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REGIONAL DEVELOPMENT COUNCIL REGION IV-A (CALABARZON)

RDC RESOLUTION NO. IV-A-03-2023

"APPROVING THE CALABARZON REGIONAL DEVELOPMENT PLAN 2023-2028"

- WHEREAS, on September 16, 2022, the National Economic and Development Authority (NEDA) issued the planning guidelines for the Philippine Development Plan (PDP) and Regional Development Plan (RDP) 2023-2028 to prescribe the organizational set-up, activities, timetable, and planning considerations;
- WHEREAS, the RDP, which is the PDP's counterpart at the regional level, includes assessment, challenges, strategies, targets, and legislative agenda of key sectors to attain an economic and social transformation towards a prosperous. inclusive, and resilient CALABARZON by 2028;
- WHEREAS, the strategies are also geared towards the attainment of Ambisyon Natin 2040, the 2030 Agenda for Sustainable Development, and the 8-Point Socioeconomic Agenda of the current administration;
- WHEREAS, the formulation process involved a series of consultations with regional stakeholders to ensure the RDP's responsiveness to the needs of the region and encourage ownership and accountability on its implementation;
- WHEREAS, each RDP chapter took into consideration the mainstreaming of gender and development, migration and development, culture and values, human rights principles, climate resilient and low carbon development, among others;
- WHEREAS, the RDC Sectoral Committees endorsed the RDP chapters to the RDC for approval during their 1st quarter 2023 meeting;
- NOW THEREFORE, on motion duly seconded, BE IT RESOLVED AS IT IS HEREBY RESOLVED, to approve the CALABARZON Regional Development Plan 2023-2028.
- this 2nd day of March 2023 at the NEDA Region IV-A, Barangay Milagrosa, SIGNED. Calamba City, Laguna.

Certified Correct:

Motor

CARMEL P. MATABANG **RDC Secretary**

Attested by:

HERMILANDO I. MANDANAS

RDC Chairperson



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Message from the Secretary of **Socioeconomic Planning**



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 Region IV-A for its commitment to formulating the CALABARZON Regional Development Plan 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, nongovernment 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 Region IV-A and throughout the country.

ARSENIO M. BALISACAN

Secretary National Economic and Development Authority

Message



CALABARZON Regional Development Council (RDC) approved the CALABARZON Regional Development Plan (RDP) 2023-2028 on March 2, 2023, as the blueprint for regional development. It spells out the priority interventions and strategies of the region until 2028 to attain full economic recovery and sustain its gains in the previous years.

Before the COVID-19 pandemic, the region was enjoying fast economic growth with a stable employment rate and manageable poverty incidence. However, the pandemic and other natural disasters, including the eruption of Taal Volcano, hampered positive economic growth, which led to low production, higher prices, job loss, shutdowns of businesses, and even loss of lives. Hence, the last two years were spent developing and implementing necessary measures to address the daunting challenges brought about by the pandemic and other natural disasters.

The RDC, through the RDP, aims to restore the region's economy to its high growth rate by ensuring affordability and accessibility of basic goods and services, reducing vulnerabilities, and creating more jobs, consistent with the current administration's eight-point Socioeconomic Agenda.

As the link between the national and local governments, the RDC continues to champion the importance of convergence and participatory governance. With the completion of the CALABARZON RDP, it is imperative that the RDC actively leads in coordinating development efforts following the directions and strategies enunciated in the Plan. This will allow the region to realize its desired regional outcomes within the next six years thus, paving the way for a brighter future for the generations to come.

Finally, I want to thank those involved in the RDP's development, including the regional line agencies, local government units, higher education institutions, the private sector, and other regional stakeholders. With everyone's continued support in the plan's implementation, I am confident that we will move closer to building a more inclusive, resilient, and prosperous CALABARZON and attain the country's long-term vision of a Matatag, Maginhawa, at Panatag na Buhay para sa Lahat.

HON. HERMILANDO I. MANDANAS

RDC Chairperson

Foreword



In 2021, CALABARZON recorded the fastest economic growth among all regions in the country, with the Gross Regional Domestic Product growing at 7.6 percent from the previous year. Firmer signs of economic recovery were observed as industries and other business establishments operated at full capacity, and the mobility of individuals and goods increased. Even with these gains, the challenge of ensuring sustainable and inclusive growth remains the same.

The COVID-19 pandemic and the calamities in the last few years significantly affected the region's attainment of its medium-term development goals. While important reforms to accelerate economic transformation were laid down by the past administrations, risks to economic growth and uncertainties remain, such as global value chain disruptions, geopolitical and trade tensions, high inflation rates, and disasters.

Guided by the country's long-term vision of a prosperous middle class-society where no one is facing economic challenges and anchored on the current administration's eight-point Socioeconomic Agenda, the CALABARZON Regional Development Plan (RDP) 2023-2028 is the region's blueprint for development in the next six years. The Regional Development Council led the formulation of the plan through a series of consultative workshops to ensure inclusivity and responsiveness to the region's needs. The plan outlines major strategies and priority programs, and projects that will propel the region to a higher growth path while ensuring everyone benefits from the fruits of development.

The CALABARZON RDP 2023-2028 has 16 chapters with strategic interventions focused on reinvigorating job creation and accelerating poverty reduction by developing and protecting the capabilities of individuals and families and transforming the production sectors to generate more quality jobs and competitive products. These strategies will be supported by an enabling environment characterized by good governance, regulatory efficiency, financial inclusion, upgraded infrastructures, and disaster resilience.

The realization of the RDP will contribute to the attainment of the country's long-term vision of a

matatag, maginhawa, at panatag na buhay para sa lahat. Thus, I encourage everyone to use the plan to guide their development initiatives in CALABARZON to ensure that we are all moving towards the country's common goal. I also invite all our development partners from the public and private sectors to participate and support the plan's implementation so that together, we will move closer to creating a globally competitive industrial region that its people enjoy.

AGNES E. TOLENTINO
NEDA Region IV-A Director and
RDC Vice Chairperson

Acknowledgement

The completion of the CALABARZON Regional Development Plan 2023-2028 was made possible through the collaborative efforts of the members of the Regional Development Council and its partners. We thank the following for their immense contribution to the completion of the Plan:

- Provincial Government of Cavite
- Provincial Government of Laguna
- Provincial Government of Batangas
- Provincial Government of Rizal
- Provincial Government of Quezon
- City Government of Antipolo
- City Government of Bacoor
- City Government of Batangas
- City Government of Biñan
- City Government of Cabuyao
- City Government of Calaca
- City Government of Imus
- City Government of Lipa
- City Government of Lucena
- City Government of San Pablo
- City Government of Santa Rosa
- City Government of Santo Tomas
- Municipal Government of Amadeo
- Municipal Government of Cainta
- Municipal Government of Calatagan
- Municipal Government of Cavinti
- Municipal Government of Cuenca
- Municipal Government of Los Baños
- Municipal Government of Mendez-Nuñez
- Municipal Government of Morong

- Municipal Government of Pagsanjan
- Municipal Government of Pila
- Municipal Government of Real
- Municipal Government of San Juan
- Municipal Government of San Mateo
- Municipal Government of Silang
- Municipal Government of Siniloan
- Municipal Government of Tingloy
- Anti-Red Tape Authority South Luzon
- Armed Forces of the Philippines Southern Luzon Command
- Bangko Sentral ng Pilipinas South Luzon Regional Office
- Bureau of Fire Protection Region IV-A
- Bureau of Fisheries and Aquatic Resources Region IV-A
- Bureau of Jail Management and Penology Region IV-A
- Bureau of Local Government Finance Region IV-A
- Bureau of the Treasury Region IV-A
- Civil Aviation Authority of the Philippines Area Center 3
- Civil Service Commission Region IV
- Climate Change Commission
- Commission on Audit Region IV-A

- Commission on Higher Education Region IV-A
- Commission on Population and Development Region IV-A
- Cooperative Development Authority
 Region IV-A
- Department of Agrarian Reform Region
 IV-A
- Department of Agriculture Region IV-A
- Department of Budget and Management Region IV-A
- Department of Education Region IV-A
- Department of Energy Energy Policy and Planning Bureau
- Department of Environment and Natural Resources – Environment Management Bureau Region IV-A
- Department of Environment and Natural Resources – Mines and Geosciences Bureau Region IV-A
- Department of Environment and Natural Resources Region IV-A
- Department of Environment and Natural Resources – Ecosystems Research and Development Bureau – Urban and Biodiversity Research Development and Extension Center
- Department of Human Settlements and Urban Development Region IV-A
- Department of Information and Communications Technology Region IV-A
- Department of Justice Office for Alternative Dispute Resolution
- Department of Justice Parole and Probation Administration Region IV-A

- Department of Justice Public Attorney's Office Region IV-A
- Department of Labor and Employment Region IV-A
- Department of Public Works and Highways Region IV-A
- Department of Science and Technology -Food and Nutrition Research Institute
- Department of Science and Technology
 Industrial Technology Development Institute
- Department of Science and Technology -Philippine Atmospheric, Geophysical and Astronomical Services Administration
- Department of Science and Technology
 Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
- Department of Science and Technology
 Southern Tagalog Agriculture, Aquatic, and Resources Research Development and Extension Consortium
- Department of Science and Technology -Southern Tagalog Consortium for Industry and Energy Research and Development
- Department of Science and Technology Region IV-A
- Department of Social Welfare and Development Field Office IV-A
- Department of the Interior and Local Government Region IV-A
- Department of Trade and Industry -Competitiveness Bureau
- Department of Trade and Industry Design Center of the Philippines

- Department of Trade and Industry Export Marketing Bureau
- Department of Trade and Industry Trade Promotions Group
- Department of Trade and Industry Laguna Provincial Office
- Department of Trade and Industry Region
- Home Development Mutual Fund Calamba
- Intellectual Property Office of the Philippines
- Land Bank Southern Luzon Lending Group
- Land Transportation Franchising and Regulatory Board Region IV-A
- Land Transportation Office Region IV-A
- Local Water Utilities Administration
- Maritime Industry Authority Region IV
- Metropolitan Waterworks and Sewerage System
- National Commission on Indigenous Peoples Region IV-A
- National Housing Authority Batangas/ Quezon District Office
- National Intelligence Coordinating Agency Region IV-A
- National Irrigation Administration Region IV-A
- National Mapping and Resource Information Authority
- National Nutrition Council Region IV-A
- Office of Civil Defense Region IV-A
- Office of the Presidential Adviser on the Peace, Reconciliation and Unity

- Overseas Workers Welfare Administration Region IV-A
- PhilHealth Region IV-A
- Philippine Board of Investments
- Philippine Commission on Women
- Philippine Crop Insurance Corporation Region IV
- Philippine Drug Enforcement Agency Region IV-A
- Philippine Economic Zone Authority
- Philippine National Police- Police Regional Office IV-A
- Philippine National Railways
- Philippine Ports Authority Port Management Office of Marinduque/ Quezon
- Philippine Statistics Authority Region IV-A
- Presidential Commission for the Urban Poor
- Professional Regulation Commission Region IV-A
- Social Security System Calamba
- Toll Regulatory Board
- Calamba City Justice Zone
- Batangas State University
- Cavite State University
- Laguna State Polytechnic University
- Southern Luzon State University
- University of Rizal System
- University of the Philippines Los Baños
- Manuel S. Enverga University Foundation

- Philippine Science High School Calabarzon
 Region Campus
- Cavite State University Central Student Government
- University of Rizal System Student Federation
- University of the Philippines Los Baños University Student Council
- University Student Council Batangas State University
- Atikha Overseas Workers and Communities Initiative, Inc.
- Ayala Land, Inc.
- Cavite ICT Council, Inc.
- Cavite Metro Multipurpose Cooperative
- Centre for Aquatic Resources Research and Conservation
- Conservation International
- ICCT Colleges Foundation, Inc.
- IT & Business Process Association of the Philippines
- Kabisig ng Kalahi, Inc.
- National Council of Women of the Philippines

- Punta Fuego Village Foundation, Inc.
- PATAMABA-Workers in the Informal Sector Enterprise
- Philippine Agriculture and Resources Research Foundation, Inc.
- Philippine Chamber of Commerce and Industry Quezon
- Philippine Disaster Resilience Foundation
- Philippine Ecozones Association
- Philippine Industrial Estate Association, Inc.
- Philippine Institute of Civil Engineers -Batangas Chapter
- Philippine Metalworkers' Alliance
- Pinalakas na Ugnayan ng Maliliit na Mangingisda ng Luzon, Mindanao at Visayas
- Pollution Control Association of the Philippines, Inc.
- Sinag Kalinga Foundation Inc.
- Sorosoro Ibaba Development Cooperative
- Terra Verde Ecofarm Inc.

To everyone who took part in this shared endeavor, our sincerest gratitude and appreciation.

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PART I Introduction



Overview of the Regional Economy, Development Context and Trends

CHAPTER 1

Overview of the Regional **Economy, Development Context and Trends**

The CALABARZON Region remains to be the industrial hub of the country with its number of economic zones and micro, small, and medium enterprises (MSMEs). It also continues to be an attractive investment destination due to its huge population size, abundance of agricultural produce and raw materials, and strategic location, including its proximity to the National Capital Region (NCR).

Prior to the pandemic, the productive sectors, particularly the industry and services, continued to thrive. The COVID-19 pandemic along with the Taal Volcano eruption, strong typhoons and the African Swine Fever (ASF) hampered the continued growth of the regional economy. While these calamities significantly affected the regional economy, it also opened an opportunity to fast track digitization towards improving efficiency both in the business and government sectors, improve connectivity, and develop the emerging industries.

Regional Situation

Gross Regional Domestic Product

CALABARZON remains the second largest economy in the country next to the NCR. This is despite the contraction experienced in 2020 due to the COVID-19 pandemic and disasters such as the Taal Volcano eruption and Tropical Cyclones Quinta, Rolly, and Ulysses.

The Gross Regional Domestic Product (GRDP) contracted at 10.5 percent in 2020, the second largest contraction among regions. The region also experienced one of the strictest and longest community quarantines due to the nature of its economy, large population, and proximity to NCR.

However, a granular and more strategic approach to COVID-19 response enabled the safe reopening of the regional economy and resumption of economic activities in 2021. The regional economy bounced back at 7.6 percent in 2021 which was the largest growth posted by a region in the country. It exceeded the high end target of 7.2 percent. The GRDP at constant 2018 prices amounted to PHP2.73 trillion. Despite this growth, however, the regional economy was still smaller compared to the prepandemic level.

The industry and services sectors contributed to the fast growth of the GRDP. These sectors grew by 11.2 and 5.9 percent, respectively. The industry sector's growth exceeded the region's target for 2021 while the services sector did not attain the plan target of at least 6.4 percent despite posting positive growth. Growth in the industry and services sectors can be attributed to the resumption of economic activities and the gradual removal of mobility restrictions.

The industry sector, which comprises about half of the region's economy, remained the main driver of regional growth and the top contributor to the industry output at the national level. The manufacturing subsector alone comprised more than 40 percent of the regional economy from 2019 to 2021. All subsectors in the industry and services sectors also posted positive growth in 2021.

On the other hand, the agriculture, forestry, and fishing sector continued to contract in 2021. Increasing the resiliency of agriculture to climate change, pests, and diseases remains a challenge to sustain the sector's production and growth. Nevertheless, the region's agriculture, forestry, and fishing sector contributed 7.4 percent to the national output for the sector, the 5th largest contribution among regions.

Table 1.1 Gross Regional Domestic Product by Industrial Origin (at constant 2018 prices), CALABARZON, 2019-2021

070705		OUTPUT (IN PHP '000)	
SECTOR	2019	2020	2021
Gross Regional Domestic Product	2,831,599,919	2,534,444,265	2,728,307,401
Agriculture, forestry, and fishing	155,144,297	144,737,751	131,090,712
Industry	1,432,359,137	1,251,921,162	1,392,706,005
Mining and Quarrying	5,533,384	4,395,133	5,313,604
Manufacturing	1,207,203,713	1,065,505,682	1,182,203,298
Electricity, steam, water, and waste management	109,071,382	111,119,799	119,140,956
Construction	110,550,658	70,900,549	86,048,147
Services	1,244,096,485	1,137,785,352	1,204,510,684
Wholesale and retail trade, repair of motor vehicles and motorcycles	374,344,240	346,900,301	354,715,920
Transportation and storage	96,334,703	82,797,123	89,803,008
Accommodation and food service activities	49,571,664	34,262,511	40,275,177
Information and communication	98,406,388	105,974,709	120,060,347
Financial and insurance activities	108,679,704	116,976,677	122,513,308
Real estate and ownership of dwellings	219,461,630	180,923,937	183,903,753
Professional and business services	63,132,867	54,983,291	58,054,181
Public administration and defense, compulsory social services	54,757,079	56,445,648	64,329,253
Education	95,227,218	90,736,691	98,272,132
Human health and social work activities	34,421,875	30,840,673	35,188,278
Other services	49,759,118	36,943,791	37,395,327

Source: PSA

Table 1.2 Growth Rate of Gross Regional Domestic Product by Industrial Origin (at constant 2018 prices), **CALABARZON, 2019-2021**

272722	GROWTH RATE (%)			
SECTOR	2019	2020	2021	
Gross Regional Domestic Product	4.6	-10.5	7.6	
Agriculture, forestry, and fishing	1.2	-6.7	-9.4	
Industry	3.6	-12.6	11.2	
Mining and Quarrying	30.2	-20.6	20.9	
Manufacturing	3.1	-11.7	11.0	
Electricity, steam, water, and waste management	5.4	1.9	7.2	
Construction	6.1	-35.9	21.4	
Services	6.2	-8.5	5.9	
Wholesale and retail trade, repair of motor vehicles and motorcycles	7.1	-7.3	2.3	
Transportation and storage	8.0	-14.1	8.5	
Accommodation and food service activities	7.7	-30.9	17.5	
Information and communication	6.1	7.7	13.3	
Financial and insurance activities	10.2	7.6	4.7	
Real estate and ownership of dwellings	2.9	-17.6	1.6	
Professional and business services	2.1	-12.9	5.6	
Public administration and defense, compulsory social services	9.8	3.1	14.0	
Education	0.1	-4.7	8.3	
Human health and social work activities	7.9	-10.4	14.1	
Other services	16.0	-25.8	1.2	

Table 1.3 Percent Distribution of Gross Regional Domestic Product (at constant 2018 prices), **CALABARZON, 2019-2021**

CECTOR	PERCENT DISTRIBUTION			
SECTOR	2019	2020	2021	
Gross Regional Domestic Product	5.5	5.7	4.8	
Agriculture, forestry, and fishing	50.6	49.4	51.0	
Industry	0.2	0.2	0.2	
Mining and Quarrying	42.6	42.0	43.3	
Manufacturing	3.9	4.4	4.4	
Electricity, steam, water, and waste management	3.9	2.8	3.2	
Construction	43.9	44.9	44.1	
Services	13.2	13.7	13.0	
Wholesale and retail trade, repair of motor vehicles and motorcycles	3.4	3.3	3.3	

SECTOR	PERCENT DISTRIBUTION			
SECTOR	2019	2020	2021	
Transportation and storage	1.8	1.4	1.5	
Accommodation and food service activities	3.5	4.2	4.4	
Information and communication	3.8	4.6	4.5	
Financial and insurance activities	7.8	7.1	6.7	
Real estate and ownership of dwellings	2.2	2.2	2.1	
Professional and business services	1.9	2.2	2.4	
Public administration and defense, compulsory social services	3.4	3.6	3.6	
Education	1.2	1.2	1.3	
Human health and social work activities	1.8	1.5	1.4	
Other services	16.0	-25.8	1.2	

Provincial Product Accounts

Among the CALABARZON provinces, Laguna had the largest economy, valued at PHP922 billion in 2021. This was followed by Cavite, with an estimated value of PHP669 billion, and Batangas, with an estimated value of PHP572 billion. The size of Laguna's economy can be attributed to its economic zones and industrial estates (Table 1.4).

Consequently, province's Laguna economy contributed the largest share to the region's GRDP at 33.8 percent, followed by Cavite at 24.5 percent and Batangas at 21.0 percent. Lucena City, the only highly urbanized city (HUC) in the region, had a 1.6 percent share to the GRDP (Table 1.5).

Table 1.4 Gross Provincial Domestic Product (at constant 2018 prices), CALABARZON, 2019-2021

PROVINCE AND HUC	OUTPUT (IN PHP '000)				
FROVINGE AND HOC	2019	2020	2021		
CALABARZON	2,831,599,919	2,534,444,265	2,728,307,401		
Batangas	594,271,828	508,437,972	571,844,986		
Cavite	704,917,569	596,646,876	669,455,971		
Laguna	944,217,867	887,859,482	922,342,345		
Quezon	203,473,772	190,762,049	202,293,892		
Rizal	338,451,110	309,240,881	319,100,865		
Lucena City	46,267,773	41,497,005	43,269,343		

Source: PSA

Table 1.5 Percent Distribution of Gross Regional Domestic Product by Province (at constant 2018 prices), **CALABARZON, 2019-2021**

DDGUWGE AND UVG	PERCENT DISTRIBUTION				
PROVINCE AND HUC	2019	2020	2021		
Batangas	21.0	20.1	21.0		
Cavite	24.9	23.5	24.5		
Laguna	33.3	35.0	33.8		
Quezon	7.2	7.5	7.4		
Rizal	12.0	12.2	11.7		
Lucena City	1.6	1.6	1.6		

Labor and Employment

The labor force participation rate in the region recovered from 61.7 percent in 2020 to 64.6 percent in 2021. This labor force participation rate was higher than the national rate at 62.6 percent. The CALABARZON Region has the largest working age population among regions in the country. This may be a result of inmigration of jobseekers from neighboring regions coupled with younger and older segments of the working population looking for jobs as income sources became limited due to the COVID-19 pandemic.

The region's employment rates fared better in 2021. The employment rate recovered from

88.4 percent in 2020 to 89.4 percent in 2021. However, this level was still below the prepandemic level of 93.9 percent in 2019. Prior to the pandemic, the region maintained a high employment rate (Table 1.6).

The underemployment rate remained high at 17.2 percent in 2021. This can be attributed the retrenchments and closures of establishments and businesses, which may have prompted the affected employees to settle for readily available, low-paying, and low-skill jobs while searching for better jobs.

Table 1.6 Labor and Employment Situation, CALABARZON, 2019-2021

INDICATOR	TARGET			ACTUAL		
INDICATOR	2019	2020	2021	2019	2020	2021
Labor Force Participation Rate				64.1	61.7	64.6
Employment Rate	Increasing	Increasing	Increasing	93.9	88.4	89.4
Unemployment Rate	7-9%	7-9%	7-9%	6.1	11.6	10.6
Underemployment Rate	16.50%	16.00%	15.50%	11.8	17.2	17.2

Source: PSA

Inflation

The region's inflation rate significantly increased in 2021 from 2.6 percent in 2020 to 4.7 percent. Despite this, the region was able to meet its target of maintaining the inflation rate below five percent. Among provinces, Rizal posted the highest inflation rate in 2021 at 5.3 percent, followed by Laguna at 4.8 percent. The gradual re-opening of the economy in 2021 with more

relaxed overall community restrictions induced public mobility and increased consumption, which resulted in increased demand for goods. Likewise, higher demand for goods with limited supply contributed to elevated price levels. Disruptions in the global value chain and the high oil prices also contributed to inflation in the region.

