Outcome 1: Quality and efficiency in disposition of cases improved

Establish and strengthen coordination mechanisms to improve sector efficiency and accountability. The justice sector will improve and reform court procedures to improve judicial efficiency and integrity to maintain the trust and confidence of the people in the region. Access to a justice system that is accountable and independent will be provided in a manner that is prompt, fair, efficient, and effective. The DOJ Region 5, through the JSCC, will improve its coordination mechanisms to streamline criminal investigation, prosecution, and case management processes, including heinous crimes and illegal drugs. The capacity and skills of the justice sector professionals and institutions will be enhanced to strengthen governance and the overall justice system.

The JZ in Naga City, will introduce and implement new mechanisms of coordination and cooperation of relevant agencies to speed up and deliver the resolution of cases filed in court and decongest jails. The establishment of additional JZs in the region will be pursued specifically in Legazpi City, Masbate City, and Virac, Catanduanes. Moreover, the creation of Justice Hubs in other LGUs will be explored to bridge access to justice for all and build effective, accountable, and inclusive institutions at all levels. It will serve as a one-stop venue for collaboration with other legal defenders as well as a dedicated community of legal practitioners, together with prosecutors, public attorneys, the police, and the jail officers to enhance the administration of criminal justice services. Also,

legislation and policies will be pursued to institutionalize coordination among prosecutors and law enforcers such as the PNP and NBI, among others.

Create a Central Evidence Unit (CEU) to Store and Handle Evidence in Criminal Cases. The region will adopt the national priority on the establishment of CEU to store and handle case records of the Justice Hubs. It will provide operational support for the systematic and organized procedure of storage of evidence. This system will facilitate the electronic and physical validation and documentation of evidence gathered by law enforcement, prosecution, courts, and other relevant agencies. This will also ensure that data seized during the investigation remains unaltered through trial.

Improve human resource allocation in the justice sector. Rationalization of human resources in the justice sector of the Bicol region will adopt its nationwide policy on a sector-based approach in creating new and appropriate positions by matching the creation of courts with corresponding increases in the number of prosecutors, public attorney's positions, and create more justice sector positions to deal with the workload and cause congestion.

Adopt sectoral training for all stakeholders in commercial disputes. The region will adopt the national level initiative on the sector-based approach in the settlement of commercial disputes, to include intra-corporate cases, intellectual property cases, cases involving admiralty and maritime laws, financial rehabilitation and liquidation of insolvent debtors, competition cases, and cybercrime cases, among others. Sectoral capacity building will be conducted, and information exchange activities will be

provided to facilitate case disposition with minimal delays.

Advance the use of Alternative Dispute Resolution mechanisms at all levels. Available rules of courts or other judicial recourse will be explored to include the Alternative Dispute Resolution (ADR) mechanisms, such as the Barangay Justice System or the *Katarungan Pambarangay*. In collaboration with DILG, this will reassess exemptions of cases that may be brought before the *Lupong Tagapamayapa*, particularly concerning residence and thresholds of criminal cases. It will also include the expansion of its limited dispute jurisdiction involving parties that reside within or adjoining cities/municipalities, and the adjustment of penalties based on the Revised Penal Code.

The use of ADR in the public and private sectors in the region will be guided by the Philippine legal framework following international standards. Capacity building, advocacy, and informative programs on the different ADR mechanisms will be undertaken.

Maximize the use of digital technology and build a robust, efficient, and disaster-resilient ICT architecture for the justice sector. The electronic and multimodal means of providing services and communication will be further enhanced by maximizing the use of digital technology in the overall justice automation and digitalization of processes. The implementation of Continuous Trial Guidelines which reduces time gaps between trial procedures will further the digital transformation of the justice sector processes by introducing digital justice procedures, such as online hearings and digital case management systems.

Specifically, the Bicol region will promote and support the implementation of the National Justice Information System (NJIS) through the Single Carpeta System, otherwise known as the Inmate Management Information System. This is a nationwide comprehensive case monitoring and information system that collects and shares case information into a centralized database for sentence monitoring and management of detainees, PDL, parolees, and pardonees. The automation will simplify the system of court-bound and court-issued papers, where templates, as well as relevant public information, will be made available in the eCourt system portal.

Implement the integration of the unified crime index to improve the uniformity of crime data. The region will be in sync with the national-level implementation of a unified crime index database of the PNP in support of the technology-based case management solutions rollout. Applicable processes will follow the exact language or terminology of the index database that is compliant with the international standard for crime statistics.

Streamline the rules on the disposition of specialized and multi-party cases. The rules on land disputes will be streamlined to impose the mandatory consolidation of causes of action relating to the same real property, whether for possession, ownership, or damages. The rule on expropriation will

also be clarified to ensure that courts are compliant with issuing partial judgments at the different stages of expropriation cases. This will include the jurisdiction of the NCIP on claims of IPs and indigenous cultural communities on ancestral domains in the region. Also, the Bicol region will support the SC in designating special courts for land dispute settlement.

Moreover, the region will participate in the crafting of simplified special rules of procedure, through civil or criminal proceedings, to handle multi-party cases, such as mass injury cases.

Automate consumer complaints handling. The regional and provincial offices of the DTI will develop and implement the Online Dispute Resolution System, which will serve as a web-based consumer complaint portal, and automate the entire consumer complaints-handling process of the government. This will be done by interlinking all the relevant national and sub-national government agencies of the Consumer Network.

Provide private sector-led redress mechanisms. The business owners in the region will be encouraged to establish respective consumer welfare desks or an equivalent customer relations office inside their establishments, and develop a mechanism for speedy resolution as well as provide immediate redress for consumer complaints. This will prevent additional case build-up for the regional court.

Outcome 2: Access to quality free or affordable legal services improved

Promote Free Legal Service Access. The national and regional government will fully implement the Revised Law Student Practice Rule under Rule 138-A of the Rules of Court for the

underprivileged to address scarce legal services. The said rule manifests that law schools are required to establish legal aid clinics and provide accredited law students the opportunity to assist those

who do not have representation in court.

The justice sector of the region will promote and tap the services of the Integrated Bar of Philippines (IBP)-Bicol Chapters, volunteers from the Bicol law schools and legal aid providers, and other non-governmental organizations which offer alternative lawyering to underprivileged populations, such as the Sentro ng Alternatibong Lingap Panlegal (SALIGAN), a legal resource NGO based in Naga City, which provide legal education to empower and equip the marginalized with knowledge “to fight for their rights”. This will enable the organizations to discharge their public responsibilities more effectively and improve the overall administration of justice in the region.

Establish Free Legal Aid Public Directory and Referral System.

Localized efforts by the LGUs in the Bicol region will be provided in creating a directory of free legal aid providers. In a collaboration between SC, DOJ, PAO, IBP, the Philippine Association of Law Schools, and other legal aid service providers, the data-banking for referral and contact system for free legal aid that can be availed of by regional localities will be strengthened. Specifically, online legal aid will be provided to ensure that law enforcers and detainees have immediate access to free legal aid.

The DOJ Region 5 will primarily oversee the establishment and maintenance of the DOJ Action Center wherein complaints, requests for legal assistance and queries of walk-in clients will be facilitated and provided with immediate action.

Expand the Justice on Wheels Program. The Bicol region will leverage the expanded Justice on Wheels (JOW) program to address focus areas in the region, such as tenurial agrarian issues, environmental cases, etc. The JOW

program will support the development of a more effective and accessible judicial system. It will alleviate the backlog of cases and make justice more available to remote areas with no functioning courts. Modeled after similar projects in other nations, the JOW will make use of buses to reach underserved communities and serve as both a courtroom and a mediation center. The expanded JOW program will bring the courts closer to the complainants in local communities in the region, which will thereby ensure the speedy resolution of cases or disputes.

Strengthen victim legal protection and assistance.

Access to justice in the region will be made more inclusive, especially among marginalized sectors such as women, children, PWDs, senior citizens, and indigenous peoples, through victim-centered, child-friendly, and gender-sensitive assistance mechanisms. Coordination among the DOJ, PNP, and DSWD will be strengthened through their regional offices to address fragmented mechanisms in existing witness protection and victim assistance programs. The accessibility and administration of the Victims Compensation Program will be improved, and increasing the compensation for victims of unjust imprisonment and violent crimes will be pursued.

Moreover, the Commission on Human Rights (CHR) Region 5 will intensify its efforts to improve access to justice through the following: (a) empowering the poor and marginalized to seek responses and remedies for injustice; (b) improving legal protection, awareness, and aid; (c) improving civil society and parliamentary oversight; (d) addressing human rights violations in the justice sector; (e) strengthening linkages between formal and informal structures; and, (f) monitoring and evaluating such interventions.

Outcome 3: Quality of life of PDL improved, and productive re-integration of PDL in the community ensured

Undertake construction and repair of penal facilities. Jail facilities will be constructed, and health and safety protocols in penal facilities will be enforced. New jail facilities will be established, and the existing penitentiary will be expanded to adequately address the jail congestion problem and properly house the PDL. The construction and repair of penal facilities of international standards will be given priority to guarantee the dignity and health of detainees, as well as effectively support their rehabilitation, and eventual reintegration into society.

To facilitate the resolution of cases and help in the decongestion of jails, strict observance of the rules of court for the speedy disposition of cases will be undertaken. Parole and mediation cases, especially those involving senior citizens, will be monitored regularly and legal assistance will be provided. The jail management system will be harmonized and unified, and mechanisms relative to the status and prioritization of inmate cases will be established. The grant of good conduct time allowance (GCTA) to deserving PDL and plea bargaining in drug cases will be adopted to further reduce jail congestion.

Establish a unified penology and corrections system. The region will support the proposal for a single agency that will be created to manage all national prisons and city, district, municipal, and provincial jails all over the country and administer rehabilitation programs for convicted offenders. This new agency and the courts will work together through information sharing to guarantee the timely release of detainees or convicted offenders.

The Bicol will support the establishment and implementation of a Unified Reintegration Strategy, wherein a comprehensive and holistic program for the reintegration of PDL post-incarceration will be created. This will include employment opportunities in the public sector and providing incentives for the private sector that will accept PDL as employees.

Expand the *e-Dalaw* system, livelihood and entrepreneurial opportunities for PDL, and multi-disciplinary rehabilitation mechanisms. Emanating from the national, the *e-Dalaw* system in the region will be operationalized and expanded to afford unhampered access to justice and enforce social reintegration. Digital infrastructure will be put in place to support video conferencing for visitors, as well as the conduct of virtual hearings. This will reduce possible risks associated with in-person contact, such as the smuggling of prohibited items.

The transformative power of education, especially for people behind bars, will be promoted, e.g., College Behind Bars, to provide options for those in prisons who struggle to earn educational degrees. This will include the provision of support facilities such as college buildings, and coordination with SUCs will be facilitated. Furthermore, lifelong development such as providing better and sustainable learning, such as vocational and technical training, will be promoted to be mainstreamed in the education platforms for PDL to facilitate and enable sustainable livelihood.

To provide livelihood opportunities for

PDL, capacity training will continue to be provided by the DTI, specifically on handiwork skills and product development. These will provide opportunities for PDL to earn for their upkeep and their families. The government will also provide tax incentives or other non-monetary incentives and recognition to business establishments and employers that will provide capacity-building, livelihood or employment, and entrepreneurial opportunities to PDL. The Bicol region will provide input to the government's conduct of the study to determine the viability of the complete deletion of criminal records being adopted in other jurisdictions. This will remove the stigma associated with incarceration.

A holistic reintegration program will be implemented for formerly incarcerated offenders, consisting of a multi-disciplinary program that will ensure the successful rehabilitation of convicted offenders. The program will be directed toward improving the offenders' behaviors, skills, mental health, social functioning, and access to education and employment.

Moreover, the BJMP Region 5 will sustain its activities under its Welfare

and Development Program for PDL, which includes: (a) spiritual services; (b) guidance and counseling; (c) educational services like the Alternative Learning System (ALS); (d) skills training and livelihood program and services; (e) Therapeutic Community Modality Program (TCMP); and (f) *Katatagan, Kalusugan at Damayan ng Komunidad* (KKDK).

Operationalize the unified referral and monitoring system for former PDL. The national and sub-national governments will collaborate to assess the post-incarceration outcomes through facilities for psychiatric support and supportive residential housing, such as halfway houses. This will ascertain classes of offenders, such as, in drug cases, the rehabilitation program will be designed to address underlying problems of substance abuse that might lead to re-offending.

Furthermore, the functions of the Barangay ADACs in the Bicol region will be expanded to include monitoring of former PDL to assist in their complete rehabilitation and reintegration into communities.

Legislative Agenda

Table 14.2.2 presents the proposed policy reform to enhance administration of justice.