Table 1.7 Average Inflation Rate by Province, CALABARZON, 2019-2021

PROVINCE	2019	2020	2021
CALABARZON	2.3	2.6	4.7
Batangas	2.7	2.0	4.4
Cavite	2.9	3.3	4.3
Laguna	1.5	2.5	4.8
Quezon	1.5	1.5	4.5
Rizal	2.6	2.7	5.3

Source: PSA

Poverty

The region's progress in reducing poverty was also hampered by the pandemic and the disasters experienced in 2020. The poverty incidence among families increased from 5.1 percent in 2018 to 7.2 percent in 2021, while the poverty incidence among the population increased from 7.1 percent to 10.2 percent in 2021. While this level was relatively lower than the national estimate, when translated in magnitude, it remains a concern due to the region's large population. Based on the reported poverty incidence, 1,676,350 individuals in the region are estimated to be below the poverty threshold.

Compared to the 2018 level, this translated into additional 574,320 individuals in the region.

Among provinces, Quezon remained with the highest poverty incidence among families and the population. On the other hand, Batangas province had the lowest poverty incidence in 2021. It is also the only province in the region that was able to reduce its poverty incidence in 2021 despite the losses and damages brought by the Taal Volcano eruption in 2020. Its poverty incidence among families further declined from 8.6 percent in 2018 to 4.3 percent in 2021.

Table 1.8 Poverty Incidence Among Families by Province, CALABARZON, 2015-2021

PROVINCE	2015	2018	2021
CALABARZON	9.2	5.1	7.2
Batangas	17.4	8.6	4.3
Cavite	6.1	3.7	7.1
Laguna	3.8	2.7	6.9
Quezon	18.4	9.3	16.3
Rizal	4.1	3.3	4.3

Table 1.9 Poverty Incidence Among Population by Province, CALABARZON, 2015-2021

PROVINCE	2015	2018	2021
CALABARZON	12.5	7.1	10.2
Batangas	22.3	11.4	6.3
Cavite	9.0	5.3	10.1
Laguna	5.1	3.9	9.5
Quezon	24.2	13.5	21.6
Rizal	6.1	4.5	6.9

Source: PSA

Trends

Health and Social

The COVID-19 pandemic has had a profound impact on the health and education sectors, impeding progress and exposing the sectors' gaps. The inadequacy of the region's healthcare facilities in handling the surge of patients afflicted with COVID-19, as well as other illnesses, became apparent. Furthermore, the pandemic revealed the insufficiency of health personnel in the region to meet the growing demand for medical care.

The pandemic's impact on the education sector has been substantial, with the suspension of face-to-face classes resulting in significant learning losses for students at all levels of education. While the sector made efforts to

adjust to the situation, the shift to online platforms for lectures and classes may not be sufficient to satisfy the quality of education delivered in the traditional mode.

CALABARZON continues to be a top destination for domestic migrants and the top sending region of Overseas Filipinos (OFs). To be able to absorb the supply of the labor force and return to the pre-pandemic level of employment rate, there is a need to create more jobs and increase the competitiveness of graduates. Moreover, the health and education sector's ability to adapt to health emergencies, including local outbreaks of diseases, would be critical to mitigating socioeconomic scarring.

The region's attainment of economic benefits from the demographic dividend hinges on its ability to continually develop human capital by cultivating the necessary skills for employment. The 2020 Census of Population and Housing revealed that a significant portion of the region's population falls under the working-age demographic.

Economic

The effects of the global supply-chain constraints, geopolitical tensions, elevated global prices, and slowdown in major advance economies like the United States of America and countries in Europe to the regional economy showed how vulnerable it is to global uncertainties. Support to domestic market production and moving up the value chain will be essential to reduce the effects of global uncertainties on the regional economy, particularly the industry sector. Developing local suppliers to provide the necessary raw materials for export-oriented industries will be pursued.

On the other hand, the recently enacted laws such as Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act, Foreign Investment Act, Amended Public Service Act, and Amended Retail Trade Liberalization Act can support the region's strategies to further attract foreign direct investments. In addition, the potential ratification of the Regional Comprehensive Economic Partnership Agreement (RCEP) will enhance the region's market access in Asia-Pacific nations.

Political

Executive Order No. 138, issued in 2021, allows for the complete devolution of specific executive branch functions to local governments, creating an opportunity to localize programs and projects that will contribute significantly to local development and economic growth. However, it is essential to ensure that local government units (LGUs) possess the capacity and capability to implement the identified programs and projects

associated with the devolved functions, services, and facilities to guarantee effective and efficient delivery. Appropriate interventions should be promptly and effectively provided to strengthen the LGUs. Additionally, an effective monitoring mechanism is crucial to ensure that there are no gaps in the delivery of programs and services to the public.

Environmental

The increasing losses and damages from disasters reflect the need to build resilience in the region. Aside from disasters, the region is also vulnerable to climate change, significantly affecting the production sectors, especially agriculture, forestry, and fishery. Proper

interventions to mitigate and reduce the risks of climate change are needed to enhance the resilience of the production sectors. Identification and development of nature-based industries and enterprises that can support the green and blue economy will be pursued to create opportunities for green jobs. The private sector's investments in green development will support the region's objective of transitioning to a low-carbon economy.

Technological and Regulatory

The COVID-19 pandemic has expedited the digitalization of operations and processes in both the private and government sectors. Implementing digital processes and procedures can improve the government's efficiency, benefitting the private sector in the process. Hence, the government needs to improve further and provide reliable infrastructure to support the adoption of these digital systems.

Moreover, the Fourth Industrial Revolution (FiRE) has ushered in emerging industries and new job opportunities that require a distinct set of skills. To capitalize on these opportunities, the region must ensure that graduates possess solid foundational competencies that make them highly trainable and adaptable to address the evolving skills required for employment.



CHAPTER 2

Regional Spatial Development Framework

Physical characteristics of the region

Administrative Boundary

CALABARZON is bounded on the north by Central Luzon, on the east by the Philippine Sea, on the south and southeast by MIMAROPA and Bicol Regions, and on the west by the NCR and Manila Bay. It has a total land area of 16,228.61 square kilometers (sq. km)1 which accounts for around 5.4 percent of the country's total land area. Among its five provinces, Quezon has the largest land area with 8,706 sq km, while Cavite has the smallest at 1,287 sq km (Table 2.1).

The region comprises the provinces of Cavite, Laguna, Batangas, Rizal, Quezon, and the highly urbanized city of Lucena. It has 31 Congressional Districts², 20 component cities, 121 municipalities, and 4,019 barangays as shown in Table 2.2. The cities include Bacoor, Cavite, Dasmariñas, General Trias, Imus, Tagaytay, and Trece Martires in Cavite; Biñan, Cabuyao, Calamba, San Pablo, San Pedro, and Santa Rosa in Laguna; Batangas, Calaca, Lipa, Tanauan, and Santo Tomas in Batangas; Antipolo in Rizal; and Tayabas in Quezon. The City of Calamba serves as the Regional Center per Executive Order No. 246, series of 2003.

Table 2.1 Land Area per Province (in sq km), CALABARZON

PROVINCE	LAND AREA (SQ KM)	% TO TOTAL
Cavite	1,287.55	7.93
Laguna	1,759.73	10.84
Batangas 3,165.81		19.51
Rizal	1,308.92	8.07
Quezon	8,706.60	53.65
CALABARZON	16,228.61	100

Source: CALABARZON Regional Physical Framework Plan 2017 to 2046

Table 2.2 Political Subdivision, CALABARZON, 2022

PROVINCE	CAPITAL	CONGRESSIONAL DISTRICTS	HUC	CITIES	MUNICIPALITIES	BARANGAYS
Cavite	Imus City	8	-	7	16	829
Laguna	Santa Cruz	7	-	6	24	681
Batangas	Batangas City	6	-	5	29	1,078
Rizal	Antipolo City	6	-	1	13	189
Quezon	Lucena City	4	1	1	39	1,242
CALABARZON		31	1	20	121	4,019

Population Size and Distribution

Based on the 2020 Census of Population and Housing, CALABARZON has the largest population among regions with more than 16 million people which accounts for about 14.85 percent of the Philippine population in 2020. Cavite has the largest population among provinces, with 4.3 million people from almost 1.1 million households, as shown in Table 2.3. Quezon posted the smallest population, with 1.9 million people from 0.48 million households. Meanwhile, the City of Lucena, the only highly urbanized city in the region, posted a population of 278,924 people from almost 0.07 million households.

In of population terms density, CALABARZON has 977 persons per sq km. Among provinces, Cavite is the most densely populated at 2,847 persons per sq km, while Quezon is the least densely populated at 223 persons per sq km. Meanwhile, the City of Lucena is densely populated at 3,477 persons per sq km. Figure 2.3 shows the population density in the region from 2010 to 2020, showing the increasing population density in the regional and subregional centers over the years.

Table 2.3 Population, Population Density, Number of Households, CALABARZON, 2020

PROVINCE	TOTAL POPULATION	NUMBER OF HOUSEHOLDS	POPULATION DENSITY (persons per sq km)
Cavite	4,344,829	1,096,120	2,847
Laguna	3,382,193	915,398	1,754
Batangas	2,908,494	716,192	934
Rizal	3,330,143	784,402	2,816
Quezon	1,950,459	483,703	223
Lucena City	278,924	66,905	3,477
CALABARZON	16,195,042	4,062,720	977

Source: PSA

CALABARZON's population remained nearly proportional, from 50.01 percent male and 49.99 percent female in 2015 to 50.27 percent male and 49.73 percent female in 2020. Figure 2.2 shows the region's population distribution by age and sex in 2015 and 2020 based on the Philippine Statistics Authority's household population data. While the region's population

remained predominantly young, as shown in both population pyramids, the working population (ages 15 to 59) slightly increased from 62.9 percent in 2015 to 63.04 percent in 2020. Given that most of the region's spopulation is of working age, the region remains in an optimal position to reach the demographic sweet spot.

Figure 2.1 Administrative Boundary, CALABARZON

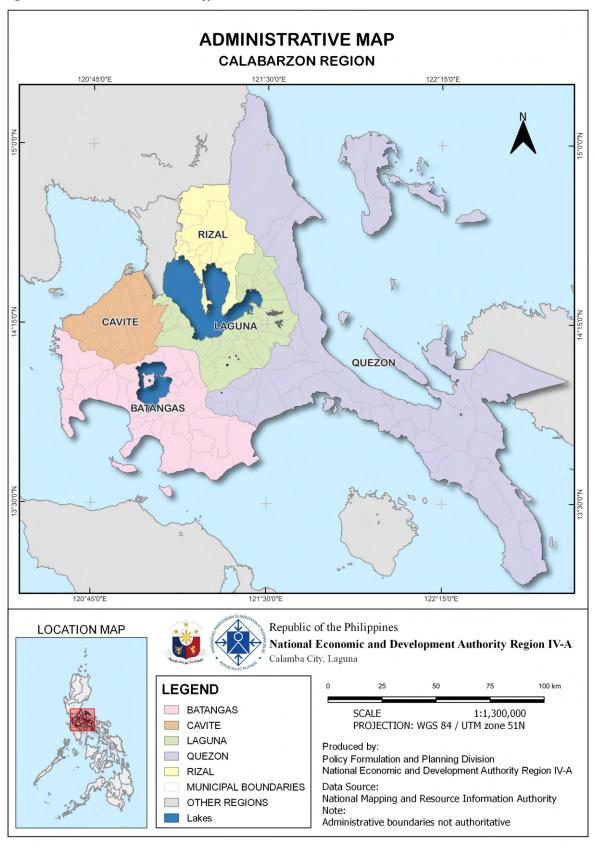
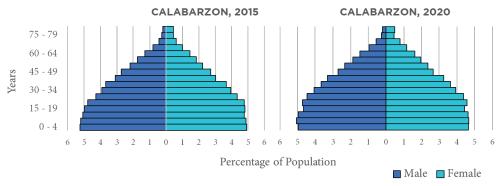


Figure 2.2 Population Pyramid, CALABARZON, 2015 and 2020



Land Use/Cover Patterns

Land cover data from the National Mapping Resource Information Authority show that (NAMRIA) most of CALABARZON's land area in 2020 was devoted to agricultural production for perennial and annual crops (Table 2.4 and Figure 2.4) at 43 percent and 12.3 percent, respectively. In addition, more than 15 percent of the region's land cover is covered with closed and open canopy forests at 6.7 percent and 8.4 percent, respectively, and brush or shrubland at 14.4 percent. Built-up areas comprise almost nine percent of the region's total land area.

In terms of land cover change, perennial croplands decreased by 2.2 percent or more than 34,000 hectares (ha) from 2015 to 2020. A notable decrease in the land area was also observed in annual cropland and open canopy forest at 0.5 percent (7,595 ha) and 0.4 percent (5,978 ha), respectively. On the other hand, land areas for built-up and shrublands increased by one percent at 14,788 ha and 15,073 ha from 2015 to 2020, respectively. The land cover increase was also observed in

closed canopy forests (0.4 percent), grasslands (0.4 percent), barren lands (0.3 percent), and mangrove forests (0.1 percent), as shown in Table 2.4.

The 2015 to 2020 Land Cover Change Matrix (Table 2.5) shows that the decrease in perennial cropland was primarily due to its conversion to annual cropland, shrubland, built-up areas, and grassland. On the other hand, the increase in built-up area is due to conversions from perennial and annual croplands.

In terms of land classification, 64.6 percent of the total land area of CALABARZON is alienable and disposable (A&D) land, while 35.4 percent is forestland. As Quezon has the biggest land area among the provinces, it also has the largest A&D land, with 45.10 percent of the region's A&D and 69 percent of the region's forestland, as shown in Table 2.6. A&D lands can be used for residential, agricultural, commercial, industrial, institutional, and other purposes.

Environment and Natural Resources

Land resources

According to data from the Department of Environment and Natural Resources (DENR) Region IV-A, the region has 167,698.86 ha of production forest, majority of which is in the Province of Quezon at 136,350.29 ha. The production forest areas are the sources of various timber and non-timber forest products. In addition, the region has 245,519.29 ha of protection forest spread

Figure 2.3 Population Density, CALABARZON, 2010-2020

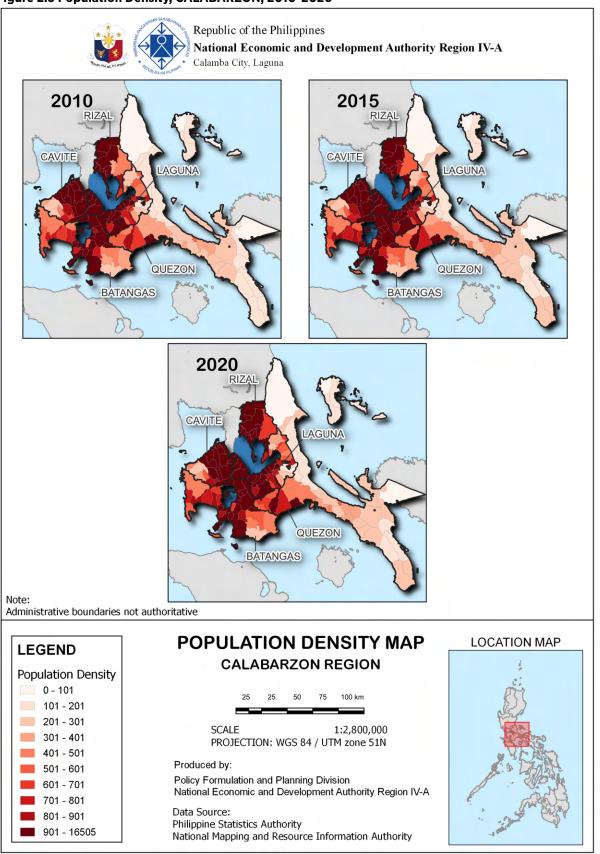


Table 2.4 Land Cover Area, CALABARZON, 2015 and 2020

LAND COVER	2015 LAND CO	VER AREA (HA)	2020 LAND CO	VER AREA (HA)	DIFFERENCE	% CHANGE
Annual Crop	199,180.81	12.8%	191,585.31	12.3%	-7,595.50	-0.5%
Brush/Shrubs	208,828.63	13.4%	223,901.41	14.4%	15,072.78	1.0%
Built-up	123,308.46	7.9%	138,096.83	8.9%	14,788.38	1.0%
Closed Forest	98,854.46	6.4%	104,832.37	6.7%	5,977.91	0.4%
Fishpond	9,934.71	0.6%	9,941.96	0.6%	7.25	0.0%
Grassland	42,696.81	2.7%	48,439.68	3.1%	5,742.87	0.4%
Inland Water	11,566.02	0.7%	12,093.37	0.8%	527.36	0.0%
Mangrove Forest	18,367.69	1.2%	19,730.45	1.3%	1,362.76	0.1%
Marshland/Swamp	1.50	0.0%	13.52	0.0%	12.02	0.0%
Open Forest	137,367.89	8.8%	131,319.85	8.4%	-6,048.04	-0.4%
Open/Barren	1,756.17	0.1%	6,105.36	0.4%	4,349.19	0.3%
Perennial Crop	702,798.27	45.2%	668,601.29	43.0%	-34,196.98	-2.2%
TOTAL	1,554,661.41	100%	1,554,661.41	100%		

Source: GIS-generated from National Mapping and Resource Information Authority's Land Cover shapefiles

Table 2.5 Land Cover Change Matrix (in hectares), CALABARZON, 2015-2020

LAND COVER CLASS	OPENING STOCK (2015)	ANNUAL CROP	SHRUBS	BUILT- UP	CLOSED FOREST	FISH POND	GRASS LAND	INLAND WATER	MANGROVE FOREST	SWAMP	OPEN FOREST	OPEN/ BARREN	PERENNIAL CROP	CLOSING STOCK (2020)
Annual Crop	199,180.81	153,475.38	5,712.90	13,285.59	6.69	143.50	3,924.53	473.40	84.24	6.35	80.09	301.29	21,686.84	191,585.31
Brush/ Shrubs	208,828.63	2,320.94	168,189.22	3,247.82	99.33	14.61	8,950.70	706.30	109.94	1.51	7,634.19	1,191.14	16,362.92	223,901.41
Built-up	123,308.46	5,980.49	4,240.08	101,298.61	1.27	106.95	2,015.96	435.89	36.84	5.28	47.72	253.98	8,885.39	138,096.83
Closed Forest	98,854.46	19.32	290.97	0.66	88,891.82		112.34	216.92			9,230.86	48.32	43.26	104,832.37
Fishpond	9,934.71	135.12	38.08	168.74		8,546.98	54.63	82.74	520.07			6.02	382.34	9,941.96
Grassland	42,696.81	2,337.18	7,091.62	2,746.10	12.61	9.73	24,235.56	157.50	9.96		126.69	1,688.61	4,281.24	48,439.68
Inland Water	11,566.02	601.15	595.24	271.40	191.48	49.27	301.68	7,701.55	120.30	0.38	401.31	576.85	755.41	12,093.37
Mangrove Forest	18,367.69	40.10	59.22	42.58		130.05	11.52	113.39	17,637.65		0.28	4.95	327.95	19,730.45
Swamp	1.50	0.08		0.75				0.67						13.52
Open Forest	137,367.89	192.10	5,684.74	119.78	15,625.43		685.00	290.35	0.51		111,720.86	100.48	2,948.65	131,319.85
Open/Barren	1,756.17	29.88	139.86	150.83		15.15	148.55	53.15	31.88		4.61	1,088.72	93.55	6,105.36
Perennial Crop	702,798.27	26,453.59	31,859.49	16,763.96	3.73	925.72	7,999.21	1,861.51	1,179.06		2,073.25	845.01	612,833.75	668,601.29

Source: GIS-generated from National Mapping and Resource Information Authority's Land Cover shapefiles Note: Areas that remained unchanged from 2015 to 2020 are shaded

Figure 2.4 Land Cover, CALABARZON, 2015 and 2020

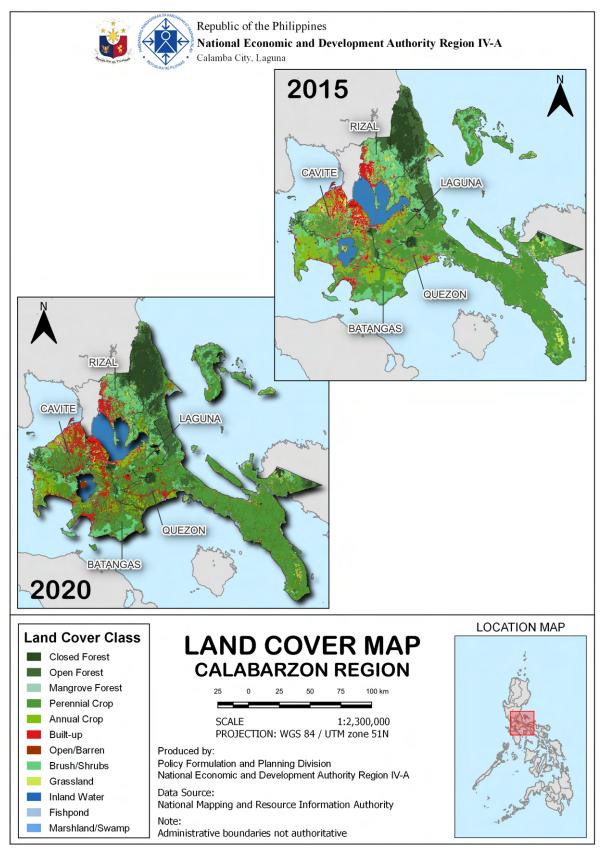


Table 2.6 Land Classification³ Based on 2006 Land Classification Data, CALABARZON

OATEOODY		TOTAL (UA)				
CATEGORY	CAVITE	LAGUNA	BATANGAS	RIZAL	QUEZON	TOTAL (HA)
Certified A and D	107,733	134,720	271,167	63,889	474,439	1,051,948
Unclassified Forest Land	4,147	4,147 2,275 7,723		-	6,887	21,032
Classified Forestland	16,875	38,978	37,691	67,003	389,334	549,881
Established Forest Reserves	-	3,637	-	22,582	72,606	98,825
Established Timberland	14,076	32,313	28,784	43,857	305,721	424,751
National Parks and GRBS/WA	-	2,754	8,537	-	9,541	20,832
Military and Naval Reservations	2,799	274	51	564	-	3,688
Civil Reserve	-	-	-	-	28	28
Fishponds	-	-	319	-	1,438	1,757
Total Land Area	128,755	175,973	316,581	130,892	870,660	1,622,861

Source: DENR Region IV-A 2021 ENR Statistics

across the five provinces, as shown in Table 2.7 and Figure 2.5.

As of 2021, the region has nine legislated protected areas (PAs) and 13 PAs as part of the initial components of the National Integrated Protected Areas System as shown in Figure 2.6. Of the total PAs in CALABARZON, 13 have established Protected Area Management Boards.

The region also has 13 proclaimed (Figure 2.7) watershed forest reserves as of 2021, two of which are in Laguna, with a total land area of 11,154.92 ha, and 11 in Quezon, with a total area of 31,227.89 ha. Moreover, there are 24 major watersheds in the region. These watersheds were already profiled/characterized and have undergone

vulnerability assessment, while 21 have approved development plans.