Table 14.2.2 Legislative Agenda to Enhance Administration of Justice

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Amendment of Batas Pambansa Blg.129	Redistribute/create new courts proportionate to the population per proposed court location, historical volume of filing, or the existing load of dockets in the courts of that location.	DOJ

15

**Practice Good Governance
and Improve Bureaucratic
Efficiency**

Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

A high-trust society and efficient bureaucracy through good governance are essential to attaining a prosperous, inclusive, and resilient society. Good governance is the foundation for inclusive and sustainable growth, which creates accountability, transparency, and efficiency at all levels of government.

This chapter presents the strategies to attain clean and efficient governance, to promote stronger collaboration between RLAs and LGUs, and to improve overall regulatory efficiency and competitiveness.

Assessment and Challenges

Assessment

In RDP 2017-2022, the sector outcome relating to good governance and bureaucratic efficiency was partially attained, as several new policies and measures were implemented. While most of the targets were achieved, its performance fell short of the end-of-plan targets.

To advance transparency and promote accountability, the DILG created the Full Disclosure Policy (FDP) Portal in 2012. The portal served as a transparency mechanism that allows LGUs to fully disclose their financial transactions to keep their constituents informed on how the budget was managed. As of the fourth quarter of 2021, 98 provinces, cities, and municipalities (PCM) have fully complied with the requirements of the FDP: 16 have high-partial compliance, 1 has low-partial compliance, and 4 are non-compliant PCMs. The increase in usage of the FDP, transparency, and accountability at the

local level are being promoted.

Over the past years, the DILG has issued several circulars to promote the active engagement of CSOs in national and local government processes and programs. The recently released DILG Memorandum Circular (MC) 2022-083, or the “Guidelines on the Accreditation of CSOs and Selection Representatives to the Local Special Bodies (LSB),” further strengthened the private sector partnership and empowered citizens in participatory governance.

The RA 11292 or the “Seal of Good Local Governance (SGLG) Act of 2019,” provides a progressive assessment system to give distinctions to remarkable LGU performance based on assessment criteria. In 2021, under the SGLG assessment, the DILG recorded 20 participating LGUs in the SGLG field testing, but this was only half of the target participants for assessment. In 2022, the DILG expanded the assessment criteria from seven to ten

to boost LGU performance. The SGLG maintains the “all-in” principle where the LGUs must pass all assessment areas to receive recognition. One of the ways to improve the participation of LGUs in the assessments is the eligibility of awardees to the SGLG Incentive Fund and other intervention packages. The incentive fund may be used by awardee LGUs to finance local development initiatives. However, the LGU participation in the region for the SGLG assessment remains low. The DILG will create interventions to improve the participation of LGUs in the assessments.

The Bicol Region continues to pursue excellence and better bureaucratic efficiency. Compared to last year, the number of LGUs qualifying in the top ten in the different areas of the Cities and Municipalities Competitiveness Index (CMCI) increased from 9 cities and municipalities to 17. In 2022, the cities of Naga and Legazpi were awarded as the 1st and 2nd overall most competitive component cities, respectively. The municipality of Paracale was awarded the most improved 3rd to 4th class LGU, while Daet was awarded the 3rd most competitive in economic dynamism for 1st to 2nd class municipalities.

In strengthening the human resources in RLAs, the Civil Service Commission (CSC) continues the implementation of the Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM). The PRIME-HRM is a mechanism that empowers government agencies by assessing the maturity levels of their competencies, systems, and practices in various human resource (HR) systems. In 2022, the CSC accredited only one agency with the PRIME-HRM Bronze award, which is lower than the previous year’s performance of six agencies.

Due to the restrictions caused by the

COVID-19 pandemic, the CSC utilized an online appointment system to manage the volume of walk-in clients for the Administrative Justice Program. The program aims for an efficient and effective disposition and resolution of cases. However, the administrative case disposition rate declined from 83.87 percent in 2019 to 55.14 percent in 2022, while the case resolution rate increased from 92.16 percent to 95.68 percent. The CSC will strengthen its Administrative Justice Program to increase the administrative case disposition rate above the pre-pandemic level.

The issuance of EO 170, or the “Adoption of Digital Payments for Government Disbursements and Collections,” provided the digitalization of payments for government disbursement and collections in line with the government’s thrust to develop an inclusive and digital finance ecosystem. It is consistent with the EODB-EGSD Act of 2018 which further strengthens the efforts for more efficient service delivery.

The PhilSys of the PSA has now registered more than 3.48 million Bicolanos. In line with this, the PSA launched PBRAP to support the registration process for PhilSys. The PBRAP aims to facilitate the issuance and eliminate the barriers to the registration of birth certificates especially in GIDAs, with the assistance of DILG and LGUs. These programs will be able to transform service delivery and accelerate our transition to a digital economy by promoting a unified ID system for all Filipinos.

The Mandanas-Garcia Supreme Court ruling will strengthen the local autonomy prescribed in the Local Government Code (LGC) of 1991. It will accelerate the development of LGUs in the region. However, along with the increase in the share from the National Tax Allocation,

the responsibilities and obligations brought by the full devolution also increased. The challenges that the LGUs have to confront will be addressed, such as the lack of capability and resources to implement big-ticket projects, the fast tracking of Devolution Transition Plans, and the implementation of effective public financial management. Necessary actions have to be undertaken to ensure that the LGUs are equipped and prepared to contribute to the success of full devolution.

The DICT has been continuously implementing the Free Wi-Fi for All Program across the country. In 2021, 121 sites were established in 36 different locations in Albay. The free internet facilities were placed in public areas such as municipal halls, RHUs, SUCs, and public parks. The program has to focus on GIDAs to improve access. The improved digital connectivity will also aid LGUs in their compliance with the FDP.

Challenges

Improving citizenry participation.

Governance is not merely a responsibility of the government sector but the combined effort of all the members of society wherein everyone is given the chance to be heard and be able to participate in decision-making. Through the years, efforts have been conducted to promote participatory governance in the region. However, maintaining and creating a venue that allows the citizenry to actively participate in nation-building remains to be a challenge. Despite the increase in participation of the private sector in government processes, the level

of engagement needs to be improved to ensure meaningful participation and proper representation of their respective sectors. The CSOs require deeper and more significant engagement in government processes and a chance for proper representation of their organization and constituents.

Strengthening competitiveness in the public sector.

Strengthening the competitiveness of the public sector remains a challenge considering new development trends including technological advancement and the threats of disasters and climate change. These include the need to enhance the competencies of its human resources and improve facilities including information technology. The competitiveness of the government sector to perform its functions effectively and efficiently was further tested with the occurrence of the COVID-19 pandemic which calls for the acceleration of the digital transformation of government processes, and ensuring that services will not be disrupted in the event of a disaster.

Improving transparency and ensuring efficient delivery of public services.

Improving transparency and accountability in the government sector plays a critical role to improve bureaucratic efficiency. Although various efforts have been implemented to improve transparency and efficient delivery of services, various issues remain including weak feedback mechanisms and layers of unnecessary bureaucratic processes which need to be streamlined to facilitate government transactions.

Targets

The Bicol RDP 2023-2028 aims to: (a) strengthen PCM based on local development council (LDC) standards; (b)

increase the number of LGUs compliant with FDP; (c) improve the administrative case disposition and resolution rate; (d)

increase the number of PCMs conferring with the SGLG; (e) increase the number of PCMs recognized in the CMCI; (f) increase the number of agencies accredited

with PRIME-HRM bronze award; and (g) establish Integrated Business Permits and Licensing System (IBPLS) in the region.

Core Indicators

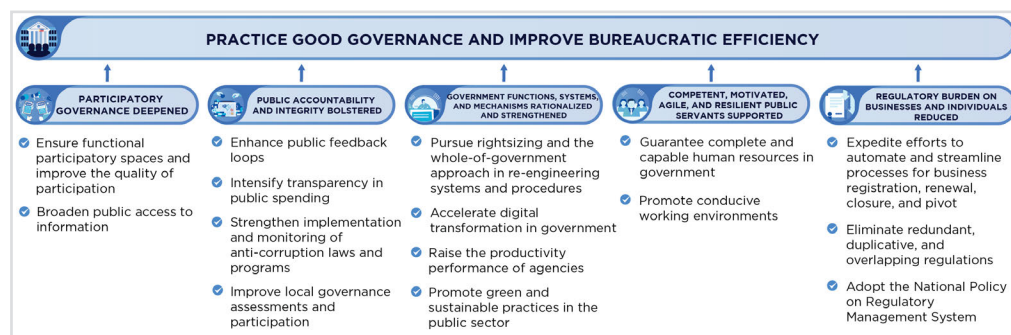
Table 15.1 presents the indicators and targets to practice good governance and improve bureaucratic and regulatory efficiency.

Table 15.1 Core Indicators to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
PCMs compliant with LDC functionality standards increased (%)	Prov - 100% C/MLGU - 49.12% [2021]	Increasing						DILG Report	DILG
Percentage of PCMs fully compliant with the Full Disclosure Policy (%)	85% [2022]	85%						DILG Report	DILG
Percentage of administrative case disposition rate	Average Rate - 77.65% [2019-2021]	66%	Increasing				100%	CSC Report	CSC
Percentage of case resolution rate	Average Rate - 94.16% [2019-2021]	80%	Increasing				100%	CSC Report	CSC
The percentage of PCMs conferred with SGLG increased	9 [2022]	10	12	14	16	18	20	DILG Report	DILG
No. of PCMs Recognized in the CMCI	7 [2022]	Increasing						DTI Report	DTI
Number of agencies accredited with the PRIME- HRM Bronze Award	5 [2022]	5	Increasing				CSC Report	CSC	
No. of established negosyo centers in the PCMs in the region	91 [2022]	Maintained						DTI Report	DTI
No. of established iBPLs in the LGUs in the region	10 [2022]	Increasing						DICT Report	DICT

Strategy Framework

Figure 15.1 Strategy Framework to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency



Strategies

The practice of good governance and improved bureaucratic and regulatory efficiency will be achieved by intensifying participatory governance, strengthening public accountability and government systems, and ensuring competent public servants. Participatory governance and public accountability will contribute to

the attainment of good governance while strengthening government functions, systems, and mechanisms, and public servants' support will help improve bureaucratic and regulatory efficiency. The following are the strategies to attain the chapter outcome:

Outcome 1: Participatory governance deepened

One of the foundations of a high-trust society is to empower the citizens through participatory governance. To attain this: (a) sufficient participatory platforms will be provided to citizens; (b) the public's access to information will be made seamless and reliable; (c) the participation of CSOs in government processes will be encouraged; and (d) efforts to increase citizen participation in elections will be promoted.

Ensure functional participatory spaces and improve the quality of participation. Involvement of the private sector in government processes will be ensured through creation of effective participatory spaces. In recent years, both DBM and DILG have been promoting the participation of CSOs in budget

preparation processes, LSB, programs and projects, and People's Councils. Both agencies will further strengthen the involvement of CSOs to provide inclusive, sufficient, and participatory spaces. LGUs and government agencies will comply with the various issuances of DBM and DILG to promote functional participatory spaces in their offices and affiliated committees.

The DILG will capacitate CSOs for them to be familiarized with government programs and processes, such as in LSBs, LDC, and Local Health Boards, among others. Capacity-building activities will encourage CSOs to fully participate in government processes and improve their quality of representation in their respective sectors. DBM and DILG will

continue to create issuances, further enhancing the quality of participation from private sectors to government bodies. To support this, the RLAs, committees, councils, bodies, and LGUs will provide an opportunity for CSOs to contribute significant and relevant participation based on their expertise. The Open Government Partnership, an international organization from various sectors, will also support the recognition of CSOs in local legislative bodies.

Further, the IPs shall be well represented to promote their rights in congress, local legislative bodies, and policy-making bodies.

Broaden public access to information. Broadening public access to information, transparency, better connectivity, and seamless access to information play a vital part in participatory governance. All RLAs will be encouraged to establish websites where frequently asked data, annual reports, development plans, agency plans, and other relevant information are easily accessible.

Request for information to RLAs will be compliant with the EODB-EGSD Act

of 2018 to ensure the timely release of data. In line with the said Act, ARTA released MC 2020-07 entitled “Guidelines on the Designation of a Committee on Anti-Red Tape in Agencies Concerned in Compliance with RA 11032, and its Implementing Rules and Regulations”. The said MC ensures that the agencies will be able to comply with the EODB-EGSD Act of 2018 and further enhance their existing mechanisms and services.

Compliance with the FDP and Freedom of Information (FOI) will be ensured to promote transparency and contribute to the accessibility of public information. The coverage of EO 2, s. 2016 will be expanded to allow the public to review all official information from government agencies to promote meaningful and increased participation in government decision-making, as well as in transparency and accountability.