Water resources

CALABARZON has 19 inland wetlands consisting of 16 lakes used for various economic activities and three water storage areas, with a total area of 116,320.22 ha. Among the most prominent lakes in the region are Laguna Lake, the largest lake in the country, Taal Lake, and the seven lakes in San Pablo City in Laguna (Figure 2.8). Moreover, 354 river systems outflow to the various waterbodies surrounding the region, as also shown in Figure 2.8. Of the total river systems in the region, 178 are in Quezon, 87 are in Batangas, 42 are in Rizal, 36 are in Laguna, and 11 are in Cavite.

Table 2.7 Production and Protection Forest, CALABARZON

PROVINCE	PRODUCTION (HA)	PROTECTION (HA)		
Cavite	3,416.2	6,628.59		
Laguna	7,871.85	16,384.95		
Batangas	16,123.12	15,005.23		
Rizal	3,937.4	49,530.83		
Quezon	136,350.29	157,969.69		
TOTAL	167,698.86	245,519.29		

Source: DENR Region IV-A 2021 ENR Statistics

Figure 2.5 Production and Protection Forest, CALABARZON

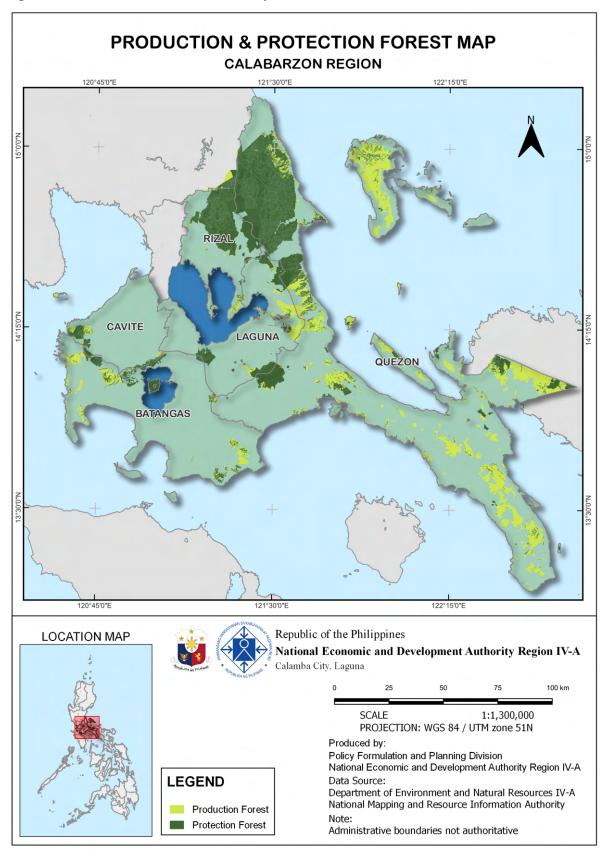


Figure 2.6 Protected Areas, CALABARZON

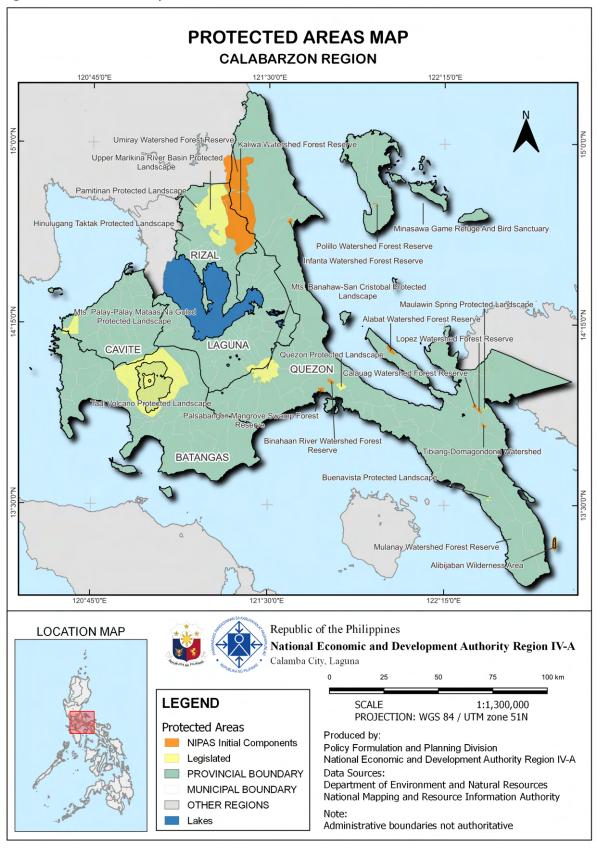
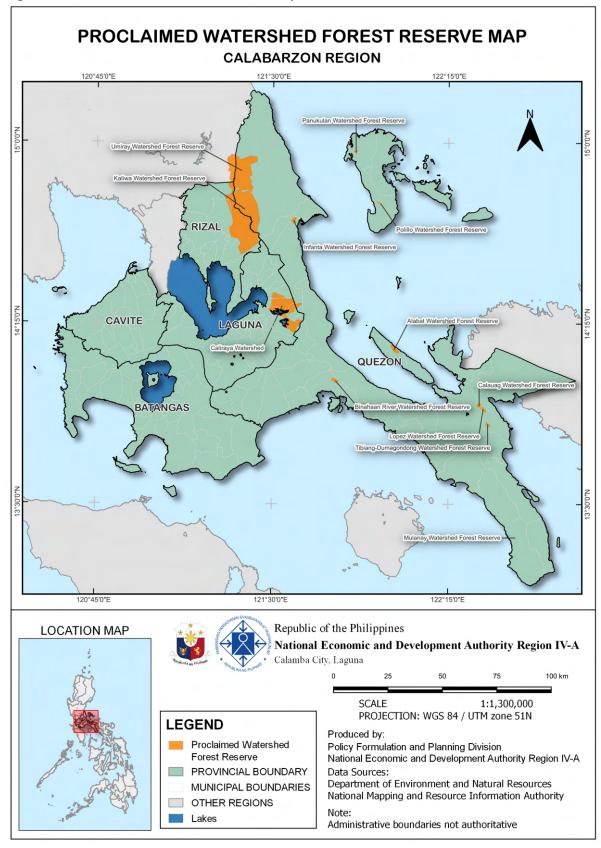


Figure 2.7 Proclaimed Watershed Forest Reserve, CALABARZON



The region also has several marine sanctuaries and local marine protected areas in Batangas City, Balayan, Bauan, Calaca City, Lemery, Lian, Lobo, Mabini, Nasugbu, San Juan, San Luis, and Tingloy in the Province of Batangas; Maragondon, Naic, Rosario, Tanza, Ternate, and Corregidor Island in the Province of Cavite; and Agdangan, Alabat, Atimonan, Buenavista, Burdeos, Calauag, Catanauan, General Luna, General Nakar, Guinayangan, Gumaca, Infanta, Jomalig, Lopez, Lucena City, Macalelon, Mauban, Mulanay, Padre Burgos, Pagbilao, Panukulan, Patnanungan, Perez, Pitogo, Plaridel, Polilio, Quezon, Real, San Andres, San Francisco, San Narciso, Sariaya, Tagkawayan, and Unisan in Quezon Province.

Mineral resources

CALABARZON has a variety of mineral resources, both metallic and non-metallic. Among the metallic minerals are gold, copper, chromite, iron, manganese, and nickel. Non-metallic minerals are andesite, basalt, clay, gravel and sand, marble, limestone, clay, feldspar, silica sand, and rock aggregates.

Batangas has the highest potential for copper ore, gold, lead, and clay, and is the only province with barite and gypsum. Quezon Province is the second highest in copper ore, gold, and limestone availability. Rizal has the highest potential in iron, limestone, shale or silica, and concrete aggregate or sand gravel. On the other hand, mineral deposits with economic potential within Cavite are considered unlikely. The area's only mineral deposits of commercial value are volcanic rocks such as basalt and andesite.

In 2021, mineral production in the region amounted to around PHP2.89 billion, of which around PHP2.52 billion came from aggregates, basalt, filling materials, limestone, marbelized limestone boulders, silica, volcanic tuff, and pozzolan in Rizal Province.

Hazards

Significant areas in the region are susceptible to various geologic (Figure 2.9) and hydrologic hazards (Figure 2.10). Among the geologic hazards are earthquakes, earthquake-induced landslides, tsunamis, faulting, and volcanic eruptions.

The region is near or on the active earthquake generators such as the Philippine Trench, East Luzon Trench, Manila Trench, Lubang-Verde Island Fault, Lipa Faults, and the Valley Fault System consisting of the East Valley Fault and the West Valley Fault (Figure 2.9). The East Valley Fault is about 10 km long, which traverses the municipalities of Rodriguez and San Mateo in Rizal Province and can generate a 6.2 magnitude earthquake, with intensity VIII in the epicenter. On the other hand, the West Valley Fault is approximately 100 km long and transects portions of NCR, Region III, CALABARZON (Rodriguez, San Pedro City, Biñan City, Sta. Rosa City, Cabuyao City, Calamba City, Carmona, General Mariano Alvarez, and Silang). It can generate a 7.2 magnitude earthquake with intensity VIII in Metro Manila and nearby provinces.

Landslides may also occur due to earthquakes. Earthquake-induced, landslide-prone areas include the Carmona-Silang area along the trace of the West Valley Fault, the Tagaytay Ridge, and nearby steeply sloping areas. Deeply incised rivers, common in Cavite, are also prone to this hazard. Steep-sloping areas in Calamba, Los Baños, San Pablo, Paete, Kalayaan, Mabitac, Siniloan, and Famy are identified as landslide-prone areas in Laguna. The steep topography of San Mateo, Antipolo, Morong, Tanay, Teresa, Pililla, and Baras are the areas in Rizal prone to this hazard. In Quezon province, the municipalities in Bondoc Peninsula, Calauag, Lopez, and Atimonan are the areas prone to landslide (Figure 2.9).

Portions of the region are also susceptible to tsunamis, specifically in the coastal areas of

Figure 2.8 Lakes, CALABARZON

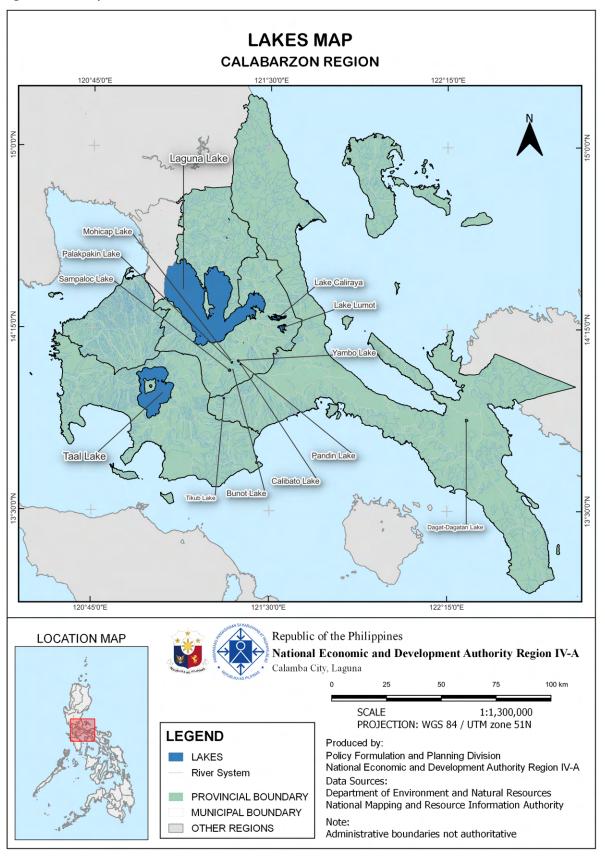


Figure 2.9 Geologic Hazards, CALABARZON

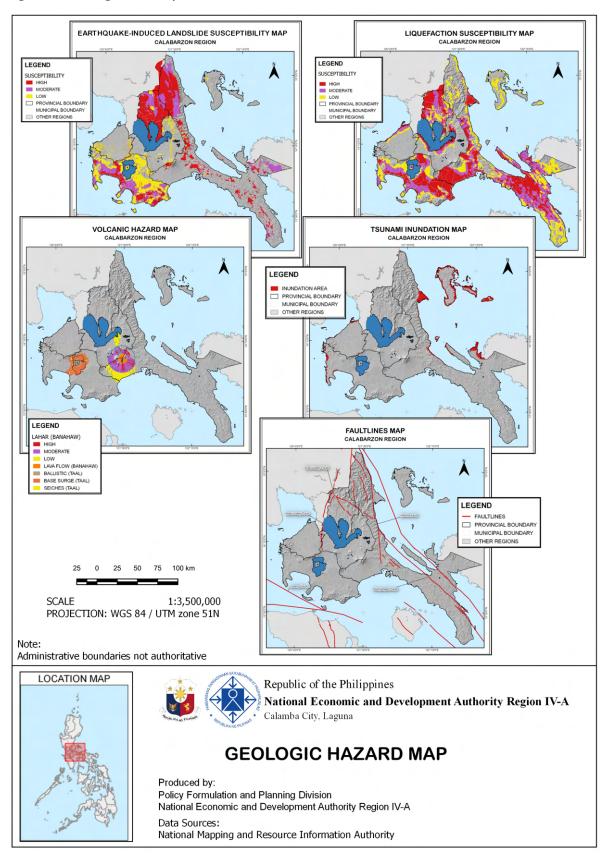
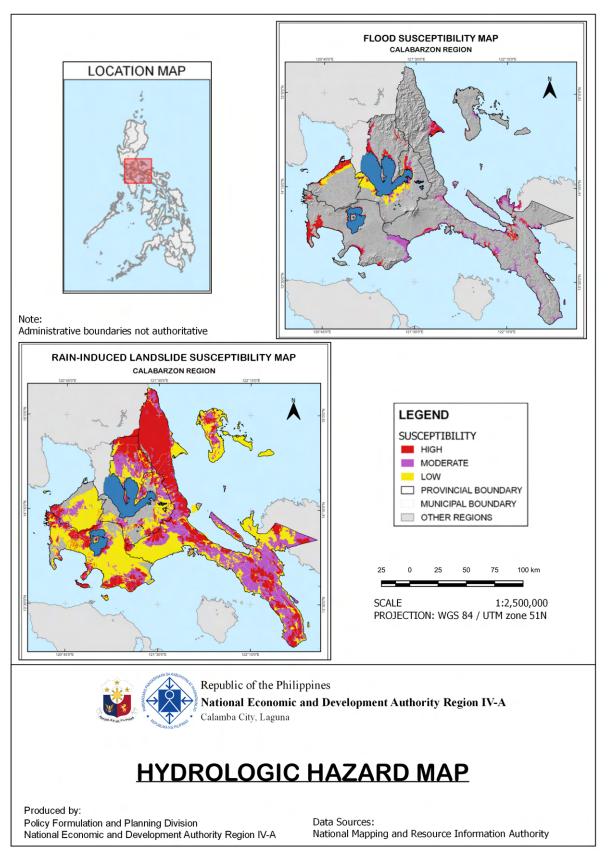


Figure 2.10 Hydrologic Hazards, CALABARZON



Cavite, Batangas, and Quezon (Figure 2.9). Lake tsunami also occurs in Taal Lake during explosive eruptions of Taal Volcano that create large waves on the lake water induced by the sudden displacement of materials caused by explosions, blasts, pyroclastic flows, landslides, and earthquakes at or near the lakeshore.

Another geologic hazard, liquefaction, may affect the coastal areas of Cavite, low-lying areas in Laguna, areas surrounding the Laguna Lake, low-lying areas near Balayan Bay, Batangas Bay, and Lobo in Batangas, low-lying areas of Angono, San Mateo, and Rodriguez in Rizal, and northeastern Polillo and Lucena-Tayabas, in Quezon, as shown in Figure 2.9.

The region has two active volcanoes: Taal Volcano and Mount Banahaw. Taal Volcano in Batangas is one of 15 "Decade Volcanoes" that the volcanology community has identified as presenting large potential hazards to population centers. Mount Banahaw, which lies between the provinces of Laguna and Quezon, is a complex stratovolcano. The volcano last erupted in 1909. The hazards posed by volcanoes are mostly associated with eruptions. These include lava flows, base surges, ash or tephra falls, tsunamis, seiche, and fissuring (Figure 2.9).

CALABARZON is also susceptible to hydrologic hazards like flooding near rivers and coastal areas and rain-induced landslides, especially on steep slopes (Figure 2.10).

Transport Network

CALABARZON is accessible through land and sea transportation systems. Roads, bridges, and ports are important links for trade, tourism, service activities, and the transport of commodities within and outside the region.

The region is dominated by a road-based transport system, particularly major national roads connecting primary and secondary urban centers. These roads link the CALABARZON provinces to other regions in the North and South.

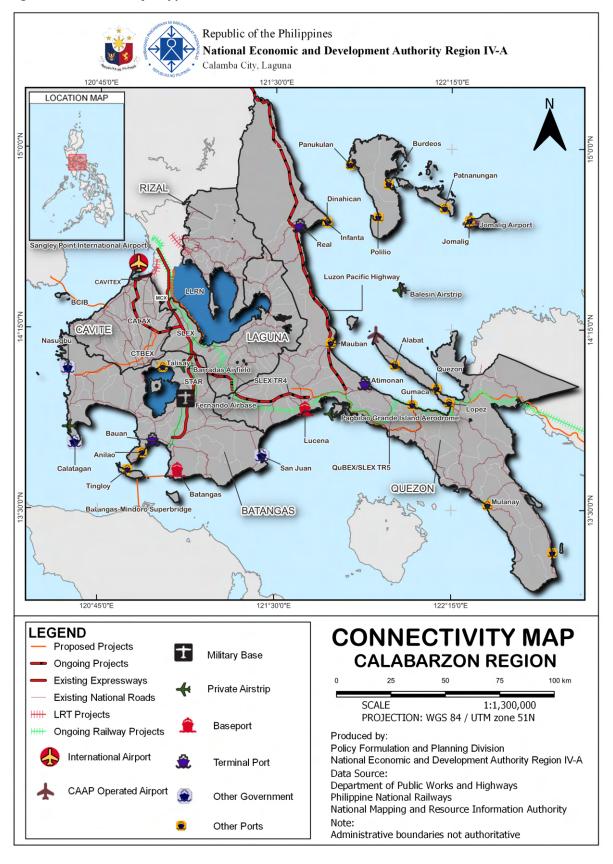
Figure 2.11 shows the existing national roads and expressways, ongoing major road and railway projects, and proposed connectivity projects.

Seaports link the region's island municipalities and other regions to CALABARZON. Water transport (Figure 2.11) facilitates the exchange of goods and services and enables tourism and other economic activities among different regions.

CALABARZON has two major ports: Batangas Port and the Lucena Port. The Batangas Port is a vital point for shipments and passengers from the nearby islands of Mindoro and Romblon in the MIMAROPA Region and Caticlan in Western Visayas Region. It operates as a domestic passenger sea travel port and an international container terminal port. On the other hand, the Lucena Port ships passengers and cargo to the provinces of Marinduque and Romblon in the MIMAROPA Region and Masbate Province in the Bicol Region.

Air transport (Figure 2.11) is also available through the Civil Aviation Authority-Operated Airports and private airstrips in the Provinces of Batangas and Quezon. Meanwhile, the development of the Sangley Point International Airport (SPIA) continues after the Province of Cavite signed a Joint Venture Development Agreement with the SPIA Development Consortium members composed of Cavitex Holdings Inc., House of Investments Inc., Samsung C & T Corp., MacroAsia Corp., Munich Airport International GmbH, and Ove Arup & Partners Hong Kong Limited on February 6, 2023.

Figure 2.11 Connectivity Map, CALABARZON



Production Areas

The production areas in CALABARZON include those identified in the Strategic Agriculture and Fisheries Development Zones (SAFDZ) (Figure 2.12); production forests; mining and quarrying areas; industrial centers and economic zones or ecozones; and tourism areas. These production areas are the main drivers of economic activities in the region.

Based on the latest data from the Department of Agriculture-Bureau of Soils and Water Management, there are 574,357.51 ha of Strategic Crop Sub-Development Zone, 15,141.63 ha of Strategic Livestock Sub-Development Zone, and 14,206.89 ha of Strategic Fishery Sub-Development Zone. In addition, there is an estimated 58,446.97 ha

of remaining Network of Protected Areas for Agriculture and Agro-Industrial Development in the region as of 2022.

In terms of industry, the region is home to 58 ecozones (see Table 2.8) spread mostly across the Provinces of Batangas, Cavite, and Laguna. In 2021, there were PHP107,152.08 million worth of approved investments in the region based on data from the Philippine Economic Zone Authority and the Board of Investments.

Figure 2.13 shows CALABARZON's existing production land use, including ecotourism sites, economic zones, secondary forests, agroforestry, SAFDZs, and mining areas.

Table 2.8 Number of Ecozones by Province, CALABARZON, 2021

ТҮРЕ	CAVITE	LAGUNA	BATANGAS	RIZAL	QUEZON	TOTAL
Operating Ecozones	18	19	15	5	1	58
Manufacturing	10	14	10	0	0	34
IT Parks / Centers	6	5	3	4	0	18
Agro-Industrial	1	0	0	0	1	2
Tourism	0	0	1	1	0	2
Medical Tourism Parks/Centers	0	0	1	0	0	1
Regular Economic Zone	1	0	0	0	0	1

Source: CALABARZON Regional Development Report 2021

Development challenges

CALABARZON's geographic location is one of the main factors for its higher economic output than other regions. However, this advantage also gave rise to some challenges, namely:

High population and uncontrolled growth of urban areas

CALABARZON is the most populous region in the country, with 14.41 million people and the highest average Annual Population Growth Rate (APGR) of 2.58 percent, from 2010 to 2015. Cavite has the fastest population growth at 3.37 percent, followed by Rizal with 2.88 percent. Quezon has the lowest population growth at 1.23 percent.

Among the cities and municipalities, Antipolo City has the largest population with 776,386 people, followed by Dasmariñas City with 659,019 people, and Bacoor City with 600,609 people.