The DICT will continue to improve and increase the coverage of the Free Wi-Fi for All programs for better, free, and reliable internet connectivity for Bicolanos, especially those in remote areas. The enhancement of digital connectivity will promote better public access to information (*See Chapter 13*).

Outcome 2: Public accountability and integrity bolstered

In attaining strong public accountability and integrity, transparency and prevention of corruption will be addressed. Functional mechanisms for people to voice their concerns are in place but will be strengthened to increase trust and satisfaction among citizens. Improvement of local governance assessment and transparency platforms, such as the FDP and FOI, will be promoted.

Enhance public feedback loops. With the current increase in connectivity and digital technology capacities, accessibility to public feedback loops will be made easier, such as the Contact Center *ng Bayan*, EODB-EGSD Act, and ARTA services, by ensuring that these can be accessed online. The harmonized Client Satisfaction Measurement (CSM) issued by ARTA will

be implemented by government agencies to improve and standardize client feedback mechanisms and government services. To further enhance feedback loops, the mechanisms will seek a higher and faster resolution rate, and utilize current digital capacities to further improve service delivery to the citizens.

Intensify transparency in public spending. All agencies and LGUs will broaden public access to information on public spending. DILG will further capacitate the LGUs in using the FDP to intensify efforts toward transparency. The FDP, which serves as one of the main tools for advancing transparency and accountability, allows the constituents of an LGU to understand how the local budget is allocated. RLAs will observe the open contracting data standards in their procurement processes to facilitate the disclosure and publication of all procurement data.

Strengthen implementation and monitoring of anti-corruption laws. Anti-corruption laws will be strengthened to ensure that public money is spent to improve public service. Filing of Statements of Assets, Liabilities, and Net Worth (SALN) will continue to promote transparency, full disclosure, and preservation of integrity in the civil service. Monitoring of SALN will help

ensure that assets and liabilities, including business and financial interests, are declared under oath.

The Commission on Audit will continue to implement the Intensified Management Program on Integrity to ensure a sustained culture of integrity in the public sector. DILG will also monitor the LGUs and act on corruption-related complaints filed against local officials and executives.

Improve local governance assessment and participation. The conduct of the SGLG will continue to boost LGUs' performance and commitment to improve based on the various governance areas. To promote LGU participation, DILG will further capacitate and provide technical assistance to LGUs to better prepare them during the assessments of SGLG. DILG will employ the aid of local committees, councils, and bodies to create issuances for LGUs to participate in the SGLG assessments. In line with this, the National Governance Index Development will be rolled out for adoption in the region. The Index shall serve as the local counterpart of the global governance indices which aims to evaluate the sustainability of a country's regulatory framework and infrastructure in facilitating natural, social, and intellectual capital.

Outcome 3: Government functions, systems, and mechanisms rationalized and strengthened

Streamlined government processes provide better services for the citizens, and facilitate the government's efforts to achieve a digital economy. Efficient government functions will reduce operational costs, provide faster delivery of service, and show better results. This

subchapter outcome includes strategies on the right sizing and the whole-of-government approach in systems and procedures, digital transformation in government processes, and raising the productivity and performance of government agencies.

Pursue rightsizing and the whole-of-government approach in reengineering systems and procedures.

In November 2022, the House Committee on Government Reorganization approved the National Government Rightsizing Bill which intends to pursue the rightsizing measures in the executive branch of the government. The bill seeks to create the Committee on Rightsizing the Executive Branch in charge of reorganizing, merging, streamlining, or abolishing agencies and officers that will improve the performance and service delivery of national agencies based on their core functions, roles, mandates, structures, size, and processes. Acknowledging its importance in regional development, particularly in improving public service delivery, regional line agencies will support any efforts related to this particularly once passed into law.

With the passage of EO No. 138, s. 2021, the delineation of functions of agencies under the executive branch and LGUs involved may change. Thus, the Regional Committee on Devolution (ComDev), led by DBM and DILG, will oversee and guide the transition during the roll-out of the Mandanas-Garia SC ruling. To support this, the agencies as well as the LGUs will continue to create and implement their respective Devolution Transition Plans. The ComDev will continue to assist both the agencies and LGUs to ensure the effective transition of the devolved functions.

Accelerate digital transformation in government.

The E-Government Masterplan (EGMP) 2022 of DICT will be implemented to streamline procedures and enhance the ICT capacities of government agencies. The National Government Portal (NGP) will be completed and the EGMP will be the frontline program. The NGP will provide users with easy access to government

services, whether internal to government employees, between government agencies, or with external clients.

With the lessons learned during the COVID-19 pandemic, the region will support the proposed E-Governance Act of 2022, or House Bill No. 3 that will facilitate the digital transformation in the government through a faster, safer, and more efficient way to deliver services, and reduce the risk of contracting COVID-19. The implementation of the PhilSys program will also be continued to assist in accelerating the digital transformation. The said program will be supported by all government agencies to facilitate digital transformation in government.

Raise the productivity and performance of agencies.

The implementation of the Government Quality Management Program will be pursued to enhance the frontline services of agencies for the benefit of its clients. The QGMP will promote the adoption of International Organization for Standardization (ISO) 9001:2000 Quality Management Systems among government agencies. The ISO certification will assist in standardizing and streamlining government processes to ensure productivity and performance. Once certified, government agencies will continue to improve and increase their enrolled processes during re-certification activities. As such, this will ensure the continuous improvement of performance and service delivery to the public. The harmonization of CSM created by ARTA will be used to measure the effectiveness of current practices and services and improve on it based on client feedback which in turn will be used as a basis to improve productivity performance. The use of the Productivity and Performance Management System as well as the Results-Based Management Framework will be promoted across levels.

Promote green and sustainable practices in the public sector.

In support of the country's commitment to the SDGs, including reducing disaster and climate-related risks, sustainable practices will be promoted across levels of the government sector. In line with adaptation and mitigation initiatives, government agencies will pursue projects to generate renewable energy, such as solar energy being the most common, in their respective offices. Renewable energy will reduce the monthly electrical bills in the offices and will ensure that some of the basic office facilities, such as lighting and Wi-Fi, will work despite the frequent power outages and even during disasters. Diversifying the energy supply will lessen the dependency on local energy suppliers.

Government agencies will improve their energy efficiency practices within the office as stated in RA 11285, or the "Energy Efficiency and Conservation Act." The DOE regular energy efficiency audit will be supported by government agencies and comply with their recommendations to improve current energy efficiency practices. Government agencies will also

join the annual energy efficiency awards of the DOE to promote and recognize the best-performing entities in terms of energy conservation.

Green Public Procurement (GPP) is a mechanism to include environmentally relevant technical specifications in bid documents for government agencies. The practice of GPP will be adopted and promoted by government agencies in the region to foster sustainability, achieve long-term benefits, reduce pollution, and improve the overall lives of future generations. In essence, GPP is the same as the conventional principles of public procurement but adds more emphasis on sustainable development in government. These include the procurement of services ranging from food and catering, training, and venues to appliances, such as air conditioning, refrigerators, and computers, to daily cleaning materials in the office, among others. The Bids and Awards Committees of the various agencies in Bicol will make use of "The Philippine Green Public Procurement Roadmap" to advance their current procurement methods.

Outcome 4: Competent, motivated, agile, and resilient public servants supported

The productivity and efficiency of an organization rely largely on the competence, motivation, agility, and resiliency of its employees. This chapter supports increasing the capacities and skills, and promoting the health of public servants. The subchapter outcome will deal with job satisfaction, work happiness, organizational commitment, and employee engagement to promote public servants and ensure overall bureaucratic efficiency.

Guarantee complete and capable human resources in government. The CSC will continue to implement the PRIME-HRM assessment and the CSC Agency Accreditation Program to develop agencies toward human HR excellence. Both onsite and online technical assistance will be provided by CSC to agencies based on their needs which will address gaps and meet their desired outcomes. The PRIME-HRM will be promoted to agencies to

increase the capacities of human resources in government agencies. Government agencies that have received PRIME-HRM awards will aim to meet the next higher levels of PRIME-HRM to guarantee complete and capable human resources in government.

The region will also support the bill which seeks to institutionalize the creation of human management resource office (HRMO) in all LGUs in the country. Currently, the accountability of HR is lodged with the local chief executives (LCE), which could result in HR matters being politicized. As such, the creation of HRMOs in LGUs will help in developing competent and credible employees, as well as boost HR concerns within the LGUs.

Promote conducive working environments. A conducive work environment is where employees feel appreciated, acknowledged, and valued. In turn, the employees become more

creative, productive, and motivated. To achieve this, various initiatives will be implemented. On the physical aspect, agencies will be encouraged to observe compliance with various policies such as observance of proper ventilation, space, and lighting as prescribed by the DOLE and DOE to ensure the comfort of the employees and build resilient infrastructure facilities following the National Building Code. Government agencies will be encouraged to adopt a prescribed minimum specification for information and communications technology equipment to improve efficiency and productivity in the office. Agencies will also consider the CSC MC on Physical Fitness Program to promote health, sports, and camaraderie within the agency. At the same time, agencies will be encouraged to register in the PhilHealth *Konsulta* Package to cover annual physical consultations, and to monitor and improve their employees' overall health status.

Outcome 5: Regulatory burden on businesses and individuals reduced

The greater regulatory burden on businesses and individuals can act as a barrier to entering business ventures, which may result in the reduction of healthy market competition. Heavy regulatory burdens may also lead to exploitation, such as bribery and fixers. To address this shortcoming, initiatives to reduce regulatory burdens to attract new businesses and overall investment in the region will be implemented. It will also hasten service delivery to individuals and businesses with transactions with the government.

Expedite efforts to automate and streamline processes for business registration, renewal, closure, and pivot. In the efforts to automate

and streamline business processes, DICT will implement the iBPLS, an improved successor to the Electronic Business Permits and Licensing System. In line with the EODB-EGSD Act of 2018, which requires LGUs to automate their business permitting systems until 2021, ARTA encourages LGUs to adopt the iBPLS software, which will allow the electronic processing of building permits, occupancy permits, and business permits. All LGUs in the region, in coordination with DICT, will adopt the use of iBPLS.

The RA 10644 or the Go *Negosyo* Act, mandates the establishment of NCs in all PCMs in the region. These centers promote ease of doing business and facilitate access to services for MSMEs

while at the same time supporting MSME development. Serving as the regional arm of the MSMEs Development Council, the DTI performs oversight and fulfills the functions of the NCs. While the majority of PCMs in the region have functioning NCs, DTI, and LGUs will fast-track the establishment of NCs in the remaining areas of the region. Manpower will be devoted by LGUs to NCs functions to ensure service delivery to businesses in their designated areas. DTI will continue to provide NCs services in the region and improve overall coordination with relevant government agencies and LGUs.

Eliminate redundant, duplicative, and overlapping regulations.

Redundant, duplicative, and overlapping regulations in the government can create uncertainty, conflicting rules, and an increase in transaction costs while providing no added benefits to the public. In 2020, the Office of the President of the Philippines issued AO 23, s. 2020 to eliminate overregulation to promote the efficiency of government processes. Under RA 9845, as amended, ARTA will coordinate with government offices to review issuances and processes and repeal outdated and redundant government processes relating to public transactions. In line with this, under Rule IV of the IRR of the EODB-EGSD Act of 2018 and the ARTA MC 2020-07, all government agencies are required to review their

respective Citizen's Charters to identify and eliminate costly, redundant, unnecessary, ineffective, and outdated regulations. As such, all agencies in the region will implement the EODB-EGSD Act to aid in eliminating redundant, duplicative, and overlapping regulations to promote faster and more efficient transactions.

Adopt the National Policy on Regulatory Management System.

In 2022, ARTA released MC No. 2022-06, with the title "Establishing the National Policy on Regulatory Management System (NPRMS)," to create a whole-of-nation approach to regulatory reform by reducing regulatory burden and improving regulatory quality and coherence. The NPRMS has been laid out in the PDP 2023-2028 in support of the current administration's eight-point agenda. In line with the PDP 2023-2028, the Bicol RDP 2023-2028 will adopt the NPRMS in the region and strengthen the capacity of NGAs and LGUs to implement the system. ARTA will regularly provide regulatory management training programs to capacitate NGAs and LGUs in the implementation of the NPRMS. The critical roles of agencies and LGUs will ensure the improvement of the regulatory environment and strengthen overall business confidence and competitiveness, at the same time reducing permit corruption in the processes.

Legislative Agenda

To achieve the chapter outcome, the government will pursue legislation outlined in Table 15.2.