While the region's population growth has slowed from 3.07 percent from 2000-2010 to 2.58 percent between 2010 and 2015, the population continues to grow fast due to the

Figure 2.12 Strategic Agriculture and Fisheries Development Zones, CALABARZON

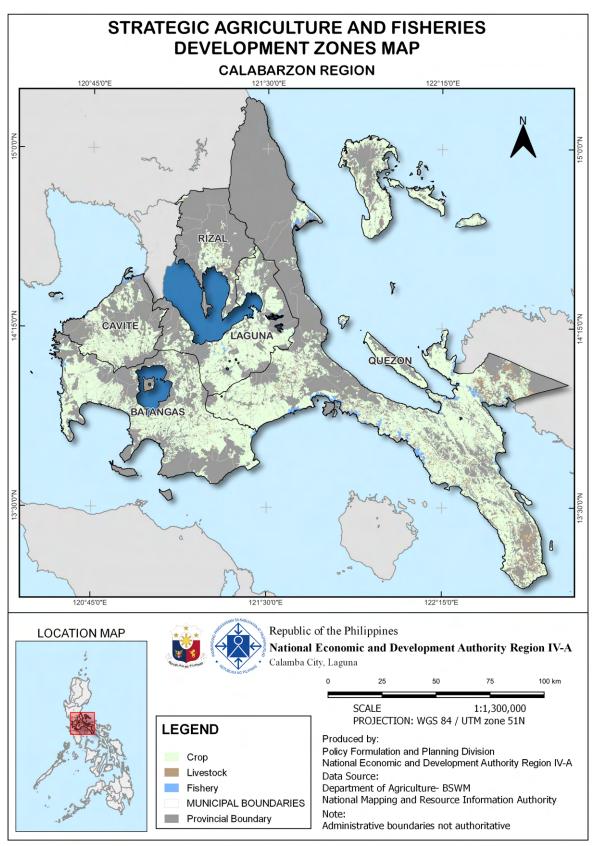
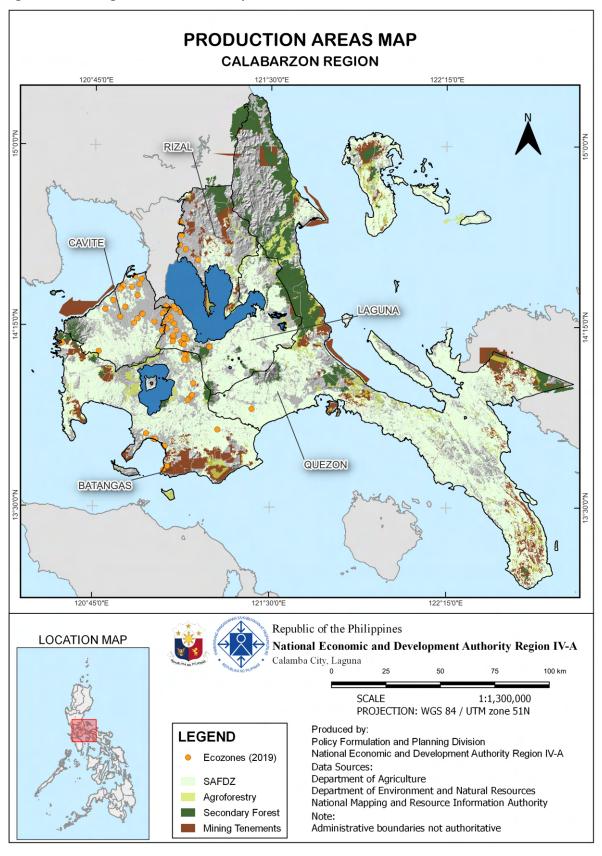


Figure 2.13 Existing Production Land Use, CALABARZON



reduction of premature deaths, longer life high fertility population span, rate, momentum, and in-migration.

The majority, or 66.4 percent of the population, lives in urban areas. In addition, 60 percent of the population resides in regional and sub-regional centers consisting of 12 municipalities and 15 cities. These are grouped so-called localities into "catchment areas or clusters."

The distribution of population is the result of in-migration from other regions and migration of residents from rural to urban areas. The continuous movement of people to urban areas near Metro Manila has resulted in urban problems such as congestion, heavy traffic and transport problems, deterioration of the environment, the spread of diseases, and inadequate or poor quality of basic social services. The influx of people often outpaced the infrastructure and level of basic services in receiving areas. On the other hand, sendingoff areas with decreasing populations also suffer and are at risk of not being prioritized in the grant of social and infrastructure development programs.

Rapid urbanization has generated several settlement issues such as wide disparity in the quality of housing structures, congestion, flooding, inefficient solid waste disposal, environmental degradation and pollution, the spread of diseases, higher crime rates, and inadequate basic and social services, among others.

Unplanned settlements and areas for urban expansion

The urban challenges have not been fully addressed primarily due to the weak implementation of physical plans by some LGUs. Many LGUs were unprepared for the continuous influx of people demanding higher services and land for development.

As of 2022, only 63 out of the 142 municipalities and cities, or about 44

percent, have approved Comprehensive Land Use Plans (CLUPs), while around 74 percent have approved Comprehensive Development Plans. While all five provinces have approved Provincial Development and Physical Framework Plans, there is still a need to strengthen the province's oversight and coordination with LGUs in their jurisdiction to steer development toward the province's desired vision. Before CLUPs are approved, zoning techniques and ordinances of urbanized and urbanizing LGUs must be reviewed to ensure that these include flexible and innovative zoning regulations that can adapt to rapid development.

With the fast-growing population, the increasing demand for affordable accessible housing, especially for low-income families, resulted in an increase in informal settler families (ISFs) and ISF settlements in the region. In 2011, of the estimated 1.5 million ISFs nationwide, 15 percent were in CALABARZON. These ISF settlements are usually in urban or urbanizing areas with better economic opportunities. Many ISFs reside in high-risk and privately owned land areas, making them more vulnerable to calamities and eviction.

The population influx in unplanned and poorly developed settlements has made it even more difficult for the government to provide basic services and infrastructures. These settlements are characterized by poor or no sewerage and septage systems and underdeveloped flood control and drainage systems, resulting in soil and groundwater contamination due to indiscriminate domestic sewage disposal and flooding, respectively. The outcomes of unplanned communities often include the lack of or limited open areas for recreation, poor access to transportation and utilities, and inadequate social and basic services.

Inadequate infrastructure and utilities support facilities

While CALABARZON has the second highest road density nationwide at 15.34 km per sq km, road density in highly urbanized areas in Cavite, Rizal, and Laguna must be increased to cater to the growing number of vehicles and people. Peak-hour traffic congestion in the town and city centers has also worsened. As of 2016, around 11.78 percent of national roads are in bad condition and need rehabilitation.

The numerous road widening projects along primary roads were designed to address the increasing volume of vehicles. Still, road obstructions such as electrical posts, telecommunication utilities, trees, parked vehicles, and establishments along the road right of way have prevented motorists from using them.

Land transport need not be confined to roads. Railways that used to run through CALABARZON must be restored to transport cargo and passengers. Reliable mass transport is the answer to traffic congestion.

Water transport is also essential for CALABARZON to connect to the other regions and to connect the island municipalities. However, the use of the Batangas port is not maximized due to inadequate ancillary services.

The seamless integration of different transport modes and efficiency of transfer facilities such as terminals in urban areas with high traffic congestion and physical linkages between urban and rural areas must be improved. Further, the quality of transport infrastructure and other support facilities and utilities must also be improved to meet national and global standards, enhance public mobility, reduce negative environmental impacts, and strengthen resiliency to disasters.

CALABARZON's growing population and the expanding industry and services sectors require faster and more reliable internet connection. The region is faced with poorquality internet connection and limited free internet access in public areas, which can limit productivity and participation in the global economy.

Decreasing agricultural lands

Land devoted to agricultural production has decreased through the years because of continuous conversion to other nonagricultural uses.

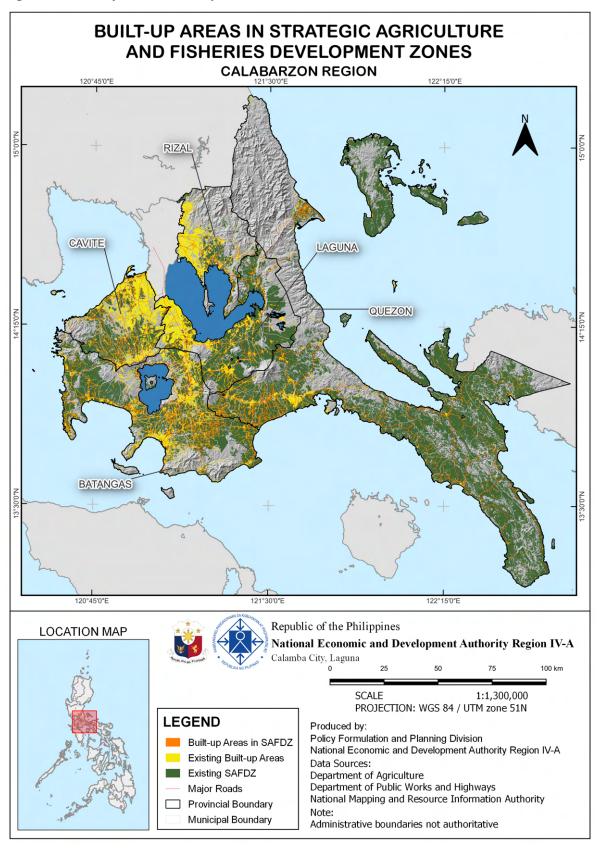
The increase in the population increased the demand for settlements in urban areas with access to better jobs and social services. However, this resulted in the encroachment of settlements into the production areas, particularly in agricultural areas (Figure 2.14). From 1988 to 2018, the Department of Agrarian Reform approved around 21,072 ha of agricultural land for conversion. However, in some instances, premature conversion happens, especially when the LGU reclassifies agricultural lands for other uses through its Sanggunian without going through the proper process or when agricultural lands are abandoned and left idle. The growing population has driven the increased demand for settlement, industrial, and commercial lands. Moreover, conversion intensified as the land value increased. Increasing agricultural land conversion without proper evaluation could threaten food security and increase the farmers' vulnerability to displacement.

As of 2015, production areas for agriculture and fisheries have been declining at an annual average rate of 0.15 percent. This decline has also contributed to the declining production of major high-value crops such as cacao, coffee, sugarcane, banana, white corn, coconut, and palay and to the very low performance of rice production.

Land use conflict

Many of these ecozones are in the region's industrial centers. The 58 operational

Figure 2.14 Built-up areas in SAFDZ, CALABARZON



ecozones, mostly concentrated in Cavite, Laguna, and Batangas, contribute the bulk of ecozone activity, indicating that these provinces are prime locations for industrial operation. Most ecozones in Cavite and Laguna host light to medium industries ranging from semiconductors and electronics to car assemblies. Batangas ecozones, meanwhile, host medium to heavy industries such as petroleum and oil refineries.

Of the 58 operational ecozones, 30 are within environmentally critical areas, and three are within protected areas (Figure 2.15). Land use conflicts are evident, particularly in the ecozones located within protected areas. The conflict is due to the fact that not all LGUs in the region have updated land use plans and zoning ordinances. On the other hand, appropriate physical planning measures should be identified and implemented as part of the comprehensive disaster mitigation plans for ecozones within environmentally critical areas to ensure minimal impact of its development on environmental quality.

With the extent of industrialization in the region, conflicting land use has become a commonly cited issue, along with land conversions from agricultural to other uses. Hence, effective and efficient allocation of land resources is needed to ensure adequate and accessible space for sustainable food production, forest and mineral resource extraction, industry, and tourism.

Deteriorating environmental quality

The increasing human and economic activities have strained the environment in providing the needed resources to support productive sectors and to provide areas for expanding settlements. While there are continuous efforts to rehabilitate denuded forestlands and mangrove areas, illegal logging, small-scale mining, and settlements can still be found in some upland or forest ecosystems. Illegal extraction of resources occurs in encroached forestlands or protected areas, putting the ecosystem's biodiversity at risk.

Due to rapid urbanization and unplanned or poorly managed settlements, solid waste management has become a major challenge. The insufficient number of materials recovery facilities and sanitary landfills, the poor implementation or lack of local solid waste management systems, and limited technical and financial capabilities have all contributed to the deteriorating quality of the environment, especially in urban areas.

The environmental quality of major rivers, Manila Bay and Laguna Lake, has also not improved due to domestic wastes, mostly from ISFs and upland communities, agricultural run-offs, and industrial effluents or untreated wastes discharged into water bodies. Other protected water bodies, such as the Taal Volcano Protected Landscape, are also threatened by encroachment and the negative effects of economic and residential activities.

Air pollution is also a major concern in urbanized and highly urbanized areas, as it can cause respiratory diseases. Sources of air pollution include industries, vehicles, and poor waste disposal. Many urban areas also lack air quality monitoring systems and strategies to improve air quality.

Production land use in environmentally critical areas

Environmentally critical areas are those prone to various types of hazards. In 2015, there were 87,557.84 ha of SAFDZ within environmentally constrained areas (Figure 2.16), most of which are located in the coastal and low-lying areas of Batangas and Quezon Provinces. SAFDZs within environmentally constrained areas need proper disaster risk reduction and climate change mitigation interventions to be useful for agriculture and fisheries development purposes. If left unaddressed, it will only increase the vulnerabilities of farmers and fisherfolks.

Cropping patterns, crop intensity, and good agricultural practices must also be considered

Figure 2.15 Ecozones in Environmentally Critical and Protected Areas, CALABARZON

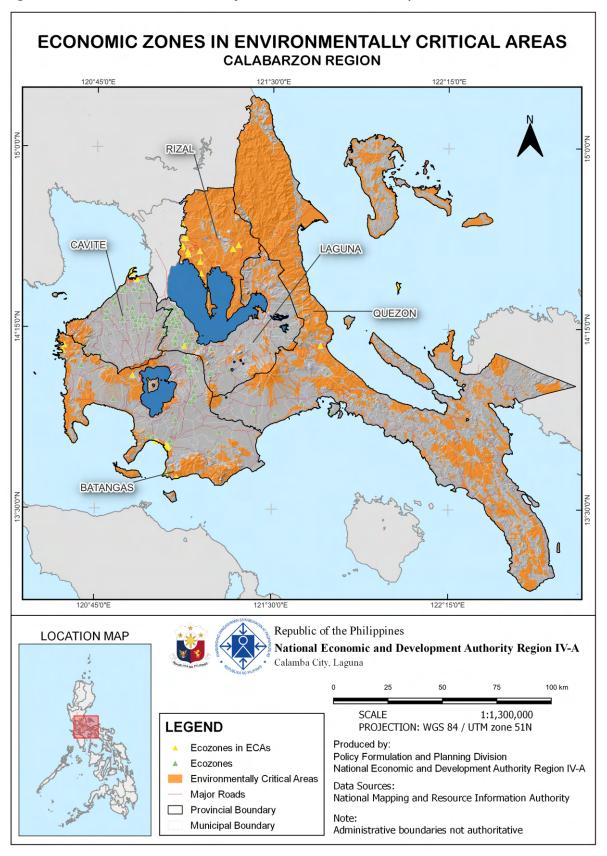
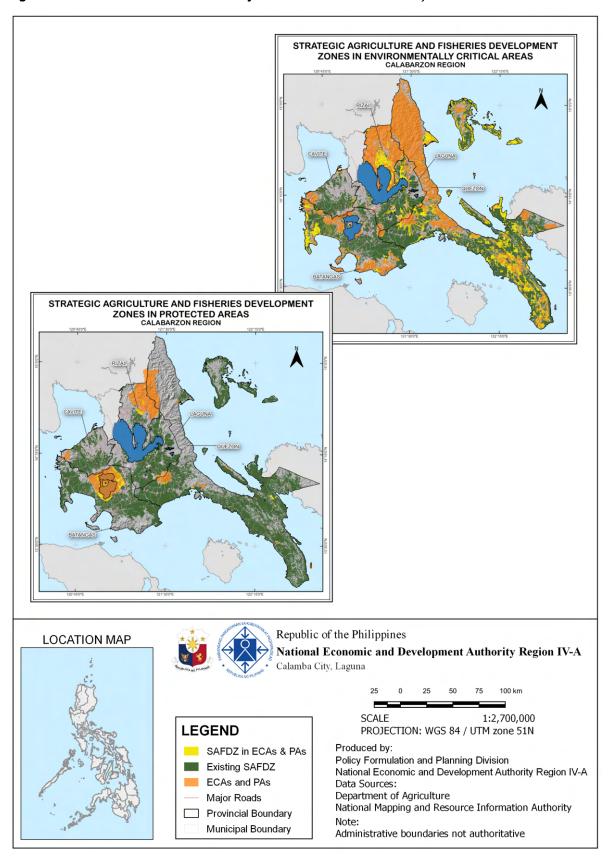


Figure 2.16 SAFDZ within Environmentally Critical and Protected Areas, CALABARZON



in utilizing SAFDZs within environmentally constrained areas. Otherwise, there is a need to reconsider and reclassify the SAFDZidentified areas into other more appropriate land uses.

In 2015, an estimated 22,503.35 ha of SAFDZ were within protected areas (Figure 2.16). Most of these areas are located in Batangas Province, with a total of 12,041.76 ha, and Rizal Province at 6,234.99 ha. SAFDZs in Batangas were generally within the Taal Volcano Protected Landscape.

For instance, Taal Lake's strategic location is ideal for agriculture and tourism purposes. However, several issues were noted, including overfishing, fish kills, lake water pollution from households and industries, endangering endemic fish species. While the primary goals are biodiversity conservation and agriculture modernization, there is a need to strengthen shared governance in allowing the use of protected areas for agriculture and fisheries development to prevent habitat loss and species extinction.

While ecotourism aims to ensure that tourism contributes to environmental conservation and supports local economic development, one ecotourism site - Pandin Lake in San Pablo City, Laguna - was reported in 2015 to be within the environmentally critical areas. Since ecotourism development involves the site and solicits the participation of people in the community, it must identify and implement appropriate physical planning measures. It must also ensure that ecotourism strategies are gender-responsive to reduce vulnerabilities and address the gender issues of stakeholders.

Disaster and climate change risks

The whole region is exposed to both hydrometeorological and geologic hazards. The presence of several active earthquake generators in the region increases the region's susceptibility to geologic hazards. For example, the West Valley Fault, cuts across the highly populated areas of Rizal, Laguna, Cavite, and Batangas provinces making these areas prone to earthquake-induced landslides, liquefaction, and ground shaking. Around 97.56 percent of the region's builtup areas are susceptible to ground shaking, while around 26.89 percent and 19.51 percent are highly susceptible to liquefaction and earthquake-induced landslides, respectively (Figure 2.17). The built-up areas on the region's coast are also highly susceptible to tsunamis (3.09 percent of the region's built-up area, Figure 2.17).

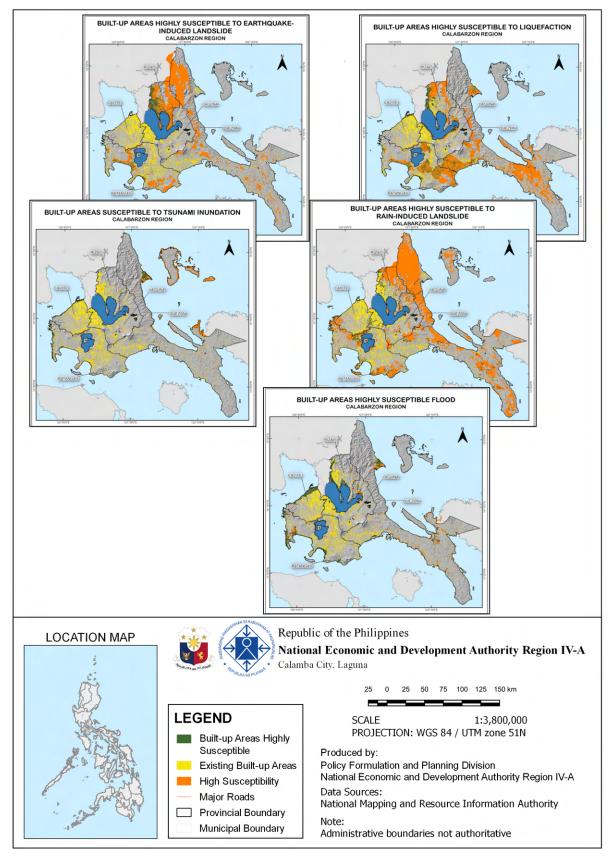
For hydrometeorological hazard, around 2.01 percent of the region's built-up areas are highly susceptible to rain-induced landslides, while 13.78 percent are highly susceptible to flooding (Figure 2.17) which could endanger around 1,985,755 and 289,300 people, respectively.

Disasters bring damage and losses to the environment and to vulnerable groups who reside in hazard-prone areas.

The changing climatic conditions have also aggravated the frequency and magnitude of disasters. The damages and losses from Typhoon Paeng in 2022 alone were estimated at PHP11.369 billion. The effects of prolonged droughts, strong typhoons, and increased torrential rainfall have already contributed to the decline in agriculture and fisheries sector production. Intense tropical storms with heavy rainfall can cause flooding and landslides in low-lying, steep, or mountainous areas. The poor, in particular, are more exposed to and are at risk of disasters due to limited resources and access to services.

The impact of natural disasters on housing and economic development is serious because it can impede the delivery of social services economic activities. While vulnerability varies across different housing types, the poorest communities suffer the most as they face various protection and recovery-related problems after a disaster. Hence, sustainable housing development

Figure 2.17 Built-Up Areas Highly Susceptible to Hazards, CALABARZON



is needed to address the increasing urban population's concerns and decrease the vulnerability of the population living in informal settlements.

Regional Spatial Development Framework

A sound spatial strategy is imperative to achieve the region's vision, goals, and development outcomes. The region's spatial strategy is embodied in the CALABARZON Regional Physical Framework Plan (RPFP) 2017 to 2046.

Centers, Corridors, and Wedges

The region continues to adopt the Centers, Corridors, and Wedges (CCW) approach as the region's spatial strategy. The CCW approach seeks to direct and stimulate development and growth from west to east of CALABARZON and strengthen northsouth development and access corridors. This approach links urban and rural populations better through a greater interplay of economic activities that, in effect, can generate additional income and employment opportunities.

Centers are the nucleus of economic activities with high population densities connected by built infrastructures and multi-modal transportation systems. Corridors primarily transportation arteries linking centers to centers serving as transit stations, interchanges, established neighborhoods, or general corridor areas. Wedges are tracts of land between corridors with less dense populations and limited housing supporting facilities and services. It also includes green corridors, protection, and production areas.

Regional Agglomeration, Connectivity, and Vulnerability Reduction

In line with the National Spatial Strategy of the National Physical Framework Plan and the Luzon Spatial Development Framework, the region, through the RPFP 2017-2046, also adopted the following interrelated strategies: Regional Agglomeration, Connectivity, and Vulnerability Reduction.

Regional agglomeration

Regional agglomeration aims to decongest Metro Manila by promoting scale and agglomeration economies in regional and subregional centers and managing the growth of large and more environmentally constrained metropolitan centers.

This strategy aims to enhance the ability of built-up areas or settlements to absorb as much growth as possible to increase the scale and efficiency of urban-based production services and markets. At the same time, it aims to reduce encroachment into agricultural land and other environmentally sensitive or protected areas. Through this strategy, the region continues to promote following: (1) urbanization the industrialization within the growth centers, (2) new developments in the localities identified as corridors, and (3) vertical development such as medium-rise buildings and inner-city revitalization, renewal, and infilling.

The concentration of employment facilities and services will also be observed through the promotion of efficient land use patterns (i.e., multiple-use and transit-oriented development in urban and urbanizing areas), provision and improvement of physical and regulatory support for industry and other businesses to thrive, and development of accessible and dense residential areas providing opportunities to work closer to home.

Among the benefits of economies of scale and agglomeration are lower production costs, increased business opportunities, promotion of high-quality skilled labor, and better employment opportunities, all contributing to poverty reduction. Conversely, there are diseconomies of agglomeration such as excessive competition, crowding, and congestion. It is essential to resolve the existing major challenges of urban clusters poor such as living environment, infrastructure, and service delivery, to reap the benefits of agglomeration and prevent suffering from its drawbacks (i.e., the occurrence of another pandemic).

CALABARZON's population is expected to reach 20,237,760 in 2046. Rapid urbanization is expected to continue. The region's average population density is estimated to increase from 870 persons per sq km in 2015 to 1,221 persons per sq km in 2046, with the province of Rizal and Cavite having the highest densities at more than 3,000 persons per sq km.

In terms of the network of settlements, the region adopted the typologies of settlements set by the National Spatial Strategy, namely:
1) metropolitan center; 2) regional center;
3) sub-regional center; 4) provincial center; and 5) local centers. The region also used the scalogram analysis to show the degree of access that people have to services and facilities.

Figure 2.18 shows the five-level network of settlements based on the 2015 population and projected 2046 population of the region, which shows that sub-regional centers, which form the market catchment of the region, will almost double from 22 LGUs in 2015 to 41 cities and municipalities in 2046.

Connectivity

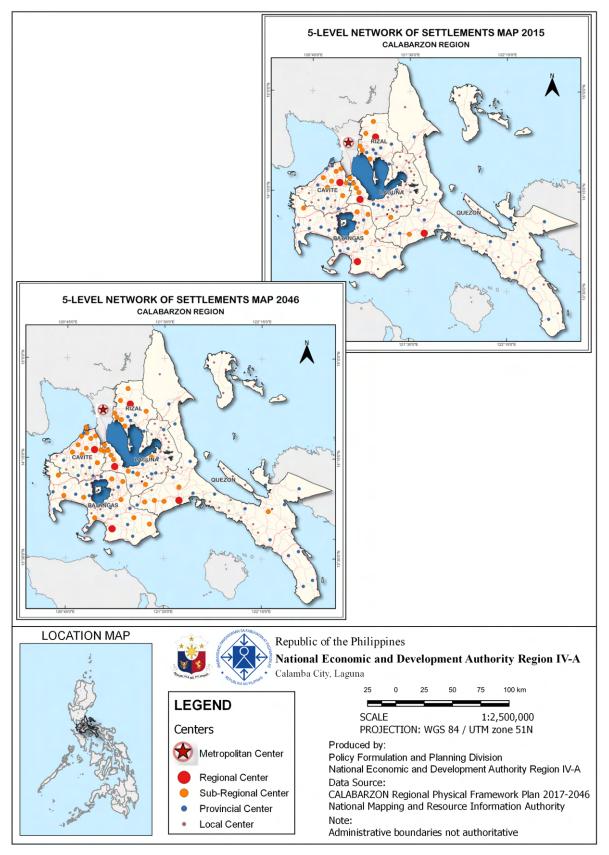
The connectivity strategy aims to improve and strengthen urban-rural linkages. This strategy specifically aims to increase access to and improve the efficiency of markets, manage the growth and development of settlements according to specific urban plans, and reduce vulnerability during emergencies by increasing the redundancy of transportation routes, communications, and other infrastructure facilities.

With the projected increase in population, the region will promote the development of multi-modal and intelligent transport systems and further develop internal and external linkages to other regions to increase efficiency and support a competitive regional economy. Thus, major interconnectivity projects will be pursued to strengthen the linkages with Luzon and Visayas regions.

Efficient and reliable multi-modal public transport and better pedestrian-priority spaces are encouraged, especially in urban centers. Road vehicle density will be closely monitored to minimize traffic congestion and road usage. Diversion and by-pass roads will also be constructed to ease major chokepoints. Logistics support and dependable information-communication technology networks will also be provided to industry locators.

Efficient transport and communication linkages between urban centers, urban-rural areas, and rural-rural areas will be pursued by constructing and maintaining paved

Figure 2.18 Five-Level Network of Settlement, CALABARZON, 2015 and 2046



roads, improving ports, and establishing reliable communication and high-speed internet networks. Furthermore, connectivity between production, settlement, and market areas will be improved by integrating land use and transport planning in local development plans and major programs and projects.

Vulnerability reduction

Vulnerability reduction efforts will be integrated with regional agglomeration and connectivity to develop disaster and climate-resilient infrastructure and facilities to reduce the risk and negative impacts of disasters on communities. These infrastructures include roads, floodways, dikes, hospitals, schools, government offices, and electricity, water, and communication systems critical during calamities. The construction of green

buildings and pursuit of other energy and resource-efficient technologies will also be promoted.

The region will continue to focus on mainstreaming disaster risk reduction and climate change mitigation measures in local development planning and improving the disaster-related capabilities of LGUs to reduce the vulnerability of individuals and families to environmental and natural risks. Settlements in high-risk areas will be avoided or relocated to reduce exposure to and damage due to hazards.

Climate adaptation measures such as watersheds, forests, and historical and cultural sites preservation and protection, and environment-friendly production of goods and services will also be supported.

Regional Physical Framework Strategy

The RPFP 2017 - 2046 provides the general direction in land use for four policy areas of the physical framework plan: settlement, production, protection, and infrastructure. Figure 2.19 highlights where the four policy areas are integrated into the unbuilt and built environments in the region. The protected areas are the life support system (see Chapter 16). Settlements are spaces for living (see

Chapter 4.3), while production areas are spaces for making a living (see Chapters 5 and 7). A transport network is needed to link settlements and production areas, while infrastructures and utilities are needed in settlements and production areas (Chapter 13). Managing the unbuilt and built environment requires good governance (Chapter 15).

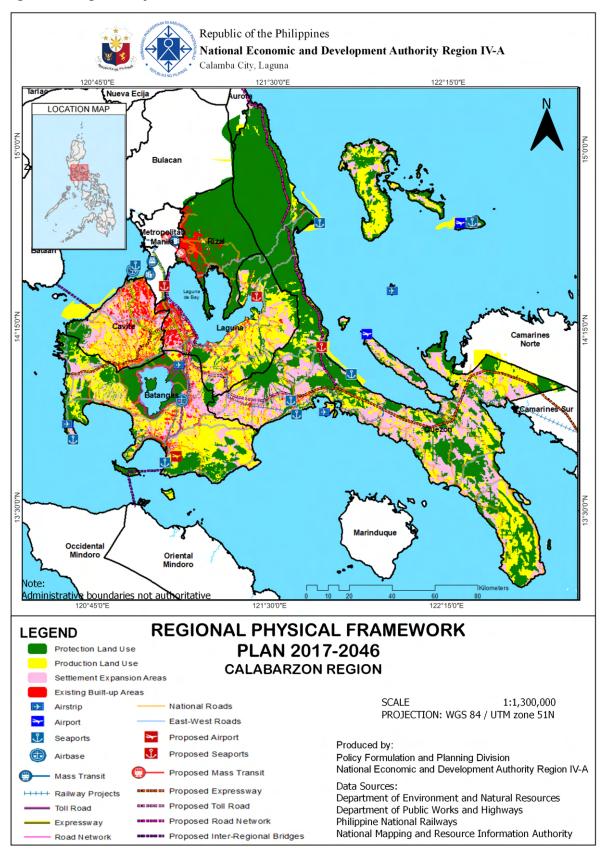
Strategic Development Clusters

The RPFP 2017 - 2046 identified the following strategic development clusters (SDC) to guide the desired direction for growth given the areas' functional roles to the region's and country's economy, as seen in Figure 2.20. Details of each SDC are in the CALABARZON RPFP 2014 to 2046.

SDC 1: Cavite and Laguna Industrial and Commercial Cluster

SDC 1 includes major cities and fasturbanizing municipalities in northern and central Cavite and western Laguna, which will serve as the center for industrial and commercial development in the region and will provide the highest level of urban services and amenities to its residents.

Figure 2.19 Regional Physical Framework Plan of CALABARZON 2017-2046



The industrial and commercial cluster also serves as a major entry point to CALABARZON and caters to the increasing and diverse population brought by inmigration. The highly developed commercial and industrial centers will also serve nearby emerging growth centers and link rural areas to growth and market centers.

SDC 2: Metro Batangas Cluster

Heavy and large industries such petrochemicals, shipbuilding, repair, and processing in Batangas City will be modernized and expanded. The industrial area of existing manufacturing ecozones in Tanauan City, Santo Tomas, and Malvar will be fully maximized as part of the region's core industrial corridor, which spans the western side of Laguna and central Cavite. Light and service-oriented industries in Lipa City will complement the heavy industries in the northern and southern areas. While Batangas City serves as the industrial and current administrative center, Lipa City's central location is ideal as a service, institutional, and commercial center of the cluster to reach most of the municipalities in Batangas province.

SDC 3: Western Cavite and Batangas Agriculture and Tourism Cluster

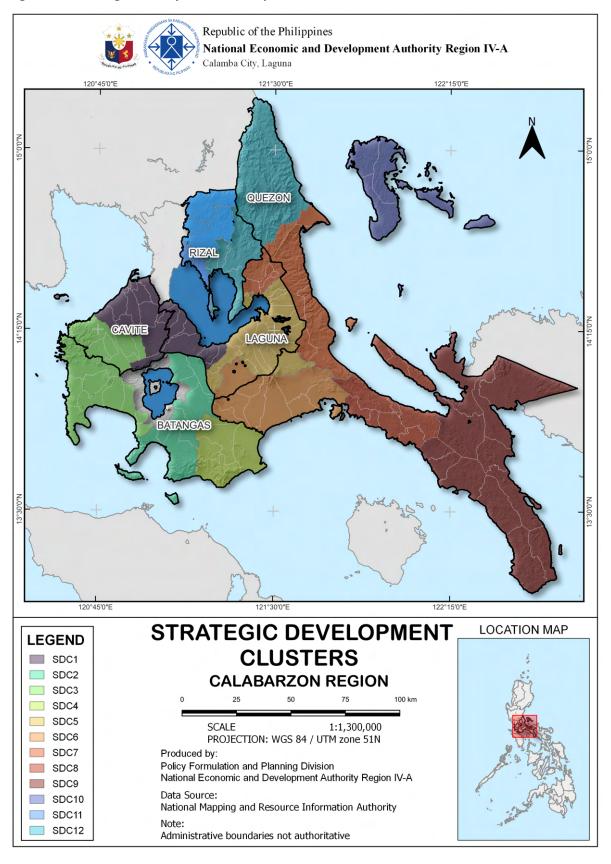
This cluster comprises Cavite and Batangas's upland and coastal municipalities, whose main economic activities are agriculture and services. The production in this area will supply the agricultural needs of urban areas in Cavite and Batangas. The cluster will produce rice, corn, vegetables, coffee, sugarcane, and fish from coastal and inland fishing. The natural environment and agricultural and cultural resources will be the base for tourism activities. The tourism areas will include the stretches of beaches in the coastal municipalities of Nasugbu, Lian, and Calatagan and the rich forests

Mounts Palay-Palay-Mataas-na-Gulod Landscape in Protected Ternate Maragondon in Cavite, and Nasugbu in Batangas. Tourism areas will also cover the rich history and preserved cultural assets such as old churches, museums, and sustained local festivities in Taal and Agoncillo. In consideration of the ridgeto-reef approach, developments in the area will be subjected to strict environmental safeguards and monitoring as the upland, protected, and coastal areas can affect the quality of groundwater and the lake water in downstream areas in Cavite, along Metro Manila, and other towns surrounding Taal Lake.

SDC 4: Batangas Agri-based and Tourism Cluster

Economic activities in these areas are mostly concentrated on livestock, fishing, and agriculture. The municipalities of Padre Garcia and Taysan in Batangas are livestock and poultry producers known for their auction animal markets. The area's existing livestock and poultry production shall be sustained with due regard to the environment to meet the demand in the urban areas of Batangas, other provinces in the region, and even in Metro Manila. Meanwhile, the coastal municipalities of Lobo and San Juan rely on fishing. Also, beautiful beaches, mangrove areas, rich marine life, and other natural tourist destinations will attract visitors Metro Manila and those from the region. Environmental protection, proper zoning, and delineation will be implemented to preserve these natural endowments and sustain tourism-based activities, especially in coastal, marine, and upland areas.

Figure 2.20 Strategic Development Clusters, CALABARZON



SDC 5: Laguna Lakeshore and Banahaw Cluster

This area comprises municipalities on the western side of Laguna along the coast of Laguna Lake and other upland municipalities of Rizal, Nagcarlan, Liliw, and Majayjay in Laguna, and Lucban in Quezon whose main economic activities are agriculture and fishery. The area will be developed as a food basket, eco, and agri-tourism destination in CALABARZON. The focus will be on producing lowland rice, vegetables, plant and orchid nurseries, fruit, and forest trees. Agro-forestry will be encouraged at the foot of Mount Banahaw. Ecotourism activities will also be promoted in the areas of Pagsanjan-Lumban-Kalayaan Pakil-Pangil. Tourism activities will be strongly linked with local industries such as handicrafts and furniture, shoemaking, and local delicacies. Eco- and agritourism will also be strongly promoted in Rizal, Nagcarlan, Liliw, Majayjay, and Lucban. To maximize and sustain tourism gains, the quality, value, and promotion of tourism products and experiences will be enhanced through strong collaboration among LGUs, relevant agencies, and the academe.

SDC 6: Laguna-Quezon Agri-Industrial Cluster

This growth cluster, which starts from San Pablo City, Laguna and ends in Pagbilao, Quezon, will sustain the two main economic centers of San Pablo City and Lucena City. San Pablo City will sustain its inland trading, coconut-based processing center, and institutional functions. The city's development is vital to the continued viability of the largely homogenous inland coconut and upland farming communities surrounding it. The development of Lucena City is crucial and strategic to foster the development of the Bondoc Peninsula, the two provinces of Marinduque and Romblon

in the MIMAROPA Region, and even some municipalities in northern Bicol. The city performs trading, commercial, educational, and institutional functions, and runs a coconut-based industrial processing center.

SDC 7: Infanta-Mauban-Famy Growth Triangle

The Infanta-Mauban-Famy growth triangle is an emerging growth center presenting viable economic opportunities in the eastern portion of CALABARZON. Siniloan in Laguna and Infanta in Quezon will continue performing their roles as economic activity centers. In particular, Siniloan will serve as a trade and service center for agriculture by improving and upgrading its processing and storage facilities. Due to its location along the eastern Pacific coast and the availability of land, Mauban and Infanta's potential for port expansion development or establishment of ecozones will be supported expected especially since the latter is adjacent to accelerate development in municipalities in the eastern portion of the region. Lands set aside for agriculture and fishing grounds will also be conserved, and production will be increased by adopting modern farming practices, inputs, and equipment. Only light to medium industries with appropriate environmental safeguards are encouraged, as tourism activities featuring the natural environment – beaches, forests, and waterfalls - will be further developed in Real, Infanta, and Mauban.

SDC 8: Central Quezon Processing Center

This cluster comprises the municipalities of Atimonan, Plaridel, Gumaca, Padre Burgos, Agdangan, Unisan, Pitogo, and the island municipalities of Perez, Alabat, and Quezon, where agriculture and fishery production are the major economic activities. Agriculture and fishery production also need to be

modernized in the area. Based on their available natural resources, municipalities in the area are encouraged to identify a "town" product that they can produce and sell for a higher value to other markets in CALABARZON or to other regions. Aside from coconut, municipalities can also look into planting high-value crops, vegetables, and fruits.

SDC 9: Southern Quezon Institutional Cluster

Traditional agriculture and fishery are the main economic activities in the cluster. The cluster's role in food production will be supported by constructing strategic farmto-market roads, providing modern farming equipment, and introducing best farm practices and inputs. Government services will be made accessible to these remote areas by setting up satellite or field offices to improve human capital development. The government's presence will be strengthened to ensure peace and order. Utilities such as power, water, and communications will be established and maintained, especially in far-flung communities. Within the cluster, existing and emerging rural service providing higher-level centers services will be developed through government infrastructure. At the same time, the private sector will be encouraged to set up micro, small, and medium enterprises.

SDC 10: Polillo Island Cluster

Polillo will be developed as the center of economic activities in this cluster, aside from being a major fishing base. All the municipalities have good potentials for ecotourism. Thus, policies and programs will be implemented to attract investments in ecotourism businesses and facilities that meet national and international standards. A cluster approach to tourism will also be pursued by developing and promoting an

array of tourism circuits throughout the Environmental protection cluster. conservation measures will be strictly enforced to sustain the cluster's tourism, fishing, and other economic activities. Disaster and climate change mitigation and adaptation measures will be implemented to reduce impacts on natural ecosystems and local communities.

SDC 11: Metro Rizal Industrial and Commercial Cluster

The Metro Rizal Industrial and Commercial Cluster comprises the highly urbanized municipalities of Cainta, Taytay, Angono, Binangonan, San Mateo, and Rodriguez, and the city of Antipolo. Given their proximity to Metro Manila, these localities are suitable sites for housing and resettlement. However, since these localities are attractive as settlement sites, measures will be taken to stop the encroachment of protected areas in Rodriguez, San Mateo, and Antipolo City. Adequate protection and conservation measures will be put in place by national and local governments in protected areas and Ancestral Domain Areas in Rodriguez, San Mateo, and Antipolo City. On disaster risk reduction, mitigating and adaptive measures will be implemented in Tanay, Rodriguez, and San Mateo, which are highly susceptible to rain-induced landslides, and in Taytay, Angono, and Binangonan, which have lowlying areas susceptible to flooding.

SDC 12: Rizal-Quezon Protection Cluster

This resource-based cluster comprises a group of municipalities in Rizal, namely, Tanay, Teresa, Cardona, Morong, Baras, Pililla, and Iala-Iala, and General Nakar in Quezon. The cluster also includes parts of the municipality of Rodriguez, San Mateo, and Antipolo City since it shares a contiguous mountain range with General Nakar. Owing to the ecological sensitivity of the cluster and the need to preserve biodiversity, its development will be carefully planned. Protected areas and those with high ecological value in General Nakar, Tanay, and Rodriguez will be conserved. Policies, programs, and projects will be implemented to protect and promote sustainable and equitable development of the Indigenous Peoples and their ancestral domains.

Resource-based enterprises utilizing natural products and the natural environment, i.e., ecotourism, will be pursued. Fisherfolks and farmers will also be supported as fishery and agriculture are the main economic activities in the area. Highly pollutive industries will be discouraged. Light to medium enterprises can be established if appropriate environmental protection and pollution-mitigating measures are ensured.

Special Development Areas

Laguna Lake Cluster

The Laguna Lake and its surrounding lands covering several municipalities and cities are of vital importance to the development of the region because of the many communities that rely on it for livelihood. Laguna Lake divides 61 LGUs composed of 43 municipalities and 18 cities with an estimated population of six million. This area suffers from deteriorating water quality, pollution, illegal structures along the lakeshore, flooding, and overfishing.

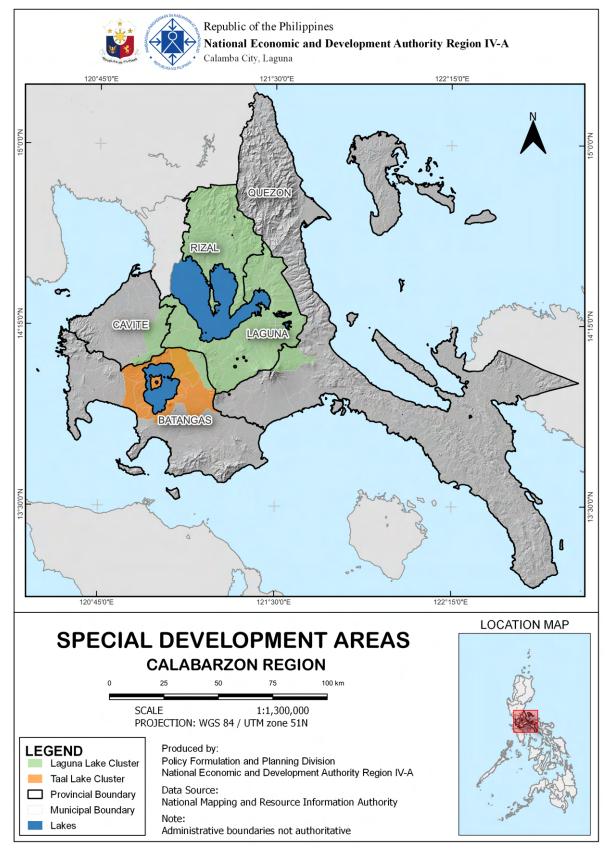
Waterfront urban developments are proposed for the areas surrounding Laguna Lake with a mixed-use approach that includes housing, commerce, trade, tourism and other urban land use. This development will be achieved through comprehensive and collaborative planning between concerned LGUs and the Laguna Lake Development Authority to rehabilitate and protect the Laguna Lake Region. Illegal structures along the lakeshore and in the lake itself will be removed. Prime agriculture lands adjacent to the lakeshore will be maintained, and reforestation of the watershed will be intensified. Ecotourism with the appropriate environmental protection measures will be pursued.

Because of the declining water quality and for ecological reasons, the use of urban lands along the lakeshore will be rationalized, and industrial development or expansion will be discouraged. The lake can also serve as a hydro-technology production zone where certain areas will be reserved for innovative lake water treatment to produce potable water for surrounding LGUs. Fishing and aquaculture activities will be strictly regulated to ensure equitable economic opportunities and to rehabilitate the lake. Water transport will be developed as an alternate mode of transportation.

Taal Lake Cluster

The Taal Lake Cluster (Figure 2.21) will continue to serve as the agriculture, fishery, ecotourism, and leisure zone to stimulate the development of sustainable lakeside communities. Due to its high susceptibility volcanic hazards, communities surrounding Taal Lake must implement appropriate mitigation and preparedness measures. These include the establishment of comprehensive preparedness, warning, and evacuation plans, improvement of early warning alert systems, retrofitting existing buildings, constructing new, disaster-resilient buildings, and enforcing legal easement along lakes and riverbanks. Meanwhile, dwellings in the permanent danger zone in Taal Volcano Island will be strictly prohibited.

Figure 2.21 Special Development Areas, CALABARZON



Endnotes

- 1 CALABARZON Regional Physical Framework Plan 2017 to 2046
- 2 House of Representative 19th Congress
- 3 NAMRIA advises maintaining the 2006 Land Classification data while waiting for the enactment of the law fixing the final forest land limits of the country and the completion of the Land Management Bureau's Cadastral Project to determine the administrative boundary of the LGUs.



Overview of the Regional Development Plan 2023-2028 Strategy Framework

Overview of the Regional Development Plan 2023-2028 Strategy Framework

"By 2040, the Philippines shall be a prosperous, predominantly middle-class society where no one is poor. Our peoples will enjoy long and healthy lives, are smart and innovative, and will live in a high-trust society."

AmBisyon Natin 2040

The Regional Development Plan (RDP) 2023-2028 will serve as CALABARZON's development framework until 2028. It is anchored on the country's long-term vision of a Matatag, Maginhawa, at Panatag na Buhay, or the Ambisyon Natin 2040. It prioritizes job creation and poverty reduction, consistent with the current Administration's Eight-Point Socioeconomic Agenda. Moreover, the RDP was aligned with the Philippine Development Plan (PDP) 2023-2028 and other national sectoral plans to support the country's development goals. Strategies from the PDP were adopted, considering CALABARZON's situation and distinctive features, as well as the lessons learned during the pandemic. Regional sectoral plans were also considered to strengthen the integration of the plan's strategies with development initiatives already identified in the region.