Table 15.2 Legislative Agenda to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
National Government Rightsizing Bill	This will be the primary basis for transforming and streamlining the structure of agencies under the executive branch based on their functions, mandates, roles, and processes. Its enactment will ensure the correct staffing requirements for agencies.	DBM

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
E-Governance Bill	This aims to unify and streamline service delivery processes and services in all government offices to digitization. The bill shall provide the highest level of convenience to Filipinos in their transactions with the government.	DICT
Budget Modernization Bill	The budget modernization bill seeks to institutionalize the cash-based budgeting system to strengthen fiscal discipline in the allocation and use of budget resources.	DBM
Amendment of the LGC for the Creation of HRMOs in LGUs	A house bill was proposed for the creation of HRMOs in the LGUs. The bill was proposed since the accountability of HR is lodged in the LCEs, which could result in HR matters being politicized. As such, the creation of HRMOs in LGUs will help in developing competent and credible employees, as well as boost HR concerns within the LGUs.	DILG

16

**Accelerate Climate Action
and Strengthen Ecosystem
and Disaster Resilience**

Accelerate Climate Action and Strengthen Ecosystem and Disaster Resilience

Building resilient communities, institutions, and ecosystems is critical to attaining the medium-term goal of economic and social transformation for a prosperous, inclusive, and resilient society. Taking into consideration the challenges brought by climate change, the Bicol RDP 2023-2028 acknowledges the need for collective action to mitigate the climate crisis and build resilient institutions, communities, and ecosystems.

To increase community and institutional resilience, the region will focus on enhancing the risk assessment process based on scientific and up-to-date data, as the basis for providing appropriate interventions to address existing risks in the various sectors. The construction of resilient facilities and the strengthening of the EWS will be pursued. Capacity building at various levels will be conducted to ensure that all duty-bearers can perform their jobs in pre- and post-disaster events.

To enhance ecosystem resilience, the conservation, protection, rehabilitation, and management of the region's natural resources will be pursued by operationalizing the integrated ecosystem-based management approach and adopting nature-based solutions. Natural resource-based industries and enterprises will be promoted by strengthening the region's green and blue economies and promoting sustainable consumption and production.

To enable a low-carbon economy transition, the region will strengthen climate change mitigation initiatives by supporting the implementation and localization of the Nationally Determined Contribution policies and programs. Market opportunities for low-carbon technologies and products will be expanded by providing support to MSMEs, innovators, and research institutions in the development of climate-smart products and the adoption of green technology towards sustainability.

Lastly, governance and intersectionality of climate change and natural hazard resilience will be improved by strengthening risk financing and risk-transfer mechanisms, intensifying partnerships with different stakeholders, particularly the private sector and CSOs, implementing innovative data-driven technology solutions, and strengthening the region's ecosystem valuation system for better planning and programming of initiatives.

Assessment and Challenges

Assessment

Over the years, Bicolano resilience has been constantly tested by various disasters because of Bicol Region's geographic location that is prone to various natural hazards. In 2019 alone, many communities suffered the brunt of three consecutive TCs QRU, which onslaught caused widespread and significant damage to properties and lives, and negative impacts on economic opportunities.

The MGB data showed that around 27 percent (4,632 sq. km.) of the region's total land area has high to very high susceptibility to landslides and debris flow. Approximately 1,405.72 sq. km. or eight percent are categorized as highly to very highly susceptible to flooding. Most of these areas are found within the Bicol River Basin area.

According to PHILVOLCS, Bulusan and Mayon Volcanoes are considered as two of the most active volcanoes in the country. The region lies near the center of the Philippine Fault Zone, which is considered a major earthquake generator in the country. Around 315 sq. km. of Bicol's coastal area along the eastern seaboard is prone to a tsunami with an inundation depth of more than five meters.

Bicol is frequently affected by TCs. Historical data from PAGASA shows that from 1945 to 2020, a total of 161 TCs crossed the Bicol Region, 55.3 percent of which occurred in the last quarter of each year.

Data from the Climate Change Commission (CCC) showed that the national budget allocated for climate change-related initiatives increased from PHP195 billion in 2017 to PHP289

billion in 2022. For Bicol, data on the local climate change expenditure tagging (CCET) showed that 45 percent of the total investments of LGUs from 2016 to 2020 were attributed to climate change adaptation and mitigation activities. In terms of climate projection using both the Representative Concentration Pathway (RCP) 4.5 and RCP 8.5 scenarios, an increase in the seasonal mean temperature in all the provinces of the region is projected (PAGASA). The increase in mean temperature ranges from 1.0 °C to 2.3 °C. The highest projected mean temperature of 30.3 °C is noted in the province of Masbate in the months of March, April, and May.

On mainstreaming DRR-CCA in policies and development plans under RA 10121 and RA 9729, only 22 of the 114 LGUs have the approved DRR-CCA enhanced CLUPs which incorporated climate and disaster risk assessment; and one out of six provincial LGUs with approved DRR-CCA enhanced PDPFP, still for ratification. Of the 120 LGUs (including provinces), 72 Local Climate Change Action Plans were submitted to CCC, as of November 2022. As of writing, various LGUs are in the process of updating their respective plans.

Given these various hazards and the existing vulnerabilities of Bicol, different interventions were conducted, both by the public and private groups, to ensure that the disaster and climate-related risks of the region will be minimized. These include the conduct of various training and capacity-building activities at all levels; preparation of disaster and climate change risk assessment including geohazard survey and vulnerability assessment; conduct of drills and exercises; and implementation of community-based

DRR activities. However, despite these efforts, intensifying the adaptive capacity and resiliency of the region remains a challenge considering the increasing frequency and intensity of climate-related hazards. In the past years, the region has suffered various damage and losses brought by disasters. Data from the PDNA showed that for TC Nina, around PHP25 billion in cost of damage and losses were recorded in the region, while for TCs QRU, the cost of damage and losses reached PHP80.40 billion. This was exacerbated by the impact of the pandemic which made the response and early recovery efforts more challenging.

Initiatives to address the environmental concerns are being implemented such as the continuous reforestation program that resulted in the increase of the region's forest cover from 199,379 ha in 2015 to 208,457 ha in 2020. The Intensified Forest Protection and Anti-Illegal Logging Program of the DENR were among the priority initiative implemented in the region to ensure the protection of the forest ecosystem. For 2021, 181 Forest Protection Officers (FPOs) were hired to augment the conduct of foot patrol and assist in Landscape and Wilderness Identification (LAWIN) activities. Several mangrove planting activities were conducted in all the provinces as the region's effort to rehabilitate the mangrove areas. Monitoring of these areas was also conducted particularly within the Ticao-Burias Pass Protected Seascapes. Further, the restoration and rehabilitation of the Bicol River Basin are identified as one of the priorities especially when a series of tropical cyclones ravaged the region in 2020. Among the efforts conducted are the dredging activities in various localities and the tree planting activities. These were implemented by the Bicol Region Task Force Build Back Better which was created by virtue of EO 120, s. 2020 to expedite and lead the preparation,

implementation, and monitoring of post-disaster rehabilitation and recovery programs for typhoon-ravaged areas.

Regular monitoring of air and water quality was conducted in the past years. Based on the Annual Air Quality Index, data from EMB showed that in 2021, air quality in Bicol is generally in good condition. On water quality, major sources of pollution are domestic, livestock, and industrial wastes. Most of the 77 classified water bodies in the region are under Class B to C which means that the water supply requires complete treatment to meet the National Standards for Drinking Water. On solid wastes, 2019 data showed that each Bicolano generates an estimated 0.30 kg of solid waste every day. Domestic waste has the largest contribution covering around 63 percent of the total generated solid waste, with only 29 sanitary landfills (SLF): 9 LGU-operated, and 20 private SLF. In the coming years, waste generation is expected to increase.

On land administration and management, there were 1,895 residential and 636 agricultural free patents issued by the DENR covering an area of around 596 ha in 2021. Land titling was also strengthened through the Rapid Land Tenure Appraisal Program.

Enforcement and monitoring of compliance of the mining operators with environmental policies were also conducted. In 2021, 27 Mineral Product Sharing Agreement contracts were approved. Two *Minahang Bayan* areas were declared in Aroroy, Masbate and Paracale, Camarines Norte, wherein five small-scale mining (SSM) contracts in Camarines Norte were approved under the *Minahang Bayan* Program. SSM is prevalent in various mining areas of the region. In the municipality of Paracale, about half of the population is engaged in different aspects of SSM 1. The

establishment of *Minahang Bayan* will aid to eliminate the illegal SSM which poses threat to the sustainability of the resources and the safety of the miners.

Challenges

Intensifying the adaptive capacity and resiliency of Bicolanos. With the increasing intensity, frequency, and duration of extreme weather events, strengthening the region's adaptive capacity remains to be a big challenge.

Although mainstreaming DRR-CCA in various development plans and policies is continuously advocated, the application of this remains to be a challenge in most LGUs due to various issues such as lack of capacity, and the lack of data available to be used in the conduct of climate and disaster risk assessment. In the past years, it was noted that the occurrence of strong tropical cyclones brought socioeconomic disruption to many Bicolanos, at worst even loss of lives. The commonly affected sectors are agriculture, education, housing, and infrastructure including lifeline facilities. The established EWS in various localities was proven to be of great help in saving lives; however, issues on generating real-time data and its dissemination to all community members especially those residing in secluded areas remain as challenges.

Difficulty to track and assess the progress of the climate agenda is also experienced at the regional and local levels with weak monitoring mechanisms including the monitoring of actual expenditures by government entities on climate-resilience initiatives.

The need to scale up climate change mitigation measures. While adaptation measures are critical to combat the impact

of climate change, necessary mitigating actions need to be put in place to reduce greenhouse gas (GHG) emissions under the country's commitment based on the Nationally Determined Contributions. However, difficulty in identifying regional and locally determined contributions, and the lack of mechanisms to monitor GHG emissions, particularly at the local level, remain to be among the major issues. Other than this, the region's dependence on fossil fuel and the high cost of investment required to acquire low-carbon technology remains to be an issue considering the LGUs' lack of capacity to access various climate risk financing institutions.

Addressing the deterioration of the ecosystem. Considering various environmental issues in the region such as forest degradation, pollution, and biodiversity loss, there is a pressing need to continuously protect, conserve and rehabilitate the natural ecosystems. The lack of environment-related data such as the status of groundwater; inconsistent data from different agencies/ LGUs; and mismatch between nationally-produced maps and actual data on the ground hamper effective planning, implementation, and monitoring of the resources.

In terms of land use, issues such as rapid land conversion and encroachment exist. Data showed that encroachment of built-up areas in forest and timberland was observed in various locations in the region covering an area of around seven sq. km. Meanwhile, around 640 ha of agricultural land were converted to various land uses from 2000 to 2021. This strengthens the call for the passage of a policy that will unify all existing land use-related policies towards efficient management of the region's land resources.

Targets

The Bicol RDP 2023-2028 aims to: (a) increase the mitigated greenhouse gas emissions; and (d) increase participation of POs/ CSOs in development bodies. attain zero casualties in terms of death, injured, and missing especially in times of disasters; (b) increase forest cover; (c)

Core Indicators

Table 16.1 presents the indicators and targets to enhance adaptive capacity and resilience of communities and ecosystems to climate change and natural hazards.