CALABARZON, through the RDP, intends to boost its economy by capitalizing on its strength as the country's primary industrial region and diversifying its growth drivers by developing its other sectors, i.e., services and agriculture. The plan identified strategies to promote balanced development among the sectors, such as revitalizing the industry sector, reinvigorating the services sector, and modernizing the

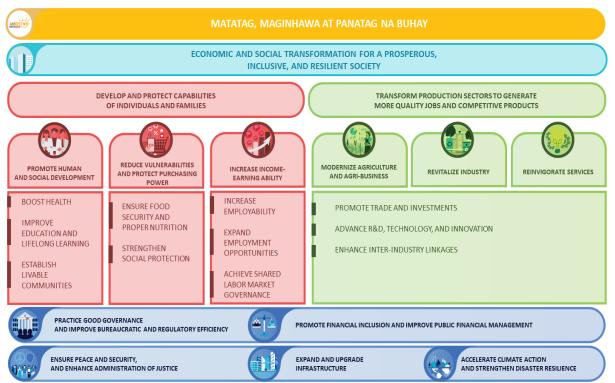
agriculture sector. For the industry sector, CALABARZON will promote its five priority industries, i.e., Information Technology and Business Process Management (IT-BPM), metals, electronics, automotive, and petrochemicals, identified by the Regional Development Council (RDC)- Investment Promotion Group.

The region's priorities and focus areas were integrated into the plan, including renewable energy development, inter-regional connectivity, internet connectivity, smart infrastructure, innovation, regional equity, climate change, and the development of Geographically Isolated and Disadvantaged Areas. Further, key development concepts and principles were mainstreamed throughout the plan document, such as migration and development, culture and values, demographic dividend, volunteerism, disaster risk reduction and management, and gender and development.

The plan also recognizes the critical role of the private sector in achieving the region's development targets. Hence, strategies to be implemented in partnership with the private sector were included in the strategy frameworks of the different sectors.

Strategy Framework

Figure 3.1 Regional Development Plan 2023-2028 Strategy Framework



Anchored on the Ambisyon Natin 2040, the RDP aims for economic and social transformation for a prosperous, inclusive, and resilient society by 2028. This goal will be achieved by developing and protecting the capabilities of individuals and families and transforming the production sectors to generate more quality jobs and competitive products. Further, the RDP has identified cross-

cutting strategies for an enabling environment supportive of the desired economic and social transformation, as illustrated at the bottom of the RDP Strategy Framework (Figure 3.1), which includes practicing good governance and improving bureaucratic efficiency, ensuring peace and security, and enhancing the administration of justice, among others.

Develop and protect the capabilities of individuals and families

The region recognizes the importance of developing and protecting the capabilities of individuals and families for inclusive growth. This will be achieved by boosting the population's health, including their physical, mental, and social well-being (Chapter 4.1). With the learnings from the pandemic, the access, quality, and efficiency

of the healthcare system will be improved, along with other strategies to advance health. The region will also focus on addressing the learning losses brought by the pandemic by ensuring transformative lifelong learning opportunities (Chapter 4.2). The health and education sector will be supported by livable communities (Chapter 4.3) by upgrading the

built environment and improving the social condition and environmental quality.

The vulnerabilities of the population will be addressed, and their purchasing power will be protected by ensuring food security and proper nutrition (Chapter 5.1), and strengthening social protection (Chapter 5.2). The region will work for a sufficient and stable supply of food commodities and expanded access to affordable, safe, and nutritious food. Various socioeconomic risks such as natural

or human-induced hazards will be addressed to strengthen social protection, particularly for vulnerable groups.

Moreover, consistent with the plan's goal of creating jobs, the region will increase the labor force's income-earning ability by linking the education system with current and emerging labor market demand and strengthening training and development programs to enrich credentials, skills, and competencies (Chapter 5).

Transform the production sectors to generate more quality jobs and competitive products

The region will take advantage of the growth in the production sectors to generate the desired quality jobs. The agri-fishery and agribusiness will be modernized through a holistic agri-food system approach that considers Agriculture, Forestry and Fishery (AFF) production as tightly linked to processing, marketing, consumption, and waste management (Chapter 7). At the same time, the industry sector will be revitalized by promoting value-chain and expanding domestic production and supplier base (Chapter 8). In the case of the services sector, strategies were identified to help MSMEs recover from the adverse impact of the

pandemic, including the hard-hit tourism sector (Chapter 9).

The inter-sectoral linkage among these sectors will also be enhanced to achieve each sector's desired outcomes. Trade and investments in goods and services will be promoted (Chapter 11). The CALABARZON export sectors will be restored, sustained, and strengthened, and unique locational assets will be developed, particularly in rural areas, to increase investments. Moreover, research and development (R&D), technology, and innovation will be advanced for more competitive products (Chapter 10).

Create an enabling environment supportive of the desired economic and social transformation

To support the outcome of a prosperous, inclusive, and resilient society, the plan includes cross-sectoral strategies to create an enabling environment supportive of its other strategies. The cross-sectoral strategies cover

infrastructure, governance, finance, peace and security, justice, climate change, and disaster resilience.

Targets

The following strategies will be implemented to achieve the sector and subsector outcomes and targets:

Sustain CALABARZON's high levels of economic growth from 6.0 to 7.0 percent in **2023 to 6.5 to 8.1 percent in 2028**. Economic growth is expected to come from the gains from all sectors, particularly in the industry and transportation sectors or sub-sectors.

Reduce the unemployment rate. The pandemic hampered the region's consistent downward trend in the unemployment rate which was at 6.2 percent in 2019 and at 11.6 percent during the pandemic. The target is to bring back the region to its downward trend, pre-pandemic level, to 5.9 to 6.2 percent in 2028. The region will rely on transforming production sectors to generate more quality jobs for the region's labor force.

Reduce poverty incidence. CALABARZON already achieved a single-digit poverty incidence in 2018, with 7.1 percent among population. It increased to 10.2 percent in 2021 due mainly to the adverse impact of the pandemic on the region's socioeconomic situation. For 2028, the region targets to further reduce poverty, lower than its 2021 poverty incidence, to 5.0 percent population. To achieve this, the focus will be on uplifting municipalities with poverty incidence higher than the national level based on the PSA's 2018 Municipal and City Level Poverty Estimates by increasing productivity and building resilience.

Table 3.1 Regional Development Plan 2023-2028 Targets

INDICATOR	BASELINE (2021)		EOP (2028)				
		2023	2024	2025	2026	2027	TARGET
Gross Regional Domestic Product (growth rate, %)	7.6	6.0-7.0	6.5-8.1	6.5-8.1	6.5-8.1	6.5-8.1	6.5-8.1
AFF	(9.4)	0.8-1.0	0.9-1.2	1.0-1.3	1.0-1.4	1.1-1.4	1.2-1.5
Industry	11.2	6.3-7.3	6.8-8.5	6.8-8.4	6.8-8.4	6.7-8.4	6.7-8.4
Services	5.9	6.2-7.2	6.7-8.4	6.7-8.3	6.7-8.3	6.7-8.3	6.7-8.3
Unemployment rate	11.3	6.8-7.7	6.5-7.6	6.3-7.1	6.1-6.9	6.0-6.7	5.9-6.2
Poverty incidence among population	10.2	8.9		6.6		5.0	5.0

PART II

Develop and Protect Capabilites of Individuals and Families



Promote Human and Social Development

In the next six years, the CALABARZON Region will develop the capabilities of individuals and families to enable them to participate in growth opportunities. Interventions will focus on promoting good health, expanding opportunities for transformative lifelong learning, and establishing livable communities. This chapter presents the lessons learned from previous human and social development efforts and the key strategies to address the gaps toward a livable region with healthy individuals and families with enough opportunities for lifelong learning.

Subchapter 4.1 Boost Health

This sub-chapter focuses on the region's health sector performance, challenges, and priority measures. Among the strategies that will be pursued are: a) enabling healthy and behavior choices by promoting health-seeking behavior and increasing health literacy; b) improving access, quality, and efficiency of health care; c) improving determinants of health; and d) strengthening health systems by increasing investments in health.

Assessment and Challenges

The region's health sector generally **improved.** There was a decrease in mortality rates from 2017 to 2021 according to the Field Health Services Information System (FHSIS). This is attributed to the continuous provision of family health services and advocacy activities of the health sector government agencies. However, COVID-19 remains a threat despite the gradual lifting of government policies on mobility restrictions. The health sector challenges were exacerbated by insufficient number of health workers, limited access to health facilities, and increasing incidence of non-communicable diseases. Thus, more interventions will be implemented to achieve the region's goal of boosting health.

Target population for COVID-19 vaccination achieved. As of December 4, 2022, the Department of Health (DOH) Region IV-A reported 545,039 COVID-19 cases, with 97.2 percent recoveries and 2.57 percent deaths. Meanwhile, the rollout of vaccines against COVID-19 was facilitated by the DOH Regional Office and LGUs, with over 10 million individuals, or 91 percent of the target population of over 11 million, already fully vaccinated.

Child immunization coverage remained below target. The rate of fully immunized one-year-old children decreased from 63.27 percent in 2017 to 32.95 percent in 2021. Prioritization of COVID-19 activities and insufficiency of the number of health workers

were perceived as major contributors to the unattained target.

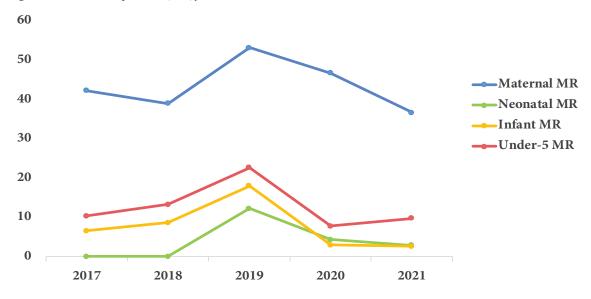
Use of contraceptives for family planning decreased. The prevalence ratio of contraceptives for modern family planning decreased from 37.12 percent in 2017 to 9.52 percent in 2021. Inadequate number of health personnel and COVID-19-related interventions were noted as factors that hindered the prioritization of other health services.

New Human Immunodeficiency Virus (HIV) cases increased. New HIV cases increased from 1,807 in 2017 to 2,307 in 2021, with 139 deaths. The region ranked second in the country with the most number of reported cases after the NCR, with 3,627 cases in 2021.

Nutrition initiatives eased malnutrition. According to the Operation Timbang Plus of the National Nutrition Council (NNC) Region IV-A, stunting for children under five years old decreased from 11.09 percent in 2017 to 8.43 percent in 2019. The prevalence of malnutrition in underweight, wasting, and obesity decreased from 2017 to 2019. Municipalities in Quezon Province were among the top 10 localities with high stunting and wasting prevalence. Even with the COVID-19 pandemic, NNC Region IV-A continues to implement the Regional Plan of Action for Nutrition (RPAN) 2017-2022. This plan serves as CALABARZON LGUs' blueprint for implementing nutrition-specific, nutrition-sensitive, and enabling programs

(see Chapter 5.1).

Figure 4.1.1 Mortality Ratio (MR), 2017 to 2021



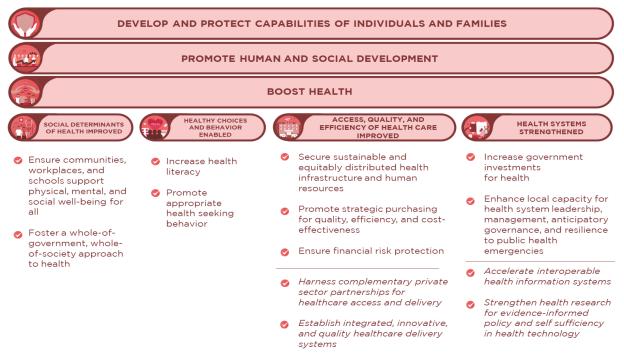
Source: Field Health Services Information System, DOH

Note: FHSIS' Neonatal Tetanus MR data was used for the Neonatal MR data for the period 2017-2018

Strategy Framework

To boost health, the region will continue to: a) improve the social determinants of health; b) enable human choices and behavior; c) improve the accessibility, quality, and efficiency of healthcare services; and d) strengthen the health systems.

Figure 4.1.2 Strategy Framework to Boost Health



Strategies

Outcome 1: Social determinants of health improved

Ensure communities, workplaces, and schools support physical, mental, and social well-being of all

This strategy will be implemented through improved access to safe drinking water and basic sanitation by capacitating LGUs to implement their Solid Waste Management Plans and ensuring a reliable water supply. The regional offices of DOH and the Department of Interior and Local Government (DILG) will also ensure the implementation of DOH-DILG Joint Administrative Order No. 2021-0002 or the National Policy Framework on the Promotion and Recognition of Healthy Communities and DOH's Local Health System Health Promotion Playbooks.

Healthy settings or environments in the region will be increased by establishing and upgrading safe open spaces, parks, playgrounds, wider sidewalks, and cycling routes that promote health and mobility.

Strong collaboration and coordination among the national and local governments, and the private sector are necessary to provide an enabling environment and livable communities that promote conducive working and learning spaces for all.

Foster a whole-of-government, whole-of-society approach to health

For several years, CALABARZON has actively promoted and implemented the whole-of-government, whole-of-society approach to development, including the health sector. The Sectoral Committee on Social Development/Social Protection (SCSD/SP) will continue to spearhead interventions to address issues and concerns on health and the implementation of

the Universal Health Care, and Responsible Parenthood and Reproductive Health Laws.

Meanwhile, strengthened public and private sector convergence will be pursued to ensure the implementation of health-related programs and interventions. Among these is the convergence of LGUs, regional line agencies, academe, and the private sector on public policies related to teenage pregnancy and nutrition and promotion of and dissemination information healthy on lifestyle in schools and workplaces. Key partner agencies like the DILG, NNC, DOH, Department of Labor and Employment, Civil Service Commission, and the academe will be tapped to implement and promote these programs.

Furthermore, pursuant to the implementation of Republic Act No. 11036 or the Mental Health Act, DOH Region IV-A established a Regional Mental Health Council to set a standard for patients' referral system, including *barangay* health stations to rural health units and hospitals. An inter-agency

collaboration will be pursued to identify key enablers and address barriers to protect the rights of Filipinos with mental health needs.

Mainstreaming gender and development (GAD) in various institutions' programs, projects, and activities is also important to ensure that interventions are targeted, especially for marginalized and vulnerable sectors. CALABARZON is one of the regions with an advanced level of gender mainstreaming. Quezon Province is among the few local learning hubs certified by the Philippine Commission on Women (PCW) while Cavite State University is a multi-year awardee of the CALABARZON Outstanding GAD implementer. The region also houses several National GAD Resource Pool members certified by the PCW, and it has its own GAD Resource Pool certified by the Regional Gender and Development Committee. These mechanisms will contribute to addressing health concerns and providing appropriate services to beneficiaries.

Outcome 2: Human choices and behavior enabled

Increase health literacy

Health literacy is the ability to access, understand, and apply health information. It is needed to manage health, behaviors, self-care appropriate effectively. Communication campaigns will continuously implemented through various to encourage individuals households to live healthily and make good choices for health. At the same time, concerned government agencies will maximize existing health promotion and advocacy platforms among households with people whose income fall below the poverty threshold. Health education programs and activities will be effectively promoted in primary and secondary education through the eTURO project of DOH Region IV-A. The project aims to provide adolescents with safe space, counseling, and a pool of adolescent health champions.

The Commission Population on Development will continue to lead the implementation of the Adolescent Health and Development Program, Responsible Parenthood and Family Planning, and the Kalalakihang Tapat sa Responsibilidad at Obligasyon sa Pamilya, to promote health literacy. The DOH and the NNC will promote health and nutrition through campaigns on preventing water-borne diseases, influenza, leptospirosis, dengue (WILD), and other diseases. The LGUs will conduct various physical and mental health and nutrition awareness campaigns, counseling,

programs. The region will also be guided by the inter-agency action plan on teenage pregnancy, which the SCSD/SP formulated to address the increasing prevalence of adolescent pregnancy.

Promote appropriate health-seeking behavior

Households and individuals will be empowered with the knowledge and resources to recognize when medical care is necessary to seek care at the appropriate levels. Strengthening programs and training on mental health for health workers and individuals will also be prioritized.

Facilitating the registration of Filipinos to public or private primary care providers of their choice will promote the efficient use of health services and reduce wastage at other levels of care, such as the *Konsulta* package of the Philippine Health Insurance Corporation (PhilHealth). The PhilHealth *Konsulta* aims to protect the health of every Filipino against chronic illnesses, avoid complications through early detection, and provide affordable drugs and medicines. This will eventually transition to a comprehensive outpatient benefit package that seeks to improve service inclusions, costing and rate-setting mechanisms, and provider payment and engagement.

Outcome 3: Access, quality, and efficiency of health care improved

Secure sustainable and equitably distributed health infrastructure and human resources

The implementation of the Philippine Health Facility Development Plan 2020–2040 and the National Human Resources for Health Master Plan 2020–2040 will be supported to address the large and growing gap in health infrastructure and human resources. Implementing these plans will ensure the provision of standardized and competitive compensation, protection, benefits, and incentives, as well as gender equality in the health workforce, to attract more competent Human Resources for Health (HRH).

The DOH HRH Deployment Program will be continuously implemented to address the low health workforce-to-population ratio, particularly in rural areas. The program deploys health professionals to the barrios to support and complement HRH at the local level. In addition, DOH Region IV-A will also lead the training for the *Katutubo* Health Workers for the Indigenous Cultural Communities/Indigenous Peoples of Tanay,

Rizal, supported by a joint memorandum signed in August 2022.

The establishment of additional medical schools, provision of scholarship programs with return services, and promotion of the Balik Scientist Program of the Department of Science and Technology (DOST) will also augment the health workforce in the region. Meanwhile, the qualification standards for educators in medicine-related courses will be revisited to produce more competent HRH.

The Health Facilities and Equipment Enhancement Program (HFEP) of the provincial governments and DOH Region IV-A will continuously increase and improve health facilities and equipment in the region. Among the priority hospitals in the HFEP are the Regional Center for Mental Health or Cavite Center for Mental Health in Trece Martires City, General Emilio Aguinaldo Memorial Hospital, Laguna Medical Center in Sta. Cruz, Laguna, Quezon Medical Center in Lucena City, and district hospitals. Moreover, the continuous rehabilitation of the Southern Tagalog Regional Hospital in Bacoor City will

contribute to the local referral network and ensure access to quality health care.

Promote strategic purchasing for quality, efficiency, and cost-effectiveness

Strategic health purchasing links payments from pooled health funds to information on provider performance and population health needs. This includes adopting provider payment arrangements that provide patient-centered primary health care (PHC) and creating incentives for improving quality and efficiency in health service delivery. Immediate and transparent health technology assessment processes adopting cost-effective technologies will also be ensured and supported. PhilHealth aims to maintain an active risk pool through strategic purchasing. This will be attained by developing or enhancing benefit packages based on a transparent and explicit prioritysetting process, i.e., basic and essential primary care packages and enhanced existing in-patient benefit packages. Shifting to closeend and prospective payment methods, Diagnosis Related Groupings-based payment systems and from input-based to performance-based payments, will be pursued. PhilHealth aims to enhance contracting mechanisms of health care providers from individual to network contracting, strengthen quality assurance through health care provider monitoring, and strengthen claims utilization review.

Cost-effective and accessible payment schemes like digital cash will also be promoted. Integrating other health services and products like health insurance and e-consultations via digital platforms will also promote strategic health purchasing. These services, when provided, particularly in geographically isolated areas in Quezon and Rizal, will bring health services closer to the people.

Ensure financial risk protection

Pooling public funds while securing sustainable and equitable funding for health will streamline financing for the delivery of population- and individual-based health services. Shifting a portion of out-of-pocket to pooled health financing mechanisms that include social and private health insurance and government funds will maximize the redistributive capacity of pooled health funds. Similarly, awareness of social health insurance benefits and membership obligations will be enhanced, along with adopting transparent and fixed co-payment and co-insurance policies.

Implementation of the No Balance Billing will be monitored to ensure that beneficiaries receive the necessary assistance. In addition, PhilHealth will tie up with other agencies to develop more customized care packages targeting the most vulnerable groups.

Harness complementary private sector partnerships for healthcare access and delivery

The COVID-19 pandemic underscored the strengths and innovations, particularly in health technology in and of the private sector and other private individuals and volunteers. Such innovations were recognized during the Search for Outstanding COVID-19 Volunteers in 2020 and 2021.

Development partners and stakeholders will be tapped to provide additional funding to support health and nutrition services in the LGUs. LGU and local development council partnerships with civil society organizations will provide necessary support to create health and nutrition policies implement programs and projects. The food share program (FSP) of Kabisig ng Kalahi has been widely adopted in several LGUs in the region, including far-flung areas of Panukulan, Pitogo, Dolores, and Polillo in Quezon, and Lemery in Batangas, among others. The FSP aims to contribute to the goal of ending hunger and enhancing the nutrition status of families.

The use of telemedicine and hospital systems such as the One Hospital Command Center will be promoted, while a healthcare referral network linked with service providers, such as hospitals, quarantine facilities, and medical transportation, will also be boosted.

Establish integrated, innovative, and quality healthcare delivery systems

Integrated healthcare is a collaborative approach to patient care combining the physical, mental, behavioral, and financial aspects of healthcare. This will be realized by ensuring the accessibility of genderand culture-sensitive PHC across all life stages and different levels of care, providing integrated health packages, family planning, and adolescent health. Provincial and citywide health systems will also be increased to ensure the availability, accessibility, and affordability of safe, efficacious, and quality essential medicines and other needed health technologies.

Moreover, health interventions will prioritize geographically isolated and disadvantaged areas (GIDAs), marginalized populations, indigenous peoples communities, particularly in Lobo and San Nicolas in Batangas and Jomalig, Buenavista, San Francisco (Aurora), Patnanungan, Narciso, Panukulan, Burdeos, Mulanay, Tagkawayan, Macalelon, General Nakar, General Luna, Quezon, and Guinayangan in Quezon. Multi-sectoral collaborations with resolved payment mechanisms will be pursued to deliver telemedicine, capability support community healthcare for workers, remote healthcare services, and other innovations for health. In addition, emergency medical services, including paramedics, ambulances, and other patient transport services, will be provided to reach underserved and unserved areas. In collaboration with DOH, the Provincial Government of Cavite established the Botika on Wheels Project to provide basic medical supplies and other related items to its barangays. This can guide other LGUs in providing basic health services as well.

Outcome 4: Health systems strengthened

Increase government investments for health

Significant investments are necessary to ensure sustainable human and material resources, including facilities and infrastructures for health. Safety measures to ensure continuous and sustained LGU investments for health will be established in line with the increase in LGU allotment vis-à-vis the Mandanas-Garcia Ruling or Full Devolution. Considering the disparities among LGUs in terms of investments in health, equitable and targeted distribution of resources for health will be administered.

This includes the increase in the percentage of functional regional and local Epidemiology and Surveillance Units.

Grants and incentives such as shifting, performance-based, and similar schemes will help steer health spending, including improving the LGU capacity to deliver population- and individual-based health services and increasing accountability of local health systems.

Implementing the Special Health Fund will be supported to pool financial resources at the province and city levels and finance population and individual-based health services, health system operating costs, capital investments, remuneration of additional health workers, and incentives for all health workers in the region.

Enhance local capacity for health system leadership, management, anticipatory governance, and resilience to public health emergencies

The capacity and capability of LGUs for basic epidemiology, disease surveillance, and event-based surveillance will be enhanced to strengthen resilience to public health emergencies. In addition, health system structures and facilities that are able to quickly respond to diseases of public health concern and emergencies will be supported.