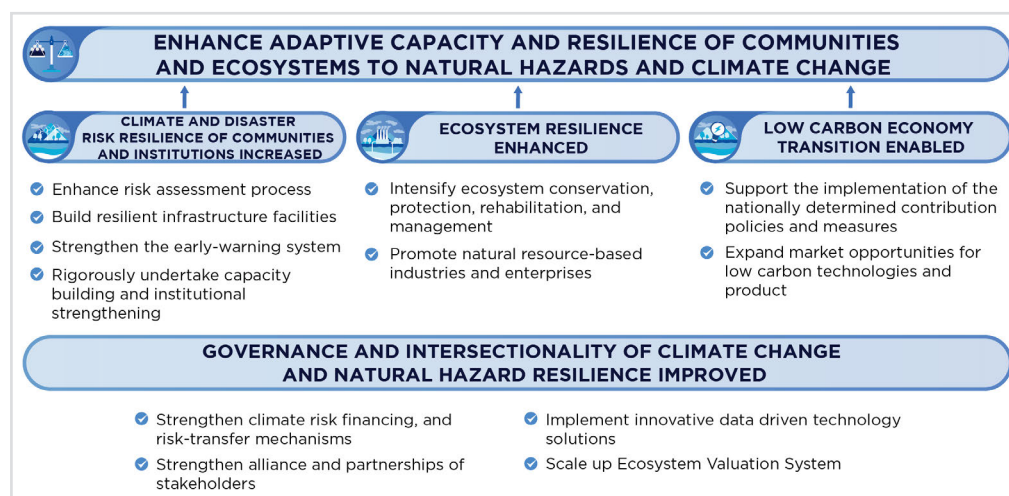
Table 16.1 Core Indicators to Enhance Adaptive Capacity and Resilience of Communities and Ecosystems to Climate Change and Natural Hazards

INDICATOR	BASELINE (YEAR)	ANNUAL PLAN TARGETS						MEANS OF VERIFICATION	RESPONSIBLE AGENCY
		2023	2024	2025	2026	2027	2028		
The number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population decreased									
• Number of deaths attributed to disasters decreased	15 (2022)	0						OCD Report	OCD
• Number of missing persons attributed to disasters decreased	14 (2022)	0						OCD Report	OCD
• Number of directly affected persons attributed to disasters decreased	428,576 (2022)	Decreasing						OCD Report	OCD
Forest cover increased	11.82 (2022)	11.83	11.88	11.96	12.03	12.10	12.20	Accomplishment Report	DENR
Mitigated GHG emissions increased*/ GHG emission reduced (CH4)									
• Industrial	0 (2019)	0.33	0.39	0.47	0.54	0.62	0.71	EMB Report	EMB
Number of LGUs with member CSOs/ POs in development bodies (LDC, LDRRMC)									
• LDRRMC	90 (2022)	100	103	108	111	115	120	DILG Report	DILG
• LDC	98 (2021)	100	103	105	111	115	120	DILG Report	DILG

Strategy Framework

Accelerating climate action and strengthening disaster and ecosystem resilience will contribute to the economic and social transformation for a prosperous, inclusive, and resilient society. By 2028, the following subsector outcomes will be achieved: (a) climate and disaster risk resilience of communities and institutions increased; (b) ecosystem resilience enhanced; and (c) low carbon economy transition enabled. These outcomes will be supported by improved governance and intersectionality of climate change and natural hazard resilience.

Figure 16.1 Strategy Framework to Enhance Adaptive Capacity and Resilience of Communities and Ecosystems to Climate Change and Natural Hazards



Strategies

The following strategies will be pursued to achieve the outcomes, and address the presented issues and challenges above.

Outcome 1: Climate and disaster risk resilience of communities and institutions increased

Implementation of prevention, mitigation, and preparedness initiatives will be scaled-up to prevent or at least minimize disaster-related damages, and ensure the readiness of the responders and communities. Heightened efforts will be observed at all levels to safeguard not only the lives of Bicolanos but also the economy and the ecosystem.

Enhance the risk assessment process. Appropriate technology and strengthening the capacities of duty bearers will be adopted in analyzing hazards, increasing the adaptive capacities, and reducing the vulnerabilities of the region. Standardization of risk assessment tools and methodologies will be pursued, and the adoption of probabilistic risk assessment processes will be promoted to the extent possible using geospatial data for more reliable and evidence-based information. The PAPs such as the

Vulnerability and Risk Assessment project of the MGB Region 5 will continuously be conducted including the preparation and updating of 1:10,000 and 1:50,000 scale geohazard maps. All disaster and climate-change-related data will be made available and accessible especially at the local level in order to facilitate the conduct of risk assessment. Results will then be integrated into various development plans and policies such as the DRRM plans, comprehensive development plans, and CLUPs to guide the duty bearers in decision making particularly in the identification of appropriate interventions to address the risks.

Build resilient infrastructure facilities. The construction of disaster-resilient infrastructure facilities that can stand the impact of extreme weather events and strong earthquakes will be promoted. Climate-smart and green-

infrastructure designs will be adopted especially in urban areas such as the cities of Legazpi and Naga. The region will support the updating of the National Building Code to ensure that buildings are resilient to withstand any hazards. The construction of permanent facilities will be located in safe areas, especially those frequently accessed by the population such as schools and hospitals. The government will support and closely work with the private sector especially those in the power, water, and communications sectors to explore new designs that will prevent lifeline facilities from being damaged or destroyed which become obstructions during and after a disaster. The building of resilient social infrastructure facilities such as housing, education, and health facilities will be pursued to support the attainment of liveable communities that is safe from various hazards (*See Chapter 13*). This includes the Construction of Disaster Resilient Evacuation Centers in Strategic Areas Program under the DPWH Region 5.

Strengthen the EWS. Strengthening the four key elements of EWS (risk knowledge; forecasting and warning; dissemination and communication; and preparedness and response) to achieve effective “end-to-end” EWS will be prioritized in the region. New EWS and devices such as telemetered automated weather stations and flood forecasting systems will be established and installed in strategic locations. The use of multi-hazards EWS will be adopted to include the use of innovative forecasting technologies. Mechanism to facilitate the generation of real-time data will be strengthened to ensure that information will be used effectively by duty bearers to protect and save lives. Warning messages based on the standardized alert levels such as those being used by PAGASA for TCs will be disseminated by concerned agencies and LGUs using

simple but effective communication channels such as mobile text alerts, social media, and house-to-house warning announcements. This will ensure that these warnings will reach the desired population on time. Further, monitoring of these EWS devices will be intensified in collaboration with LGUs and other stakeholders. Implementation of various initiatives such as the “Establishment of Near-Real Time Landslide Warning System Using Rainfall Thresholds Based on a Network of Gauging Stations and Satellite Rainfall Project” of MGB will be pursued.

Rigorously undertake capacity building and institutional strengthening. Institutional and individual capacities will be strengthened to ensure that the skills and the technical know-how of the duty bearers involve in DRR-CCAM initiatives are up-to-date. Efforts of regional and local key players in advocating socioeconomic resilience will be harmonized through close coordination across agencies. IEC materials will be disseminated at the local level to increase awareness of communities and duty bearers. This includes the use of Disaster Preparedness Manuals of DILG, and the hazard maps of MGB and PHIVOLCS.

Pre-disaster initiatives focusing on disaster preparedness, prevention, and mitigation will be strengthened from the regional to sub-regional levels. Capacity development such as the conduct of training on the preparation of contingency and continuity plans, trainings on the Basic Incident Command System, and Emergency Operations Center will be continued by both the private and public institutions including the OCD. Other capability building programs such as the acquisition of equipment and machinery, and conduct of community emergency drills to better prepare communities for slow and rapid onset events will also

be pursued. Stockpiling in preparation for emergencies will continuously be practiced.

The monitoring and evaluation of the effectiveness of CCA and DRR initiatives will also be strengthened using the established monitoring systems and mechanisms. As such, areas for collaboration among different monitoring groups in the region will be explored, such as the Regional Project Monitoring

Committee (RPMC) of the RDC and the Regional Project Monitoring and Evaluation Team (RPMET) of the Regional DRRM Council for monitoring of PAPs under the regional DRRM Plan and the rehabilitation and recovery plans. CCET will also be strengthened across levels. Further, the capabilities of the security forces and emergency responders will continuously be improved to ensure responsiveness and efficiency during emergencies (*See Subchapter 14*).

Outcome 2: Ecosystem resilience enhanced

The implementation of various initiatives to enhance ecosystem resilience will be pursued. Acknowledging the interconnectedness of the different ecosystems, which transcend political boundaries, the implementation of these efforts will require the convergence of various sectors or a whole-of-society approach. Sustainable consumption and production (SCP) will be accelerated by operationalizing the Philippine Action Plan for SCP which highlights the priority policies and action nodes aiming to internalize and integrate the social and environmental impacts of economic activities in the market system.

Intensify ecosystem conservation, protection, rehabilitation, and management. The sustainable management of resources will be intensified by operationalizing the integrated ecosystem-based management approach and adopting nature-based solutions. Initiatives to ensure the conservation, protection, and rehabilitation of natural resources will be continuously implemented through various programs, such as the National Greening Program and the Biodiversity Conservation Program of the DENR. As a renowned ecotourism destination in the country, the region will observe the carrying capacity of various ecotourism

sites to ensure the sustainability of the natural ecosystem (*See Chapter 8*). Implementation of policies that will allow the ecosystem to regenerate for a certain period will be implemented, as necessary, such as the closed fishing season in the major fishing grounds under the Philippine Fisheries Code. The restoration and rehabilitation of the Bicol River Basin and other major rivers in the region will also be pursued by implementing initiatives such as the Bicol River Basin Management Program which involve various activities including tree planting/growing activities, dredging, and the construction of gabions/ gabion check dams. Projects related to the management, conservation, rehabilitation and protection of various protected areas and key biodiversity areas in the Bicol Region such as the Tugbo watershed, Mayon Volcano Natural Park, and Ticao-Burias Pass Protected Seascape will also be implemented.

Monitoring of compliance of various establishments and entities to environmental policies will be strengthened, including compliance with the Clean Air Act, Clean Water Act, Solid Waste Management Act, and the Philippine Mining Act, among others, to ensure environmental quality (*See Subchapter 4.3*). This includes intensified and regular monitoring of mining

operators' compliance with environmental policies, which will be spearheaded by the MGB Region 5 in collaboration with the LGUs. Programs such as the establishment of *Minahang Bayan* will be pursued to address mining-related issues such as the proliferation of illegal SSM. Further, the implementation of payment for ecosystem services and the polluters' pay principle will be pursued, and the adherence of government and private establishments to the RA 9003 by practicing good waste management practices in the workplace will be promoted.

Promote natural resource-based industries and enterprises. Natural resource-based industries and enterprises will be promoted and expanded by implementing various initiatives that will strengthen the green and blue economies of the region toward sustainable natural resource management. The region will support enabling policies and programs that will provide more livelihood and economic opportunities, particularly for the poor and vulnerable upland and coastal communities. These include

the implementation of the Enhanced National Greening Program and the Community Based Biodiversity Friendly Social Enterprises for Rural Communities of the DENR, which aims to contribute to reducing poverty among poor households, indigenous people, and in coastal and urban areas by providing livelihood and economic opportunities. With the region's comparative advantage in the blue economy considering its vast coastal and marine resources, marine-based enterprises such as mud-crab fattening and prawn and milkfish growing will be supported by providing marketing support and capacity-building assistance to these MSMEs. The government and the private sector will work together to promote biodiversity-friendly enterprises and ecotourism sites. To guide the region's implementation of tourism initiatives to deliver a more competitive, sustainable, and inclusive tourism sector, the Bicol Regional Tourism Development Plan will be pursued. In turn, these initiatives will generate opportunities for Bicolanos (See Chapters 8, 9, and 10).

Outcome 3: Low carbon economy transition enabled

While climate change adaptation initiatives are vital to address the impact of climate change, it is important to implement initiatives that will reduce the region's GHG emissions in line with the country's commitment to combat climate change. The strategies to enable a low-carbon economy transition are as follows:

Support the Implementation of the Nationally Determined Contribution policies and measures (NDC PAMs). Existing measurement, monitoring, and verification systems on climate change in line with internationally agreed modalities, procedures, and guidelines

will be strengthened across levels. The development of the national carbon registry to monitor transactions will be supported including the establishment and localization of mechanisms to monitor carbon footprint and GHG emissions. Efforts to mitigate GHG emissions will be pursued. As such, the region will support the localization of the NDC PAMs to increase the capacity and contribution of LGUs to national mitigation actions.

Initiatives to reduce fossil fuel consumption will be supported and promoted by slowly shifting to the use of renewable energy sources such as solar and wind power. Programs such

as Energy efficiency and conservation measures will be scaled up (*See Chapter 13*) in support of the National Energy Efficiency and Conservation Program of the DOE. The full implementation of incentive mechanisms under existing laws, such as the Renewable Energy Act, Energy Efficiency and Conservation Act, Electric Vehicle Industry Development Act, Organic Agriculture Law, and Green Jobs Act will be supported to promote resource-efficient and cleaner production, particularly in the energy, transport, and industry sectors.

The region will also support the establishment of areas for carbon offsetting to advance the implementation of REDD+ activities. Further, acknowledging the important role of the coastal ecosystem, including mangroves and seagrasses, in absorbing and restoring carbon dioxide, efforts to protect and rehabilitate this blue carbon ecosystem will be strengthened by implementing various initiatives such as mangrove planting activities, regular clean-up drives, establishing buffer zones between coastal habitats and adjacent development, and strict implementation of related environmental policies aiming to protect this ecosystem.

Expand market opportunities for low-carbon technologies and products. Support for technology development, production, and commercialization of green and climate-smart products for the domestic and global markets will be provided, especially for local entrepreneurs and

start-up businesses. This includes helping MSMEs, local export producers, and suppliers access possible markets by strengthening their compliance with sustainability standards and enhancing their competitiveness (*See Chapters 8 and 9*). Initiatives such as the SETUP of DOST Region 5 will be implemented to encourage and assist MSMEs in adopting technological innovations, including low-carbon technologies and products.

The R&D agenda of the region related to sustainability, climate-smart products, and green technology will be supported particularly by the RRDIC. The RRDIC was established under the RDC to serve as the governing body of the R&D and innovation initiatives in Bicol (*See Chapter 10*).

To influence consumer behaviour and shift preferences toward green and sustainable products and services, various initiatives will be implemented in partnership with business enterprises to include ecolabelling and other green certification schemes. Guided by the Philippine Green Public Procurement Roadmap, the regional agencies and LGUs will support the implementation of the Green Public Procurement Program which seeks to procure goods, services, and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured (*See Chapters 9 and 15*).

Cross-cutting Strategy: Governance and intersectionality of climate change and natural hazard resilience improved

Strengthen climate risk financing and risk-transfer mechanisms.

Strengthening financial resilience will address disaster impacts and high economic losses brought by the frequent occurrence of extreme weather events, and enable the fast recovery of economic activities in disaster-affected communities. This is vital, especially for Bicol which is frequently affected by disasters. Thus, risk financing and risk transfer mechanisms will be strengthened at various levels. Disaster risk-transfer options will be enhanced by intensifying promotional activities and strengthening the capacities of agencies, LGUs, and communities to access available risk-transfer mechanisms such as crop and other insurance policies. These insurance policies will shift the burden of financial loss to other parties which will protect individuals and communities from future damage and losses brought by disasters. Programs of the GSIS will be maximized including the insurance for physical assets of the government sector including buildings. Information sharing with various stakeholders on the identification of possible funding sources, and implementation of policies related to risk transfer will also be strengthened. Further, access to various risk financing options for climate/ risk reduction finance such as the People Survival Fund and Green Climate Fund will be enhanced by building the capacities of LGUs and communities through the provision of up-to-date and appropriate information, training, and other readiness activities, and linking them to concerned agencies

or financial institutions. Initiatives to enhance PPP climate-smart investment promotion will also be supported.

Strengthen alliance and partnerships of stakeholders.

Acknowledging the important contribution of various sectors, particularly the CSOs, community volunteers, and private sector to attain resilience, building alliances and partnerships with these groups will be strengthened. Initiatives such as the establishment of a feedback mechanism, the regular updating of directories of partners, and ensuring the membership of the private sector and CSOs in various bodies to actively participate and push for their respective development advocacies will be observed at the local and regional levels. For instance, the RDC will ensure that the private sector and CSOs, through its private sector representatives who are members of the RDC will be provided the venue and opportunities to actively participate in nation-building activities (*See Chapter 15*).

Implement innovative data-driven technology solutions.

The information management system will be improved by implementing innovative data-driven technology solutions, including space science and technology applications for climate resilience and low-carbon development, which will contribute to addressing the gaps in data discrepancy and reliability. The development of the database or the Risk Registry will be promoted and be made

accessible to RLAs and LGUs. The data registry will contain up-to-date DRRM-related information and baseline data such as hazard maps, and vulnerability and risk assessments, including data on localized climate models and projections, as well as regional spatial data. The information management system will be enhanced by formulating policy measures to ensure information reliability and consistency at all levels. Climate and disaster-resilient technology for farmers and fisherfolks, including remote sensing technologies, will also be promoted (*See Chapter 7*).

Scale up Ecosystem Valuation System. To guide decision-makers towards better planning and programming of initiatives, the Ecosystem Valuation System will be strengthened in the region. This will be observed through

the preparation of the feasibility study of proposed programs and projects as well as the Project Evaluation Reports wherein the cost and benefits of the environment are being considered. Capacity-building activities on the use of various methodologies and tools to weigh the cost and benefits of proposed projects in the environment, such as multi-criteria analysis, will be conducted. Further, the Roadmap to Institutionalize Natural Capital Accounting in the Philippines will be utilized as a guide in the implementation of related initiatives. Considering that Sorsogon and Catanduanes were identified as two of the Priority Ecosystem Sites for Ecosystem Accounting in the Philippines by 2035-2040, initial preparation to include capacity-building activities in undertaking NCA will be pursued.

Legislative Agenda

Table 16.2 presents the priority legislations proposed to accelerate climate action and strengthen ecosystem and disaster resilience.

Table 16.2 Legislative Agenda to Accelerate Climate Action and Strengthen Ecosystem and Disaster Resilience

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
National Land Use Bill	This will be the primary basis for transforming and streamlining the structure of agencies under the executive branch based on their functions, mandates, roles, and processes. Its enactment will ensure the correct staffing requirements for agencies.	DENR, NEDA, LGUs
Carbon Taxation and Carbon Credit/Incentives Policy	Institutionalize the provision of incentives to households/ businesses that promote the use of renewable energy sources. Also include the establishment of a Carbon Footprint Monitoring System.	DENR, CCC
Amendments to the Water Code	Provide a legal framework for the institutionalization and operationalization of integrated water resources management to respond to the current trends and challenges such as climate variability affecting water supply and availability, and address institutional gaps and weaknesses.	DENR
Natural Capital Accounting (NCA) Act or the Philippine Valuation System for Ecosystem Services Act	Policy on the Philippine Valuation System for Ecosystem Services will ensure that the cost and benefits of the environment are fully taken into consideration in the decision-making process including the identification of necessary initiatives that will lead to sustainable development. Relatedly, the Philippine Environmental Assessment System needs to be strengthened as a planning and monitoring tool to ensure that possible environmental consequences of policies, plans, and programs are full-accounted for at the earliest stage of decision-making.	DENR, PSA

LEGISLATIVE AGENDA	RATIONALE	RESPONSIBLE AGENCY
Land Administration Reform Act	This bill aims to upgrade, systematize, and integrate the administration, management, and operations of the country's land resources. It also aims to improve, rationalize, and systematize land records, titling, documentation, and information systems into an open, updated, and reliable system. Land security enhances people's capacity to effectively manage their land resources and implement measures to adapt to climate change impacts	DENR

PART V

Plan Implementation, Monitoring, and Evaluation

17

Plan Implementation, Monitoring, and Evaluation



Plan Implementation, Monitoring, and Evaluation

The Bicol RDP 2023-2028 will provide strategies towards the achievement of the headline targets that will prioritize inclusive growth, poverty reduction, and resiliency. Its strategies will address issues and challenges on these priority areas and aim to regain the Bicol Region's pre-COVID-19 pandemic status as one of the fastest-growing regions in the country. Hence, the strategies will focus on economic and social transformation for a prosperous, inclusive, and resilient society. The strategies specified in each chapter will be operationalized by translating them into doable policies and PAPs that will be implemented by the RLAs, GOCCs, GFIs, LGUs, SUCs, and other agencies, as well as the private sector.

Policy Formulation and Project Development

The set of policies and regional priorities were determined in the RDP under each chapter. Initial policies that will support and usher in new strategies have been identified, and new policies will be formulated and advocated by the RDC in Congress, as necessary. Specific PAPs will be identified by the agencies and LGUs that will bring about the desired outcomes of the Plan.

To ensure a more focused, integrated, cohesive, and convergent implementation of various PAPs, the Operational Plan (OP) will be prepared, highlighting the list of policies, programs, and project ideas that will contribute to the attainment of each sector outcome. The OP, containing the project investment list or the list of projects which are candidates for project development, will bridge the planning and investment programming activities into viable, and implementation ready PAPs that are supportive of the RDP.

For the policy recommendations, policy

notes, and discussion papers will be prepared by the concerned duty-bearers. For the project ideas or proposals, project concept notes, proposals, pre-feasibility, feasibility studies or detailed engineering and design, as the case may be, will be prepared by the concerned duty-bearers to ascertain its overall feasibility and anticipate implementation problems. In the course of policy formulation, and project development, consultations with the various stakeholders will be ensured. All aspects of a policy, and project will be considered from the social, environmental, economic, and political points of view.

Cross-cutting concerns such as Disaster Risk Reduction and Management (DRRM), Climate Change Adaptation and Mitigation (CCAM), Gender and Development (GAD), good governance, human rights, and peace and security were considered in the planning stage and the same parameters will be used in the early project development stage.

Investment Programming and Financing

As provided under EO 325, s. 1996, the RDCs will coordinate the implementation of the RDPs and will review, prioritize, and endorse to the national government the annual and multi-year sectoral investment programs of the region for funding and implementation. Thus, viable PAPs approved by the RDC will be integrated into the RDIP, the accompanying document of the RDP.

Project concept notes, proposals, pre-feasibility studies, feasibility studies, detailed engineering and design, as the case may be, will be prepared by the concerned dutybearers to ascertain overall feasibility and anticipate implementation problems. The proponents will be encouraged to consult and coordinate with various stakeholders, including the local communities to ensure that all issues and concerns will be addressed. The PAPs will be reviewed and evaluated by the concerned RDC sectoral committees for endorsement to the RDC for appropriate action.

The preparation of the RDIP will be guided by the Comprehensive Investment

Programming Guidelines (CIPG) which provides the principles, processes, and requirements of the Bicol RDC in identifying and prioritizing PAPs for inclusion in the RDIP and the annual budget proposals of the agencies. The CIPG covers the priority PAPs of the RLAs, GOCCs, LGUs, SUCs, and special development bodies in the region that require national government support. The RDIP is a dynamic document where PAPs are updated and revalidated annually to ensure consistency with the national and regional development priorities. The annual time slice will be taken as the Annual Investment Program that serves as the basis for the annual budgets of the different agencies and SUCs.

Funding for the implementation of the government's PAPs will be sourced from the GAA, Official Development Assistance, corporate funds of GOCCs, GFIs, and locally generated revenues. The private sector will be tapped for PPP projects or joint venture agreements with the LGUs as provided for under the LGC of 1991.

Implementation Arrangements

The implementation of these policies, programs, activities, and projects (P/PAPs) will be undertaken by the concerned government agencies, SUCs, and LGUs in partnership with the private sector. Close coordination among these entities will be observed, particularly for big-ticket programs/ projects that are inter-sectoral in nature. During project implementation,

its status and immediate effects will be regularly reported and monitored. After implementation, project impacts will be assessed to determine project efficiency and effectiveness in contributing to the various strategies and ultimately to the sub-sector and sector outcomes, and the RDP intermediate goal.

Monitoring and Evaluation

The progress of the government's interventions, periodic reviews, and evaluations will be regularly monitored using existing monitoring and evaluation mechanisms.

Results Matrix. The RDP Results Matrices (RMs) serves as one of the accompanying documents of the Bicol RDP 2023-2028. Consistent with the management for results that the public sector is pursuing, the RMs will be used as a tool in monitoring the progress of the plan's implementation. It contains 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 Project Monitoring and Evaluation System. The implementation of the PAPs will be monitored by the RDC through the Regional Project Monitoring Committee, guided by the Regional Project Monitoring and Evaluation System (RPMES). The RPMES is a system that provides a scheme for monitoring and evaluating projects at the national, regional, provincial, and city/municipal levels, with the extensive and active participation of various government agencies, LGUs, and the private sector at all levels. It aims to facilitate program and project implementation, and devolve project facilitation, problem-solving, monitoring, and evaluation to the regional, provincial, city, and municipal levels.

The RPMES will be used to gather, process, and organize the status of the implementation of PAPs that contribute to the achievement of Bicol RDP outcomes and outputs. Through the RPMES, information on the physical and financial

status of projects at each level, including the problems that impede implementation will be made available. This facilitates subsequent recommendation to address issues during project implementation.

The Bicol RDC will enjoin all RLAs, GOCCs, SUCs, LGUs, PSOs, and other concerned stakeholders to carry out the monitoring function by their respective mandates, levels, and responsibilities. It will involve the evaluation of accomplishments against the plan objectives and targets.

Regional Development Report.

An annual RDR will be prepared to assess the Bicol RDP implementation using the RMs. Through the RDR, the achievements and gaps vi-a-vis the objectives and targets indicated in the Bicol RDP will be determined. Focus group discussions and/or sectoral and regional integration workshops will be conducted with stakeholders in the government and private sector to gather information on the extent to which the strategies, policies, programs, and projects implemented have contributed to achieving the Bicol RDP objectives. Other information that will be generated includes the contributing factors or best practices that facilitated project implementation, factors that delayed or hampered project implementation, and proposed actions that will facilitate project implementation.

Regional Statistical Development Program 2024-2029.

The Bicol Regional Statistical Development Program (RSDP) 2024-2029 sets the medium-term directions, strategies, and priorities in the Regional Statistical System for the generation and dissemination of statistical information to be used in policy analysis and formulation, planning and

programming, decision-making, and monitoring and evaluation. The Bicol RSDP 2024-2029 will serve as a blueprint of priority statistical development programs and activities to be undertaken by the region in addressing the data requirements of the Bicol RDP 2023-2028.