The LGUs will also roll out nationally funded health and social safety net programs and maintain the uninterrupted flow of essential personnel, goods, and services in their localities. Public service and business continuity planning will also be mainstreamed, incorporating the provision of employee health services to increase resilience to public health emergencies.

LGUs will prioritize activating and creating Local AIDS Councils to facilitate the prevention and control of HIV and AIDS. Local population offices, nutrition, disaster risk reduction, and management offices will be strengthened, and personnel will be capacitated.

Accelerate interoperable health information systems

The Philippine eHealth Strategic Framework and Plan will be implemented to enable an environment for the sector-wide application of digital technologies for health. Multisectoral engagements will be maximized for investments in physical technology and software platforms, services, and applications to support health information exchange.

RxBox units by the DOST Region IV-A were initially distributed to selected LGUs in the region, such as Lobo and San Nicolas in Batangas and Jomalig, Buenavista, San (Aurora), Patnanungan, Francisco Panukulan, Burdeos, Narciso, Mulanay, Tagkawayan, Macalelon, General Nakar, General Luna, Quezon, and Guinayangan in Quezon. It will be continuously provided to other underserved and unserved areas. RxBox device uses six built-in medical sensors, which include the cardiotocograph, fetal heart rate monitor, electrocardiogram, blood pressure monitor, pulse oximeter, and a temperature sensor allowing the diagnosis of the patient's health conditions in rural areas.

Strengthen health research for evidence-informed policy and selfsufficiency in health technology

Promoting institutionalization of decisionmaking based health on research. development, and innovation (RDI) will be a priority. The CALABARZON Regional Development Research Agenda 2018-2022 CALABARZON Information and Communications Technology Plan 2018-2022 will be updated to promote and identify key research and development areas for health, such as mental health, HIV, and emerging diseases, among others, for possible funding of the local and national government and other development partners.

State universities and colleges, and private entities will be tapped to provide necessary health-related technologies. St. Cabrini Medical Center in Batangas Province is the first hospital in the Philippines to use imageguided radiation therapy for cancer. They were also the first to institute new standards for radiation therapy treatment using volumetric modulated arc therapy and were recognized as a medical tourism center.

Legislative Agenda

Table 4.1.1 presents the region's priority legislative agenda to boost health.

Table 4.1.1 Legislative Agenda to Boost Health

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Amendment to the Magna Carta for Public Health Workers (RA 7305) and Barangay Health Workers' Benefits and Incontinuo Act (NA 7887)	The proposed amendment aims to standardize and provide competitive remuneration to HRH, ensure general welfare, retain talents, and attract competent HRH in public and private health facilities.	DOH
and Incentives Act (RA 7883)	Such amendments will help address the insufficient number of health workers and produce more competitive and skilled health workers in the Region.	
	Strategies will also include: a) establishment of Medical schools; b) scholarship programs with return services; c) revisit qualifications for medicine-related educators; and d) Balik Scientist Program.	
Trans Fat Elimination	The proposed measure will ban all forms of industrial trans fatty acids, prohibit the sale, manufacture, importation, and distribution of partially hydrogenated oils and oil and fats with high trans-fat acid content.	DOH, FDA, DOST, NNC
	The proposal will help reduce the risk of chronic diseases and premature mortality, and improve heart health in the Region in support to enable healthy choices and behavior.	
Establishment of a Medical Reserve Corps (Senate Bill No. 1180)	This bill will ensure preparedness to handle health emergencies and address the public's medical needs.	DOH
liouj	The proposed bill will respond to the need in rapid mobilization and deployment of health workers in the local level in times of regional or local emergencies.	
Establishment of Specialty Centers	This bill seeks to establish specialty centers to provide and improve access to specialized healthcare services, especially in remote, geographically isolated, and disadvantaged areas.	DOH
	This will address the challenge of limited access to health facilities, particularly in GIDAs.	
Creation of the Philippine Center for Disease Control and Prevention (CDC)	Key features of the proposed measure include: a. creation of the CDC under the DOH Office of the Secretary 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 e. ensuring investments better to equip the country in response to public health emergencies.	DOH
	This will enhance local capacity for health system leadership, management, anticipatory governance, and resilience to public health emergencies.	
Creation of the Virology and Vaccine Institute of the Philippines	The institute will be an attached agency of the DOST that will serve as the country's principal laboratory, providing virology laboratory investigations, research, and technical coordination of the entire network of virology laboratories across the country.	DOST
	This will address the need to strengthen health research for evidence-informed policy and self-sufficiency in health technology.	

Results Matrix

Table 4.1.2 presents the indicators and targets within the plan period to boost health.

Table 4.1.2 Results Matrix: Boost Health

INDICATOR	BASELINE (2021)	TARGETS						RESPONSIBLE AGENCY/		
		2023	2024	2025	2026	2027	2028	REPORTING ENTITY		
Average life expectancy increased (years)							•	'		
Male	71.18	increasing					DOH			
Fenale	77.25	increasing								
Treatment success rate	94%	increasing					DOH Infectious Disease Cluster			
Prevalence of stunting among children under 5 years of age decreased [%]	27.7% (2015)	decreasing					PSA, DOST-Food and Drug Authority (FNRI), NNC			
Poverty incidence decreased (%)	7.10%	decreasing					PSA			
Percentage of Filipinos with functional he	alth literacy incr	eased (%)								
Inadequate	80.99%	increasing					DOH Health Education and			
Adequate	19.01%	increasing					Promotion Section			
Percent of provinces with adequate bed-t	o-population rat	ios (1:1000)	increased l	standard r	atio)					
Cavite	0.56%	increasing increasing increasing increasing increasing				DOH Regulation Licensing				
Laguna	1.07%					and Enforcement Division				
Batangas	1.00%									
Rizal	0.57%									
Quezon	0.45%									
Lucena	2.43%	increasing								
Percent of provinces with adequate prima	ary care facilities	increased	(standard i	atio, categ	orized)					
Laguna	4%	increasing				DOH Regulation Licensing				
Quezon	2%			incre	asing			and Enforcement Division		
Percent of health facilities that have fund	tioning electroni	c medical r	ecord (EMR) systems a	and regularl	y submit d	ata increa	sed (%)		
(Hospitals) iHOMIS/HBSy	79.52%	increasing				DOH Knowledge				
(RHU) iClinicsys	16.58%			incre	asing			Management and Information Technology Unit		
Percentage of functional regional and local Epidemiology and Surveillance Units increased [%]	38%	increasing					DOH Regional Epidemiology and Surveillance Unit			

Subchapter 4.2 Improved Education and Lifelong Learning

Improved education and lifelong learning emphasize transformative learning by promoting and adopting new knowledge and skills to allow learners to thrive in society and in the world of work. This will help them realize their full potential by acquiring 21st century skills and readiness for the Fourth Industrial Revolution (FIRe). The focus will be on addressing the learning loss brought about by the impact of the COVID-19 pandemic and Taal Volcano eruption in the region by ensuring transformative, lifelong learning opportunities through 1) achieving quality, inclusive, adaptive, resilient, and future-ready basic education; 2) attaining globally competitive Technical-Vocational Education and Training (TVET) and higher education, and improving research output for a broader knowledge economy; and 3) improving governance for human capital development.

Assessment and Challenges

In the past six years, CALABARZON has consistently provided quality education to its populace by implementing various laws, such as Universal Access to Tertiary Education, K-to-12 programs, and Early Childhood Care Development.

However, the impact of the COVID-19 pandemic, the Taal Volcano eruption, and the occurrence of various typhoons in the region resulted in the non-achievement of the region's goal of accelerating and improving human development potential. Overall, the decline in the education sector's performance was due to the closure of schools during the implementation of community quarantine and class suspensions, the difficulty of learners adapting to the use of online and blended learning modalities, and financial and resource challenges.

Basic education

Improved enrollment of children in day care. The number of children ages three to four enrolled in daycare centers in 2021 slowly returned to its pre-pandemic performance, with 190,323 enrolled children. In addition, the number of children supervised under the early child development program increased from 212,343 in 2016 to 275,546 in 2019 but decreased in 2020 to 175,835.

Action plan on school participation of Indigenous Peoples (IPs) formulated. Through the CALABARZON Regional Committee on Quality Education for All, the region was able to develop an Action Plan to increase the school participation of IPs and address six identified IP learners' concerns based on the survey conducted by National Commission on Indigenous Peoples (NCIP) covering school year (SY) 2019-2020 to SY 2020-2021.

Moreover, in 2022, the DOST Region IV-A implemented the Community Empowerment through Science and Technology Program in conflict areas and in GIDAs, some of which have IPs as beneficiaries. Recent projects include the establishment and development of a native bee farm for Dumagats in Mauban, Quezon, and the establishment of a Science and Technology-Based Community Livelihood for Aetas in San Luis, Batangas. There are also proposed livelihood projects in Rizal that cover IPs as beneficiaries. Meanwhile, the Department of Information, Communication, and Technology (DICT) Region IV-A established Free WiFi for All hotspots for IP communities, conducted digital/internet media literacy capacitybuilding activity, and established technology for education, employment, entrepreneurs, and economic development centers.

Net enrollment rate at all levels declined. There was an improved enrollment rate in all levels from SY2016-2017 to SY2018-2019, except in kindergarten, which dropped

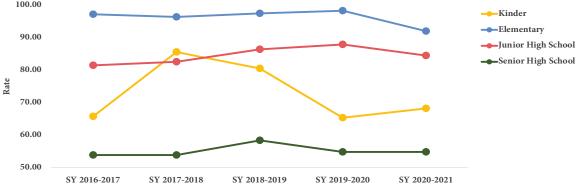
in SY2018-2019. But for SY2019-2020 and SY2020-2021, all levels experienced a decline in enrollment (Figure 4.2.1). Despite the CALABARZON decrease. recorded enrollment highest for SY2020-2021 nationwide, with about 3.9 million students, mainly due to students transferring from Metro Manila to the provinces. Consequently, the net enrollment rate decline in elementary and junior high schools resulted in an increased drop-out rate, declined completion rate, and lowered cohort survival rate (Figure 4.2.2).

Low level of learners' proficiency. Since 2016, the Department of Education (DepEd) Region IV-A has recorded low proficiency levels in Mathematics, Science, and English in the National Achievement Test (NAT) for Grades 3, 6, 10, and 12. The NAT is a standardized set of examinations students take to determine their academic levels, strengths, weaknesses, and knowledge learned in major subjects throughout the year.

Figure 4.2.1 Net Enrollment Rate in All Levels in Basic Education, CALABARZON, SY 2016-2017 to SY 2020-2021

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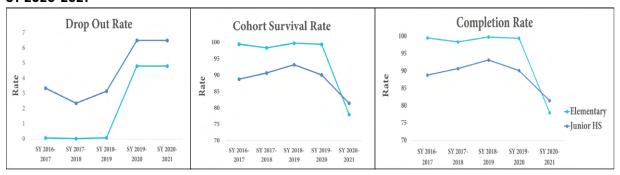
Kinder



Source: DepEd Region IV-A

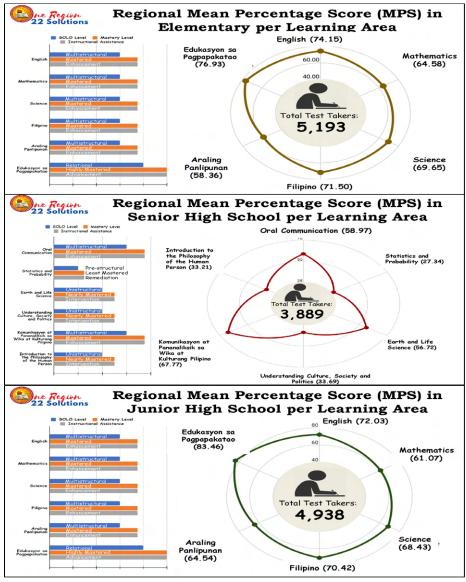
In SY 2019-2021, DepEd conducted midyear and year-end Learning Assurance for Monitoring and Progress (LAMP) instead of NAT. The LAMP is a survey that identifies a learner's full range of literacy, from basic reading and writing to the skills needed to participate fully in a learning society. Results of the SY2021-2022 LAMP also showed a low level of proficiency in the three major subjects, as shown in Figure 4.2.3.

Figure 4.2.2 School Participation of Elementary and Junior High School, CALABARZON, SY 2016-2017 to SY 2020-2021



Source: DepEd Region IV-A

Figure 4.2.3 LAMP Result for Elementary, Junior High School and Senior High School, CALABARZON, SY 2021-2022



Source: DepEd Region IV-A

Basic education issues and concerns. Based on the performance of the sector in the previous years, the following are concerns in basic education that should be addressed: a) poor reading comprehension and low performance of students; b) increased outof-school youth; c) lack of monitoring mechanism on the career path of graduates of senior high school (SHS); d) persistent malnutrition among children; e) insufficient access to education and equal opportunity to all due to digital connectivity gaps/technology concerns; f) limited space for expansion of government educational facilities; g) high ancillary tasks of teachers/reduced burden of work of teachers; and h) insufficient disaster resilience capability.

Higher education and technical and vocational education

Increased certification rate of Technical **Vocational Education and Training (TVET)** graduates. The region recorded a significant increase in the certification rate of TVET graduates from 88.40 percent in 2016 to 94 percent in 2021. The growth may be attributed to improved quality, provision of TVET programs, and increased enrollees and graduates of the Private Education Student Financial Assistance (PESFA) Program and Training for Work Scholarship Program (TWSP). The PESFA Program provides financial assistance to marginalized but deserving students in technical-vocational courses, while TWSP is a scholarship program that provides immediate interventions to produce the needed skilled and certified workers and fill up the unfilled jobs in key industry sectors in the country.

Increased faculty staff competence continued. Since 2016, there has been a continuous increase in faculty members in tertiary education with post-graduate degrees. Furthermore, in line with the national goal of

improving the competence of professors and instructors, faculty members of colleges and universities in the region continue to seek further studies.

Strengthened complementation between private and government education institutions. The region ensured for knowledge opportunities sharing between and among private higher education institutions (HEIs) and State Universities and Colleges (SUCs) through the RDC special committee - Regional Committee on Quality Education for All (RCQEFA). The Committee discusses education-related issues such as job-skills mismatch, on-the-job training, dual training system, and tracking system of graduates. It also serves as a venue to 1) disseminate information on national and regional policies to concerned regional and discuss local partners; 2) education problems/issues and recommend appropriate solutions; and 3) exchange good practices in implementing education programs, relevant programs, and projects on the various levels of education. Unlike other regions, CALABARZON has no RDC-endorsed priority courses. However, the region acknowledges the skills requirements of the five priority industries: metals, information technology, business process management, automotive, electronics, and petrochemical.

Decline in number of tertiary graduates with degrees in science, engineering, manufacturing, and construction. The region recorded a decline in the percentage of tertiary graduates with a science, engineering, manufacturing, and construction degree from 33 percent in 2016 to 18.15 percent in 2020. The decline can be attributed to enrollment of students in non-Science, Technology, Engineering, and Mathematics degree programs and the non-submission of enrollment data of some SUCs to the Commission on Higher Education (CHED).

Limited support on Research and Development, and Innovation. The HEIs in the region continuously pursue Research and Development (R&D) and establish innovation hubs. However, more private sector support for R&D investments and innovation adoption still needs to be provided.

Other higher education concerns. Other challenges in TVET and higher education that should be addressed are a) limited Local Universities and Colleges (LUCs) offering TVET courses; b) lack of database or monitoring mechanism on recognized or awarded individuals or groups from international competitions; c) insufficient linkage between academe and agriculture and fishery sector; d) lack of special education programs and projects; and e) insufficient access to education and equal opportunity to all.

Continuous increase in cases of learners with special needs in all levels. The pandemic heightened the need to increase support for learners with special needs by establishing special education (SPED) facilities using the LGU special education funds, and addressing disadvantaged learners' concerns in situations. Based on data from the National Council on Disability Affairs, CALABARZON has 38 public elementary SPED schools, 45 private SPED schools, and 11 public SPED high schools. Table 4.2.1 shows that Rizal has the least number of public elementary schools, Quezon has only two private SPED schools, and Batangas has no public SPED high schools. Additionally, no single higher education nor TVET SPED school is on record.

Table 4.2.1 Number of Special Education Schools in CALABARZON

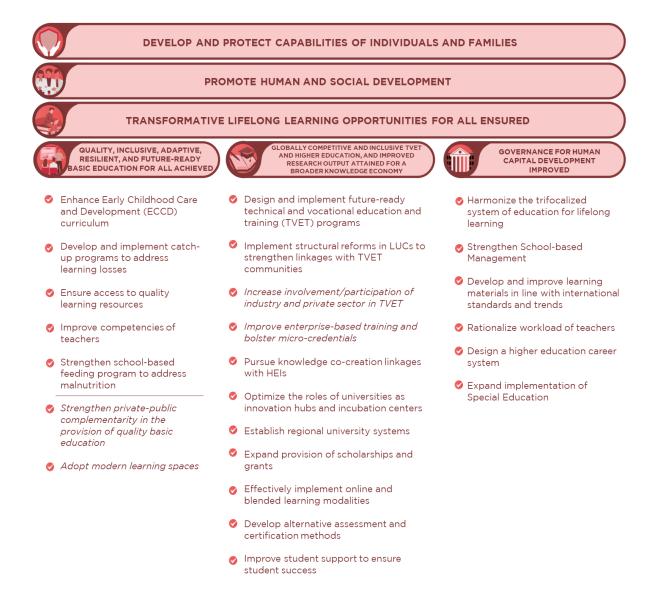
PROVINCE	PUBLIC ELEMENTARY	PRIVATE SPED	PUBLIC HIGH SCHOOL		
Cavite	6	13	1		
Laguna	10	11	1		
Batangas	9	13	-		
Rizal	4	6	2		
Quezon	9	2	7		
TOTAL	38	45	11		

Source: National Council on Disability Affairs Website (Retrieved March 2023)

Strategy Framework

A strong partnership between government and the private sector is needed to address the changes in the landscape of education, namely, teaching, learning process, assessment, instructional supervision, and other identified concerns in basic education, technical vocation, and tertiary education.

Figure 4.2.4 Strategy Framework to Improve Education and Lifelong Learning



Strategies

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

Enhance Early Childhood Care and Development (ECCD) curriculum

Implementing the ECCD programs will be improved by recalibrating the curriculum for preschool, emphasizing development for children zero to 4.11 years old on socioemotional and foundational skills. In addition, daycare centers will be established in every barangay to provide a conducive learning environment for preschoolers as mandated by Republic Act No. 6972 or the Barangay-Level Total Development and Protection of Children Act. The RDC supported the approval of the passage of House bills on the Magna Carta for daycare workers through Resolution No. IV-A-83-2022 to provide standard salaries, security of tenure, and capacity building to daycare workers and child development workers across LGUs to strengthen the implementation of ECCD. Moreover, the implementation of RA11908 or the Parent Effectiveness Service Program Act will be incorporated to provide and expand the knowledge and skills of parents on their duties and responsibilities in the areas of early childhood care and development, behavior management children, and educational role in the child's growth and development.

Develop and implement catch-up programs to address learning losses

Learning losses brought about by prolonged distance learning during the COVID-19 pandemic will be addressed by improving learners' proficiency in major subjects such as mathematics, science, and language and ensuring an increase in learners' school participation. To improve students' performance, DepEd Region IV-A will administer Early Language, Literacy, and

Numeracy Assessment for Grade 3 students, NAT to all learners in Grades 6, 10, and 12 including learners with special needs, and National Career Assessment Examination for Grade 9.

Meanwhile, to increase school participation, the DepEd Region IV-A will: a) recognize more and document private schools offering kindergarten programs; b) forge a partnership with LGUs' day-care centers and the Department of Social Welfare and Development (DSWD) to ensure that all fiveyear-old children are in school; c) improve strategy for mapping whereabouts of fiveyear-old children; d) establish new schools and new community learning centers; and e) promote learners' physical and emotional development such as health, hygiene and nutrition facilities, Water, Sanitation and Hygiene (WASH) in schools program, sports and psycho-social activities.

Moreover, the Alternative Learning System (ALS) will also be pursued to provide opportunities for Out of School Children (OOSC) and Out of School Youth (OSY) learners to develop basic and functional literacy skills and access equivalent pathways to complete basic education. DepEd Region IV-A will conduct literacy mapping, strengthen mechanisms for tracking the OOSC and OSY, implement an ALS service contracting scheme, and administer Accreditation & Equivalency Tests for certification for elementary and Junior High School completers.

The region will also be guided by the CALABARZON Regional Education Development Plan 2023-2028, which lays out the priority strategies in basic education delivery services, including recovery from the

learning losses brought about by the pandemic. The replication of Blue Rizal: *Baranggayan Para sa Bawat Bata Bumabasa* Program in all provinces in the region will be continuously supported by the RDC. The NCIP will provide scholarships, grants, and other financial assistance to IP students to ensure accessibility and availability of basic education services to vulnerable individuals or groups. At the same time, the RDC will continuously monitor the implementation of the CALABARZON Action Plan on School Participation of Indigenous Peoples.

Ensure access to quality learning resources

Various learning resources in printed and digital forms such as textbooks, e-books with embedded videos, audio, and even sign language translations and self-learning modules will be made available to students. The R4AQUBE or PIVOT 4A regional initiative will be strengthened, anchored on DepEd's Sulong Edukalidad, a national program that shifts to and focuses on quality basic education. DepEd Region IV-A will also: a) improve schools' capacity to deliver online learning; b) establish integrated schools in areas where access to Junior High School and SHS is difficult; c) provide reading and numeracy resource materials for all Stage 1 learners; and d) integrate digital education equipment, tools, and materials in all schools.

The improved access to learning resources will promote continuous learning despite class disruptions during emergencies. DepEd Region IV-A, in partnership with the LGUs, will protect learners from death, injury, and harm brought about by natural and humaninduced hazards by integrating disaster risk reduction (DRR), climate change, and peace in the curriculum. A supplementary learning resource on DRR will be developed to provide immediate learning continuity interventions.

Furthermore, resources will be inclusive, effective, culturally responsive, and gender sensitive. A communication and advocacy plan will be developed for programs addressing the concerns of learners in disadvantaged situations. Indigenous Peoples Rights Act (IPRA) will be institutionalized to align partnership mechanisms between the DepEd and IP communities.

Improve competencies of teachers

CALABARZON will pursue the teachers' preand in-service training through the DepEd IV-A's proposal to the concerned RDC Committee. Training will include capacitybuilding activities to implement remediation programs, management of learners at risk of dropping out, appropriate school health and nutrition standards, and professional development. Assessment skills for teachers will be expanded through school-based Learning Action Cell Continuing Professional Development programs. In addition, scholarship programs will be provided to encourage teachers to upgrade and improve their teaching skills. The National Educators' Academy of the Philippines in Malvar, Batangas will be utilized to maximize the opportunities to improve teacher competencies. At the same time, online platforms will be used to access training and advanced studies.

Partnerships among School Division Offices (SDOs), State and Local Universities and Colleges, and private HEIs will be expanded for the training of teachers. DepEd Region IV-A will continue to forge partnerships with academic institutions to further capacitate basic education teachers. It will also continue collaborating with the University of the Philippines Los Baños (UPLB) for relevant teacher training, resource materials utilization, and drafting of a position paper recommending the addition of two General Education subjects for teaching Reading in all Teachers' Education Programs.