Other reports. Other sources of

information that can be used as bases in the assessment of Bicol RDP implementation include, but are not limited to, the Bicol Development Updates, agency or LGU annual reports, the Regional Economic Situationer, the regional project monitoring and evaluation reports, and other reports that contain information on PAPs.

Advocacy

To ensure regional synergy, the Plan will be strongly advocated by all the stakeholders to gain support, particularly from the private sector. The effective implementation of the RDP, therefore, calls for efficient coordination and collaboration between and among government agencies at all levels, the private sector, civil society, and development partners.

The Regional Plan Advocacy Committee (RPAC) was created as an ad hoc committee solely to advocate the implementation

of the RDP among regional government entities, LGUs, private sector and CSOs, the academe, media partners, and the public. The Committee will be chaired by the Philippine Information Agency (PIA) Region 5 and co-chaired by DILG Region 5 with members from the following agencies: NEDA, DOH, DepEd, CHED, TESDA, DHSUD, DOLE, DSWD, DA, DTI, DOT, DENR, DOST, DPWH, PPA, DICT, NIA, OCD, PNP, and PA, and three to five RDC-accredited private sector organizations.

Midterm Review and Updating

A midterm review and updating of the RDP 2023-2028 will be conducted in 2025 to assess its performance and come up with catch-up strategies to achieve the desired outcomes. The RDC will lead the updating through its four sectoral committees

(Development Administration, Economic, Social, and Infrastructure) that will serve as the Planning Committees. The NEDA will provide technical and administrative support to these four planning committees.

List of Acronyms

4Ps	<i>Pantawid Pamilyang Pilipino Program</i>
9ID	9th Infantry Division
A&D	Alienable and Disposable
ACPC	Agricultural Credit Policy Council
ADR	Alternative Dispute Resolution
ADSDPP	Ancestral Domain Sustainable and Protection Plan
AFF	Agriculture, Forestry, and Fishing
AFP	Armed Forces of the Philippines
AI	Artificial Intelligence
ALMASOR	Albay – Masbate – Sorsogon
ALPAS	<i>Ahon Lahat, Pagkaing Sapat</i>
ALS	Alternative Learning System
AMIA	Adaptation and Mitigation Initiative in Agriculture
AO	Administrative Order
APIS	Annual Poverty Indicator Survey
AQMS	Air Quality Monitoring Stations
AQRF	ASEAN Qualifications Reference Framework
ARTA	Anti-Red Tape Authority
ASEAN	Association of Southeast Asian Nations
ASF	African Swine Fever
BAC	Bids and Awards Committee
BARM	Bangsamoro Autonomous Region in Muslim Mindanao
BCARRD	Bicol Consortium for Agriculture, Aquatic and Natural Resources Research and Development
BCHRD	Bicol Council for Health Research and Development
BCIERRTRD	Bicol Council for Industry, Energy, and Emerging Technology Research and Development
BEFF	Basic Education Facilities Fund
BHS	Barangay Health Station
BIA	Bicol International Airport
BINs	Barangay Information Networks
BJMP	Bureau of Jail Management and Penology
BMC	Bicol Medical Center
BPATs	Barangay Peacekeeping Action Teams
BRGHMC	Bicol Region General Hospital, and Geriatric Medical Center
BRHMC	Bicol Regional Hospital and Medical Center
BRTC	Bicol Regional Tourism Committee

BRTTH	Bicol Regional Training and Teaching Hospital
BS	Bachelor of Science
BSP	<i>Bangko Sentral ng Pilipinas</i>
BSTC	Bicol Science and Technology Centrum
BSWM	Bureau of Soils and Water Management
CAA-CVAs	Conflict Affected and - Vulnerable Areas
CAAP	Civil Aviation Authority of the Philippines
CALABARZON	Cavite - Laguna - Batangas - Rizal - Quezon
CARP	Comprehensive Agrarian Reform Program
CatSU	Catanduanes State University
CBDR	Community-based Drug Rehabilitation
CBSUA	Central Bicol State University of Agriculture
CCAM	Climate Change Adaptation and Mitigation
CCC	Climate Change Commission
CDC	Center for Disease Control and Prevention
CDRA	Climate and Disaster Risk Assessment
CEU	Central Evidence Unit
CHED	Commission on Higher Education
CHR	Commission on Human Rights
CICL	Children In Conflict with the Law
CIPG	Comprehensive Investment Programming Guidelines
CLUP	Comprehensive Land Use Plan
CMCI	Cities and Municipalities Competitiveness Index
CMTS	Cellular Mobile Telephone Service
CNSC	Camarines Norte State College
ComDev	Committee on Devolution
CPH	Census of Population and Housing
CPP-NPA-NDF	Communist Party of the Philippines - New People's Army - National Democratic Front
CREATE	Corporate Recovery and Tax Incentives for Enterprises
CSC	Civil Service Commission
CSE	Crime Solution Efficiency
CSO	Civil Society Organization
CSPC	Camarines Sur Polytechnic Colleges
CSPP	Conflict-Sensitive and Peace-Promoting
CTG	Communist Terrorist Group
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DENR	Department of Environment and Natural Resources
DepEd	Department of Education

DHSUD	Department of Human Settlements and Urban Development
DICT	Department of Information and Communications Technology
DILEEP	DOLE Integrated Livelihood and Emergency Program
DND	Department of National Defense
DOF-BLGF	Department of Finance - Bureau of Local Government Finance
DOH	Department of Health
DOJ	Department of Justice
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	Disaster Risk Reduction
DRR-CCA	Disaster Risk Reduction and Climate Change Adaptation
DRRM	Disaster Risk Reduction and Management
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
DTP	Devolution Transition Plan
EBEIS	Enhanced Basic Education Information System
E-BOSS	Electronic Business One-Stop Shops
EBT	Enterprise-Based Training
ECA	Environmentally Critical Areas
ECLIP	Enhanced Comprehensive Local Integration Program
ECs	Electric Cooperatives
EGMP	E-Government Master Plan
EHAP	Emergency Housing Assistance Program
ENIPAS	Expanded National Integrated Protected Areas System
EO	Executive Order
EODB-EGSD	Ease of Doing Business and Efficient Government Service Delivery
ePFMAT	Enhanced Public Financial Management Assessment Tool
ESC	Educational Service Contracting
ESG	Environmental, Social, and Governance
EWS	Early Warning System
F1K	First 1000 Days
FDA	Food and Drug Administration
FDI	Foreign Direct Investment
FDP	Full Disclosure Policy

FIES	Family Income and Expenditure Survey
FMRs	Farm-to-Market Roads
FOI	Freedom of Information
FPOs	Forest Protection Officers
FSRF	Financial Subsidy to Rice Farmers
FTA	Free Trade Agreements
GAA	General Appropriations Act
GAD	Gender and Development
GAHP	Good Animal Husbandry Practices
GAP	Good Agricultural Practices
GAqP	Good Aquaculture Practices
GASTPE	Government Assistance to Students and Teachers in Private Education
GCTA	Good Conduct Time Allowance
GDP	Gross Domestic Product
GERD	Gross Expenditure on Research and Development
GFA	Geographic Focus Areas
GFIIs	Government Financial Institutions
GHG	Greenhouse Gas
GIDAs	Geographically Isolated and Disadvantaged Areas
GII	Global Innovation Index
GIP	Government Internship Program
GIS	Geographic Information System
GMP	Good Manufacturing Practice
GOCCs	Government-Owned and Controlled Corporations
GPP	Green Public Procurement
GRDP	Gross Regional Domestic Product
GSIS	Government Service Insurance System
GVA	Gross Value Added
HADR	Humanitarian Assistance and Disaster Response
HCPN	Health Care Provider Network
HDMF	Home Development Mutual Fund
HEI	Higher Education Institution
HFEP	Health Facilities Enhancement Program
HHs	Households
HIV	Human Immunodeficiency Virus
HLS	Health and Life Science
HR	Human Resource
HRH	Human Resources for Health
HRMO	Human Resource Management Office

HUCs/ICCs	Highly Urbanized Cities and Independent Component Cities
IAD	Integrated Area Development
IATF-EID	Inter-Agency Task Force for the Management of Emerging Infectious Diseases
IBP	Integrated Bar of the Philippines
ICC	Investment Coordination Committee
ICC/IP	Indigenous Cultural Communities/Indigenous Peoples
ICT	Information and Communications Technology
IEC	Information, Education, and Campaign
IEC	Information, Education, and Communication
ILO	International Labour Organization
IMT	Industrial, Manufacturing, and Transport
INSEAD	<i>Institut Européen d'Administration des Affaires</i>
IP	Indigenous Peoples
IPA	Investment Promotion Agency
IPMRs	Indigenous Peoples Mandatory Representatives
IPOPHL	Intellectual Property Office of the Philippines
IPRA	Indigenous Peoples' Rights Act
IR	Industrial Revolution
ISF	Informal Settler Families
ISO	International Organization for Standardization
IT-BPM	Information Technology and Business Process Management
ITO	Information Technology Outsourcing
IWRM	Integrated Water Resources Management
JOW	Justice on Wheels
JSCC	Justice Sector Coordinating Council
JZ	Justice Zone
KADIWA	<i>Kadiwa ni Ani at Kita</i>
KAYA	<i>Kapital Access for Young Agripreneurs</i>
KIST	Knowledge, Innovation, Science and Technology
KKDAT	<i>Kabataan Kontra Droga at Terorismo</i>
KKDK	<i>Katatagan, Kalusugan at Damayan ng Komunidad</i>
KMME	KAPATID Mentor ME
KonSulTa	<i>Konsultasyong Sulit at Tama</i>
KPH	Kilometers Per Hour
KPO	Knowledge Process Outsourcing
KSA	Key Shelter Agencies
LADAC	Local Anti-Drug Abuse Council
LAWIN	Landscape and Wilderness Identification

LBP	Land Bank of the Philippines
LCE	Local Chief Executives
LDC	Local Development Council
LEDIPO	Local Economic Development and Investment Promotion Office
LET	Licensure Examination for Teachers
LFPR	Labor Force Participation Rate
LGC	Local Government Code
LGU	Local Government Unit
LIS	Learner Information System
LMI	Labor Market Information
LMIS	Labor Market Information System
LSB	Local Special Bodies
LSDF	Luzon Spatial Development Framework
LUCs	Local Universities and Colleges
LUDIP	Land Use Development and Infrastructure Plan
LUZIS	Land Use and Zoning Information System
Mbps	megabits per second
MC	Memorandum Circular
MCCT	Modified Conditional Cash Transfer
MCM	million cubic meters
ME	Micro-Entrepreneurs
MGB	Mines and Geosciences Bureau
MIS	Management Information System
MPCF	Mariners Polytechnic Colleges Foundation
mPhilGEPS	Modernized Philippine Government Electronic Procurement System
MRC	Medical Reserve Corps
MRF	Material Recovery Facilities
MSMEs	Micro, Small, and Medium Enterprises
MT	metric tons
MUP	Military and Uniformed Personnel
NAMRIA	National Mapping and Resource Information Agency
NAT	National Achievement Test
NBS	Nature-based Solutions
NCA	Natural Capital Accounting
NCR	National Capital Region
NCs	<i>Negosyo</i> Centers
NDC PAMs	Nationally Determined Contribution Policies and Measures
NDHS	National Demographic and Health Survey

NDRRF	National Disaster Risk Reduction Framework
NDRRMP	National Disaster Risk Reduction and Management Plan
NEDA	National Economic and Development Authority
NFA	National Food Authority
NGA	National Government Agency
NGCP	National Grid Corporation of the Philippines
NGOs	Non-governmental Organizations
NGP	National Government Portal
NHA	National Housing Authority
NHIP	National Health Insurance Program
NHRHMP	National Human Resources for Health Master Plan
NIA	National Irrigation Administration
NIASD	National Innovation Agenda and Strategy Document
NICER	Niche Centers in the Regions
NIMP	National Irrigation Master Plan
NJIS	National Justice Information System
NMS	National Migration Survey
NNC	National Nutrition Council
NPRMS	National Policy on Regulatory Management System
NQI	National Quality Infrastructure
NSFI	National Strategy for Financial Inclusion
NSSMP	National Sewerage and Septage Management Program
NTA	National Tax Allotment
NTC	National Telecommunications Commission
NWSRM	National Water Security Road Map
OCD	Office of Civil Defense
OFWs	Overseas Filipino Workers
OPAPRU	Office of the Presidential Adviser on Peace, Reconciliation, and Unity
OPT	Operation <i>Timbang</i>
OSAEC	Anti-Online Sexual Abuse or Exploitation of Children
OSY	Out-of-School Youth
OTOP	One Town, One Product
OWWA	Overseas Workers Welfare Administration
PA	Philippine Army
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAMANA	<i>Payapa at Masaganang Pamayanan</i>
PAO	Public Attorney's Office
PAPs	Programs, Activities, and Projects

PBRAP	PhilSys Birth Registration Assistance Project
PCG	Philippine Coast Guard
PCIC	Philippine Crop Insurance Corporation
PCIEETRD	Philippine Council for Industry, Energy and Emerging Technology Research and Development
PCM	Provinces, Cities, and Municipalities
PCPN	Primary Care Provider Network
PCVE	Preventing and Countering Violent Extremism
PD	Presidential Decree
PDCs	Pyroclastic Density Currents
PDEA	Philippine Drug Enforcement Agency
PDL	Persons Deprived of Liberty
PDNA	Post-Disaster Needs Assessment
PDP	Philippine Development Plan
PDPFP	Provincial Development and Physical Framework Plan
PEAC	Private Education Assistance Committee
PES	Payment for Environmental Services
PESO	Public Employment Service Office
PEZA	Philippine Economic Zone Authority
PHFDP	Philippine Health Facility Development Plan
PHIC	Philippine Health Insurance Corporation
PHILGUARANTEE	Philippine Guarantee Corporation
PhilSys	Philippine Identification System
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PIA	Philippine Information Agency
PMNP	Philippine Multisectoral Nutrition Project
PNPKI	Philippine National Public Key Infrastructure
PNR	Philippine National Railways
POC	Peace and Order Council
POEA	Philippine Overseas Employment Administration
POPCOM	Commission on Population
POs	People's Organizations
PPA	Philippine Ports Authority
PPAN	Philippine Plan of Action for Nutrition
PPP	Public-Private Partnership
PQF	Philippine Qualifications Framework
PRC	Professional Regulation Commission
PRIME-HRM	Program to Institutionalize Meritocracy and Excellence in Human Resource Management
PSA	Philippine Statistics Authority

PSF	Philippine Skills Framework
PSOs	Private Sector Organizations
PSTO	Provincial Science and Technology Offices
PUV	Public Utility Vehicle
PWD	Persons with Disability
PWSSMP	Philippine Water Supply and Sanitation Master Plan
QRU	Quinta, Rolly, and Ulysses
QS	Quacquarelli Symonds
R&D	Research and Development
RA	Republic Act
RAP-LGU	Resettlement Assistance Program for Local Government Units
RCCCT	Regular Cash Conditional Cash Transfer
RCEF	Rice Competitiveness Enhancement Fund
RCEP	Regional Comprehensive Economic Partnership
RCP	Representative Concentration Pathway
RCSP	Retooled Community Support Program
RCTWG	Regional CBIA Technical Working Group
RDC	Regional Development Council
RDI	Research, Development, and Innovation
RDIP	Regional Development Investment Program
RDP	Regional Development Plan
RDR	Regional Development Report
RDRRMC	Regional Disaster Risk Reduction and Management Council
RE	Renewable Energy
REDD	Reducing Emissions from Deforestation and Forest Degradation
ResPFP	Responsible Parenthood and Family Planning
RGADC	Regional Gender and Development Committee
RHU	Rural Health Unit
RIIC	Regional Inclusive Innovation Center
RLAs	Regional Line Agencies
RM s	Results Matrices
RORO	Roll-on/roll-off
ROTC	Reserve Officers' Training Corps
ROW	Right-of-Way
RPAC	Regional Plan Advocacy Committee
RPPF	Regional Physical Framework Plan
RPMES	Regional Project Monitoring and Evaluation System
RPOC	Regional Peace and Order Council

RRCY	Regional Rehabilitation Center for Youth
RRDIC	Regional Research, Development, and Innovation Committee
RSDF	Regional Spatial Development Framework
RTF-ELCAC	Regional Task Force to End Local Communist Armed Conflict
RTWPB	Regional Tripartite Wages and Productivity Board
S4CP	Science for Change Program
SAFDZ	Strategic Agricultural and Fisheries Development Zones
SALIGAN	<i>Sentro ng Alternatibong Lingap Panlegal</i>
SALINTUBIG	<i>Sagana at Ligtas na Tubig para sa Lahat</i>
SALN	Statement of Assets, Liabilities, and Net Worth
SBDP	Support to Barangay Development Program
SBFp	School-Based Feeding Program
SBM	School-Based Management
SC	Supreme Court
SCP	Sustainable Consumption and Production
SDGs	Sustainable Development Goals
SEC	Securities and Exchange Commission
SETUP	Small Enterprise Technology Upgrading Program
SGC	School Governing Council
SGLG	Seal of Good Local Governance
SHFC	Social Housing Finance Corporation
SHS	Senior High School
SHS VP	Senior High School Voucher Program
SIAD	Sub-Integrated Area Development
SLF	Sanitary Landfills
SLH	South Long Haul
SLM	Self-Learning Module
SLP	Sustainable Livelihood Program
SMERA	Small and Medium Enterprise Roving Academy
SMP	Septage Management Programs
SPES	Special Program for Employment of Students
SREs	Service and Repair Enterprises
SSM	Small-Scale Mining
SSR	Self-Sufficiency Ratio
SSS	Social Security System
STEAM	Science, Technology, Engineering, Agriculture and Mathematics
STI	Science, Technology, and Innovation
STPs	Septage Treatment Plants

SUCs	State Universities and Colleges
SURE	Survival and Recovery
SWM	Solid Waste Management
TB	Tuberculosis
TCMP	Therapeutic Community Modality Program
TCs	Tropical Cyclones
TD	Tropical Depression
TEP	Total Electrification Program
TESDA	Technical Education and Skills Development Authority
THE	Times Higher Education
TMT	Technology, Media, and Telecommunication
TNK	<i>Trabaho Negosyo Kabuhayan</i>
TOE	Tourism-Oriented Establishments
TR5	Toll Road 5
TRAIN	Tax Reform for Acceleration and Inclusion
TRE	Tourism-Related Enterprises
Triple C	Camarines Norte, Camarines Sur, and Catanduanes
TSS	Teachers' Salary Subsidy
TTMF	Temporary Treatment Monitoring Facilities
TUPAD	<i>Tulong Panghanapbuhay sa Ating</i> Disadvantaged/ Displaced Workers
TVET	Technical and Vocational Education and Training
UFRD	Urban Functions in Rural Development
UHC	Universal Health Care
UHC-IS	UHC Integration Sites
UNESCO	United Nations Educational, Scientific, and Cultural Organization
VAWC	Violence Against Women and Children
VCP	Victims Compensation Program
VIP	Vaccine Institute of the Philippines
WGI	Worldwide Governance Indicators
WHO	World Health Organization
WJP	World Justice Project

Bicol RDP 2023-2028

Planning Committees

Development Administration Committee

Armed Forces of the Philippines
Bureau of Fire Protection
Bureau of Jail Management and Penology
Cooperative Development Authority
Commission on Human Rights
Civil Service Commission
Department of Budget and Management
Department of Human Settlements and Urban Development
Department of the Interior and Local Government
Department of Finance-Bureau of Local Government Finance
Department of Justice-National Prosecution Service
National Economic and Development Authority
National Intelligence Coordinating Agency
Office of Civil Defense
Philippine Information Agency
Presidential Management Staff
Philippine National Police
Philippine Statistics Authority

Secretariat: NEDA - Policy Monitoring and Planning Division

Economic Development Committee

Bangko Sentral ng Pilipinas
Bureau of Fisheries and Aquatic Resources
Cooperative Development Authority
Department of Agrarian Reform
Department of Agriculture
Department of Environment and Natural Resources
Department of Labor and Employment
Department of Science and Technology
Department of Tourism
Department of Trade and Industry

Mines and Geosciences Bureau
National Economic and Development Authority
National Food Authority
National Intelligence Coordinating Agency
Philippine Fiber Development Authority
Philippine Coconut Authority

Secretariat: NEDA - Project Development, Investment Programming and Budgeting Division

Infrastructure Development Committee

Civil Aviation Authority of the Philippines
Department of Energy
Department of Transportation
Department of Public Works and Highways
Department of Information and Communications Technology
Land Transportation Franchising and Regulatory Board
Land Transportation Office
Maritime Industry and Naval Authority
National Economic and Development Authority
National Electrification Administration
National Irrigation Authority
National Intelligence Coordinating Agency
National Telecommunications Commission
Philippine Ports Authority

Secretariat: NEDA - Project Monitoring and Evaluation Division

Social Development Committee

Cooperative Development Authority
Commission on Higher Education
Commission on Population and Development
Department of Education
Department of Health
Department of Human Settlements and Urban Development
Department of Labor and Employment
Department of Social Welfare and Development
National Commission on Indigenous Peoples

National Economic and Development Authority
National Intelligence Coordinating Agency
National Nutrition Council
National Youth Commission
Overseas Workers Welfare Administration
Technical Education Skills Development Authority

Secretariat: NEDA - Development Research Division

Other Agencies

Bicol Consortium for Agriculture, Aquatic and Natural Resources Research and Development
Bicol Consortium for Industries, Energy and Emerging technology Research and Development
Bicol Consortium for Health Research and Development
Climate Change Commission
Environmental Management Bureau
Philippine National Railways
National Bureau of Investigation
National Commission for Culture and the Arts
National Housing Authority
Philippine Economic Zone Authority
Philippine Institute of Volcanology and Seismology
Securities and Exchange Commission

State Universities and Colleges

Bicol State College of Applied Sciences and Technology
Bicol University
Camarines Norte State College
Camarines Sur Polytechnic Colleges
Catanduanes State University
Central Bicol State University of Agriculture
Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and Technology
Partido State University
Sorsogon State University

Private Sector Representatives

Romeo S. Tan, Business	Rosemarie Q. Rey, Albay
Carlos Bernardo S. Lozano, Camarines Sur	Benigno R. Elevado, Camarines Norte
Rev. Fr. Eric B. Martillano, Fishers	Santiago K. Cervantes, Farmer
Elmer T. Sto. Domingo, Jr., Naga City	Rev. Fr. Renato R. Dela Rosa, Catanduanes
Jennifer M. Arao, PWD	Al P. Orlanes, Masbate
Jose M. Medina, Jr., Tourism	Caroline M. Ubalde, Sorsogon
Aurora R. Chavez-De Guzman, Women	Alfred M. Nimo, Youth and Students
Dante L. Encinas, Labor	

Local Government Units

Provincial Governments

Provincial Government of Albay
Provincial Government of Camarines Norte
Provincial Government of Camarines Sur
Provincial Government of Catanduanes
Provincial Government of Masbate
Provincial Government of Sorsogon

City Governments

City Government of Iriga	City Government of Naga
City Government of Legazpi	City Government of Sorsogon
City Government of Ligao	City Government of Tabaco
City Government of Masbate	

Municipalities

Aroroy	Basud	Cabusao
Baao	Bato, Camarines Sur	Calabanga
Bacacay	Bato, Catanduanes	Camalig
Bagamanoc	Batuan	Camaligan
Balatan	Bombon	Canaman
Baleno	Buhi	Capalonga
Balud	Bula	Caramoan
Baras	Bulan	Caramoran
Barcelona	Bulusan	Casiguran

Castilla	Malilipot	Prieto Diaz
Cataingan	Malinao	Ragay
Cawayan	Mandaon	Rapu-Rapu
Claveria	Manito	Sagñay
Daet	Matnog	San Andres
Daraga	Mercedes	San Fernando, Camarines Sur
Del Gallego	Milagros	San Fernando, Masbate
Dimasalang	Milaor	San Jacinto
Donsol	Minalabac	San Jose
Esperanza	Mobo	San Lorenzo Ruiz
Gainza	Monreal	San Miguel
Garchitorena	Nabua	San Pascual
Gigmoto	Oas	San Vicente
Goa	Ocampo	Sipocot
Gubat	Palanas	Siruma
Guinobatan	Pamplona	Sta. Elena
Irosin	Pandan	Sta. Magdalena
Jose Panganiban	Panganiban	Sto. Domingo
Jovellar	Paracale	Talisay
Juban	Pasacao	Tigaon
Labo	Pilar	Tinambac
Lagonoy	Pili	Tiwi
Libmanan	Pio V. Corpuz	Uson
Libon	Pioduran	Viga
Lupi	Placer	Vinzons
Magallanes	Polangui	Virac
Magarao	Presentacion	

Civil Society Organizations

Caritas Virac Justice and Peace
 CN Federation of Cooperatives
 Coastal Community Resources and Livelihood Development, Inc.
 EcoDev
Lingap para sa Kalusugan ng Sambayanan, Inc.
Malaya Ka, Inc.
 Socio Pastoral Action Center Foundation, Inc.
 Sorsogon Pili Producers Cooperative
Tabang Bikol Movement

Bicol RDP 2023-2028

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