The LGUs, spearheaded by the provincial government, will continue to support teachers' capacity-building initiatives, including procurement of equipment and provision of technical assistance.

Strengthen the school-based feeding program to address malnutrition

Malnutrition among children will be addressed through the conduct of school-based feeding programs, including those in Child Daycare Centers and Supervised Neighborhood Play in partnership with LGUs and the private sector. These include the *Gulayan sa Paaralan* and the FSP initiated by *Kabisig ng Kalahi*, Inc. The FSP is one of the programs conducted under the Adopt-a-Family (AAF) Activity of the region, which promotes private sector interventions to combat poverty and address needs at the household level. See Chapter 5.1 for further discussions on nutrition.

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

Complementation between the government and the private sector will be pursued through the amendment of the Expanded Government Assistance to Students and Teachers in Private Education Act (RA 8545) and the development and institutionalization of the public-private complementarity framework. The voucher system will be expanded to elementary students to provide them with options on which school to attend. DepEd Region IV-A will enhance the manual of regulations of private schools to clearly define "reasonable supervision" and provide organization and human resource support to personnel and learners in private schools.

Private investment in basic education will prevent overcrowding and stretching of the resources of public schools and will address concerns on limited space for expanding government educational facilities. DepEd Region IV-A will increase the participation of private schools in the Education Service Contracting scheme to decongest overcrowded public junior high schools. The RDC has endorsed the priority list of school buildings under the DepEd's Three-Year (CY 2023–2025) Comprehensive Plan for Basic Educational Facilities Fund in the region for LGU adoption, given the implementation of the Supreme Court ruling on the Mandanas-Garcia Case through Resolution No. IV-A-40-2022.

The region also supports the review of the Basic Education System, amending RA 10533 or the Enhanced Basic Education Act of 2013 to strengthen K to 12 program implementation. The curriculum will be reviewed by aligning all subjects with 21st century skills of problem-solving, information literacy, and critical thinking to ensure the employability of SHS. A tracer study for ALS learners and graduates of K to 12 programs will also be conducted to provide effective career guidance and to establish a monitoring mechanism for learners' career paths. See Chapter 6 for further discussion on tracer studies and the employability of graduates.

The RDC will support programs and projects of the LGUs promoting public-private collaborations, such as the Adopt-a-School Program of Cavite and Rizal Provinces.

Adopt modern learning spaces

Information and communication technology (ICT) will ensure learning continuity amidst possible disruptions. Learning spaces will be designed, configured, and equipped with upgraded and modernized ICT equipment, including improved internet capacity. The DICT Technology Empowerment for Education, Employment, Entrepreneurship, and Economic Development (Tech4Ed) program will be implemented in partnership

with the LGUs to serve as a conduit for the efficient delivery of government and other services and a potent tool for the empowerment and participation of the unserved and underserved communities in development. As of December 2022, DICT Region IV-A has established 527 Tech4ED in the region. The DICT Region IV-A also provides digital education for teachers, non-teaching staff, and learners to develop and strengthen competencies in Science, Technology, Engineering and Mathematics (STEM) education. In 2021, they provided a total of 1,007 sites in 2021 in the region with free internet access to assist teachers and learners in coping with digital education. See Chapter 13 for further discussions on education-related infrastructure developments.

In addition, DepEd Region IV-A will also implement standards to provide learners with

quality and inclusive learning environment. These include standards for integrating digital technology in teaching and learning and learning resource development. LGU programs and projects such as but not limited to the following will be supported by the RDC: 1) Cavite Province's free access to internet connection and construction of communication infrastructure to expand coverage and access to virtual connectivity; 2) Batangas Province's procurement and provision of computer software programs of Team Model HaBook Group, Artificial Intelligence Terminal software, and E-Learning Software; and 3) Rizal Province's expansion/improvement of ICT facilities. construction of communication towers, network, computer system, and data centers.

Outcome 2: Globally competitive and inclusive Technical-Vocational Education and Training (TVET) and higher education, and improved research output attained for a broader knowledge economy

Design and implement future-ready TVET programss

Future-ready TVET programs will be designed and implemented to prepare trainees for the world of work, FIRe, and the global knowledge economy. Ladderized education programs will be promoted in response to the demands of local and international industries and enterprises. The concerned RDC Committee will review and ensure the alignment of training and education curricula with current and emerging labor market trends in priority and strategic sectors of the region. See Chapter 6 for further discussion on TVET programs.

Technical Education and Skills Development Authority (TESDA) Region IV-A will continuously provide scholarships through the Training for Work Scholarship, Private Education Student Financial Assistance, Special Training for Employment Program, Universal Access to Quality **Tertiary** Education (RA 10931), Tulong Act Trabaho Scholarship Program, and Rice Competitiveness Enhancement Fund.

Implement structural reforms in LUCs to strengthen linkages with TVET communities

Partnerships with LGUs, particularly their LUCs, and polytechnic institutions will be promoted to deliver TVET programs

responsive to the needs of local communities and expand opportunities for adult learning. Community-based training will be promoted, especially in the Provinces of Batangas and Quezon, to increase access to the different skills and livelihood training of marginal groups such as IPs, drug dependents, rebel returnees, dependents of killed-in-action and wounded-in-action uniformed officers and soldiers, inmates and their families, beneficiaries of Executive Order No. 70 or institutionalizing the whole-of-government approach, persons with disabilities, senior citizens, victims of disasters and calamities, repatriated Overseas Filipino Workers, beneficiaries of Pantawid Pamilyang Pilipino Program and Comprehensive Agrarian Reform Program.

Increase involvement/participation of industry and private sector in TVET

Partnership with the industry sector will be strengthened to improve the design, implementation, development, and assessment of TVET programs to respond to the needs of the national and international labor markets. The institution-based training, which takes place in TVET institutions or schools and dedicated training centers, will be promoted in the Provinces of Laguna, Batangas, Rizal, and Quezon to increase the number of learners with TVET certification and ensure high certification ratings. This training includes on-the-job training for both formal and informal enterprises.

Moreover, the performance of the Supporting Innovation in the Philippine Technical and Vocational Education and Training System or SIPTVETS Project will be monitored. The SIPTVETS will create more robust engagement between the public TVET institutions and the industry sector to improve the TVET curriculum, training

facilities and equipment, and trainer competency. The CALABARZON Regional Training Center will be established in Batangas City and will focus on manufacturing technology, particularly mechatronics, to support the manufacturing sector.

Improve enterprise-based training and bolster micro-credentials

Enterprise-based training (EBT) will be expanded and promoted in the Provinces of Cavite, Laguna, Rizal, and Batangas to improve workforce employability, including dual training systems, apprenticeship, and learnership—and to strengthen RA 11230 or the *Tulong Trabaho* Act. Additionally, existing laws and guidelines will be reviewed to modify funding of training programs, from incentives to direct subsidies, and streamline EBT procedures. This will address the job mismatch between the skills and competencies of workers sought by employers and the skills/competencies of individuals in the labor market.

Pursue knowledge co-creation linkages with HEIs

Government-Industry-Academe collaboration and cooperation will be pursued in developing and implementing research and innovation projects and joint ventures, consultancy contracts, and supervisory-faculty exchange as knowledge co-creation. HEIs will be encouraged to participate in benchmarking, conferences, paper presentations, and activities with international partners. Academe-Industry Linkage (AIL) activities to address skills mismatch will be promoted, such as the conduct of Academe-Industry Dialogues in the five priority industries of CALABARZON namely: 1) metals; 2) information technology process and business management; automotive; 4) electronics; and 5) petrochemical, and will be expanded to the tourism and agriculture sector. Research and innovation collaborations among HEIs will be promoted through the Regional Research Development and Innovation Committee. Refer to Chapters 6 and 10 for further discussion on the Academe-Industry linkage and research and innovation.

In addition, the Batangas State University, through the Higher Education Institution Readiness for Innovation and Technopreneurship Regional Enablers for Ecosystem Development program, was awarded by the Philippine Council for Industry, Energy and Emerging Technology Research and Development to lead in establishing a Regional Startup Ecosystem Consortium in South Luzon that will create, set, and implement a Regional Startup Development Program for technology business incubators, startup enablers, and individual startups.

Optimize the roles of universities as innovation hubs and incubation centers

Technology adoption will be promoted, and innovation will be encouraged through science and technology in agriculture, industry, and services sectors. Linkage between research institutions and technology adopters will be strengthened. The connection with technology adopters will give students and aspiring researchers opportunities to receive startup support and ensure that research outputs are supported for patenting and commercialization within HEIs. State universities will be able to develop their niche in innovation and regional development by establishing innovation hubs and incubation centers. Among these are the: 1) Engineering Hub in Alangilan of Batangas State University, the National Engineering University; 2) Science, Technology, and Applied Research Center in Indang, Naic and Carmona of Cavite State University; 3) Sericulture Project in Siniloan of Laguna State Polytechnic University; 4) Agriculture Projects in Lucban of Southern Luzon State University; and 5) Agrobiotechnology Center in Tanay of the University of Rizal System. Refer to Chapter 10 for further discussion on research and innovation.

Establish regional university systems

Compliance of private HEIs and SUCs on the adherence of programs to the policies, guidelines, and standards set by CHED per Memorandum No. 17, series of 2022 and to regional/global standards and qualification systems will be monitored to ensure efficient delivery of high-standard and complementary services between and among public and private HEIs. This includes monitoring HEIs and programs certified as Centers of Excellence and Centers of Development and Grant of Institutional Recognition to LUCs per CHED Memorandum No. 18, series of 2022 and RA 7160 or the Local Government Code of 1991.

The RDC or its concerned Committee will serve as a venue for collaboration and possible partnerships among HEIs and SUCs on research and other initiatives.

Expand provision of scholarships and grants

Scholarships and grants will be continued and expanded to support learners' education. This also aims to increase government spending on grants related to access to education. LGU scholarships will be promoted regardless of school location, educational subsidies will be pursued not only during calamities and health emergencies, and free education in tertiary level, including miscellaneous fees such as related learning experience required for nursing and medical-related students will be strengthened in line with the implementation

of RA 10931. Aside from CHED, other national agencies are providing scholarships and grants to deserving students, such as the: 1) DOST for those pursuing education in the fields of science, technology, engineering, and mathematics; 2) Landbank of the Philippines' Fisheries Scholarship Program for incoming college students who are interested in the field of Fisheries and or Agriculture-related courses; 3) Overseas Workers Welfare scholarship Administration (OWWA) programs for qualified dependents of Overseas Filipino Workers (OFWs); and 4) DOH medical scholarship which aims to increase deployment of physicians and other health care professionals to the GIDAs.

The private sector will also continue to provide scholarships and grants through their Corporate Social Responsibility programs. Some of the currently offered scholarships in the region are from 1) the Aboitiz Foundation for those pursuing degrees in STEM subjects or business-related fields; 2) the BPI Foundation for next of kin of the medical frontliners who passed away or were infected by the coronavirus; 3) Gokongwei Brothers Foundation and Universal Robina Corporation (URC) for those from lowincome households who have demonstrated outstanding academic achievements; this will enable them to work at URC facilities after graduation. Priority candidates will come from Batangas, Cavite, Laguna, Pampanga, Quezon, Rizal, and Tarlac; and 4) Ayala Foundation, which assists Grepalife personnel as well as the children of sales colleagues in their educational pursuits, and Filipino teenagers from low-income households and members of ethnic minorities.

Effectively implement online and blended learning modalities

The use of online and mixed learning modalities in higher education will be continued to promote learning continuity amidst possible future disruptions based on CHED Memorandum Nos. 4 and 6, series of 2022. This includes online video-sharing platforms, learning management systems, digital learning tools, and mobile science learning facilities. The development and implementation of massive open online courses will be promoted as an alternative mode of learning for students who have difficulty accessing traditional education.

Develop alternative assessment and certification methods

Aside from monitoring licensure examination passing rate, alternative assessment and certification procedures will also be monitored and institutionalized to evaluate student performance, identify skill gaps, and validate learned skills even in a distance learning setup. This will allow for validation of the quality of education within national and international standards. Among these are the monitoring of professionals recognized internationally and in the Association of Southeast Asian Nations (ASEAN) community by the Professional Regulation Commission accreditation (PRC), CHED program offerings and monitoring of graduates from Expanded Tertiary Education Equivalency and Accreditation Program, the DOST Region IV-A Youth Excellence in Science (YES) awardees, and recognition of achievements of young Filipinos in international STEM competitions.

Improve student support to ensure student success

Student affairs and services programs will be strengthened to ensure a peaceful, safe, secure, and healthy learning environment. This includes constructing and improving school facilities such as classrooms, libraries, dormitories, and student centers, and updating student handbooks to ensure gender-responsiveness of education materials

and facilities. Moreover, Laguna Province will promote Youth Entrepreneurship Program. The role of youth in nation-building and regional policy and development planning will be recognized as mandated by RA 10742 or the Sangguniang Kabataan Reform Act through the inclusion of youth organizations

such as the National Union of Students of the Philippines (NUSP) – Southern Tagalog in the concerned RDC Committee. The NUSP is the largest and most comprehensive nationwide alliance of student councils/governments/ unions committed to advancing the students' democratic rights and welfare.

Outcome 3: Governance for human capital development improved

Harmonize the trifocalized system of education for lifelong learning

Processes and systems in all levels of education will be harmonized to promote better career pathing for students. This entails coordination and harmonization among other pillars of the human capital development sector such as the DOST, PRC, DICT, Department of Labor and Employment, Department of Trade and Industry, Department of Migrant Workers, and Department of Agriculture. This will ensure students' readiness for in-demand job opportunities locally and abroad. Partnerships with local and international institutions will be promoted to pursue professional development and career development support. Furthermore, the DepEd, TESDA, and CHED will establish a database of schools and individual names of learners recognized or awarded in international competitions. The provision of LGU incentives, allowance, and assistance to students taking agriculture and fishery courses will also be promoted to increase the sector workforce. See Chapter 6 for further discussion on education and employment linkage.

Strengthen school-based management

School-based management will be promoted to decentralize the decision-making from

national to regional and individual schools to enable them to better respond to their specific educational needs. It empowers and deepens the linkage between the school and the community. This also supports the implementation of Full Devolution and addresses the concern on the shortage and expansion of education infrastructure. In addition, programs and projects will be implemented to ensure learners', teachers', and education facilities' resilience against the impacts of natural and human-induced hazards. DepEd Region IV-A will establish risk reduction options and strategies for the school environment and facilities, increase agencies' regular budget on DRR management, climate change adaptation and mitigation, and education in emergencies. The provinces of Laguna, Batangas, Rizal, and Quezon will also support government and private education facilities exposed to flood hazards, landslides, storm surges, tsunamis, and liquefaction through the conduct of Disaster Risk Reduction Management (DRRM) awareness campaign, school building upgrading, and of climate-proofed school construction buildings.

The Province of Batangas will support teachers and non-teaching personnel through payments of compensation/allowances under the Department of Budget and Management (DBM)-DILG-DepEd Joint Circular No. 1, series of 2017, particularly in Batangas Province Science High School and Batangas

Province High School for Culture and Arts. Rizal Province will provide support through Personnel Recruitment Program, and Quezon Province will conduct training/orientation on establishing schools based on DepEd Order No. 40, series of 2014 and Philippine Professional Standards for Teachers Orientation focusing on strengthening school and community linkages for resource mobilization.

Develop and improve learning materials in line with international standards and trends

Learning materials will be continuously updated and improved based on recent international education frameworks and standards trends. Apart from technical skills acquired through formal education and training, learners will be supported in the development of soft skills in accordance with the 21st Century competencies such as critical thinking, problem-solving, creativity and imagination, self-direction, initiative, collaboration, and teamwork. Implementing RA 11927 or the Digital Workforce Competitiveness Act will be incorporated, ensuring that students and workers have access to and are provided with skills and competencies in digital content, platforms, and technology, and will encourage digital innovations and entrepreneurship. establishment of art academies and schools implementing special programs in arts and the implementation of RA 11915 or the National Music Competitions for Young Artists Program Act will be incorporated, which promotes high standards of excellence in Philippine National Youth Development Program for Music through participation in various music competitions and festivals.

Rationalize workload of teachers

The teachers' workload will be reviewed to enable them to focus on teaching rather than

on preparing routine reports, performing administrative tasks, and being utilized by other agencies for program implementation as frontline government personnel. Teachers will focus more on addressing the learning losses, coping with the new pedagogical practices, and enhancing their competencies through participation in capacity-building interventions following international standards. The human resources complement of schools and other educational institutions will be restructured (i.e., hiring more administrative and non-teaching staff) to ensure effective and efficient service delivery without putting undue burden on teachers. Moreover, the participation of teachers in extra-curricular activities will be limited to reduce the disruption of classes per DepEd Office of the Assistant Secretary for Governance Operation and Field Memorandum No. 2022-058. This is in response to various requests for permission and invitations by LGUs, other government agencies, external partners, and other stakeholders on learners' participation in extra-curricular activities, which hamper learning recovery measures.

Design a higher education career system

The establishment of special education facilities and implementation of related programs and projects by the DSWD Region IV-A, DepEd Region IV-A, TESDA Region IV-A, CHED Region IV-A, and LGUs will be pursued at all levels. Furthermore, the LGU special education fund (SEF) will be monitored to ensure that it addresses concerns of the vulnerable sector, such as children with disabilities and indigenous peoples. The DepEd Region IV-A will promote efficient and effective utilization of the SEF and ensure that an inclusive stakeholder engagement mechanism is in place. Meanwhile, Cavite Province will establish facilities for special children.

Legislative Agenda

Table 4.2.2 presents the region's priority legislative agenda to improve education and lifelong learning.

Table 4.2.2 Legislative Agenda to Improve Education and Lifelong Learning

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Amendment of Enhanced Basic	The bill aims to review the K to 12 program curriculum and implementation.	DepEd
Education Act of 2013	The region will benefit from the bill through the alignment of the curriculum with the recommended 21st-century skills such as problem-solving, information literacy, and critical thinking to ensure the employability of the region's SHS graduates and increase their acceptability to appropriate industries.	
Amendment of Expanded Government Assistance to Students and Teachers in Private Education Act	The bill recognizes the complementation of government and private schools in providing basic education through expanding government assistance to high school students and teachers in private education.	DepEd
Education Act	The region supports the expansion of the application of government assistance to students, teachers, and schools in the private basic education to include: a) students in private schools from kindergarten to senior high school in the voucher system; and b) expand the Teacher Salary subsidy to teachers employed in private elementary schools.	
Magna Carta for Day Care Workers (DCWs) Child Development Workers (CDWs)	The bill provides standard salaries and security of tenure to DCWs and CDWs in all local government units. It aims to employ at least one DCW I and II plantilla position with salary grades 6 and 8 in all daycare centers nationwide.	DSWD
	The region supports immediate approval of pending bills on the Magna Carta for CDWs to provide standard benefits and privileges such as training, education, career enhancement, and security of tenure. This strengthens the implementation of ECCD.	
Agripreneurs Scholarship Program Act	The bill promotes education in the agriculture and fishery sector. It encourages more students to study agriculture, forestry, and fisheries degree programs. The region proposes the inclusion of provision of LGU incentives, allowance, and assistance to students taking agriculture and fishery courses to increase the sector workforce.	Department of Agriculture (DA)
Local ordinances that support region	nal RDP priorities:	
Grant of monetary support to qualified/deserving students competing in academic competitions	It aims to provide support and incentive to promote global competitiveness.	Cavite Province
Ordinance supporting financial assistance to the discounting teachers and students	Promotes the provision of financial assistance to students and teachers to improve access to quality education and decongest public schools.	Quezon Province

Results Matrix

Table 4.2.3 presents the indicators and targets within the plan period to improve education and lifelong learning.

Table 4.2.3 Results Matrix: Improved Education and Lifelong Learning

INDICATOR	BASELINE			TAR	RESPONSIBLE AGENCY/				
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY	
Completion Rate									
Elementary	78.00%	increasing				increasing DepEd			
Secondary (Junior High)	81.50%	increasing					DepEd		
Secondary (Senior High)	64.20%	increasing					DepEd		
TVET certification rate	94%		increasing					TESDA	

Subchapter 4.3 Establish Livable Communities

By building previous plan's on the success, gains, and remaining gaps, CALABARZON will establish inclusive, safe, resilient, and sustainable communities by 2028. This will be achieved by strategies and priority programs, projects, and legislative agendas addressing urban development's key issues and challenges.

Interventions will be geared towards promoting the social environment, improving environmental quality, and building climate-smart and disaster-resilient built environments. This will be supported by advancing responsive governance, focusing on enhancing technical capacities and capabilities for risk assessment and planning at the sub-national level.

Assessment and Challenges

Assessment

CALABARZON remains the most populous region, with more than 16 million people accounting for about 14.85 percent of the Philippine population. With an annual growth rate of 2.48 percent between 2015 and 2020, the region's population is expected to double in 2048. To accommodate the expected population increase, the region must ensure inclusive, safe, resilient, and sustainable communities. To this end, the following were the accomplishments and remaining gaps from 2017 to 2022.

LGU compliance with RA No. 9003 and increase in waste diversion rate. From 16 percent in 2016, the LGUs' compliance rate with R.A. No. 9003 or the Ecological Solid Waste Management Act of 2000, which includes figures on approved 10-year Solid Waste Management Plan, established materials recovery facilities and closed open dumpsites, increased to 73 percent in 2021. Meanwhile, the solid waste diversion rate

slightly increased from 46 percent in 2016 to 51 percent in 2021.

Sub-Committee Reactivation of on Housing. The region reactivated the Sub-Committee on Housing (SCH) in 2021 after being inactive for more than ten years to ensure the effectiveness of housing development. The SCH is tasked to coordinate formulation of regional housing development objectives and to monitor, review, and evaluate the implementation of banner programs and projects of key shelter agencies.

Continuation of technical assistance in plan formulation. The Department of Human Settlements and Urban Development (DHSUD) Region IV-A provided technical assistance in formulating Local Shelter Plans (LSPs) for 72 LGUs in the region. This contributed to the approval of 73 LSPs, or 51 percent of the 142 LGUs in the region, as of December 2022. The LGU LSP serves as a reference document on the current housing

situation and requirements at the local level, along with LGU's' available resources and appropriate shelter strategies and implementation plans to address the housing needs. In 2021, only 38 LGUs were provided with technical assistance in preparing their Comprehensive Land Use Plans (CLUPs). This number is below the 67 LGUs assisted in 2019, before the pandemic.

Promotion of Beat90 Campaign. As reported by DHSUD Region IV-A, the number of updated CLUPs remained low at 63 or around 44 percent of the 142 LGUs in the region as of October 2022. In response, DHSUD Region IV-A implemented its Beat90 campaign to fast-track the Provincial Land Use Committees' review and approval of CLUPs or Zoning Ordinances (ZO) within the three-month (90-day) period. The CALABARZON RDC later endorsed the campaign.

Challenges

Poor health, education, safe drinking water, and basic sanitation facilities and services. For health, only one Rural Health Unit/Urban Health Center was established out of the 24 target units between 2018 and 2020. In addition, the hospital bed-to-population ratio remains high at 1:1,299 as of 2020. The ratio is still expected to increase with the closure of some health facilities due to the COVID-19 pandemic.

In terms of education, the target classroom-to-pupil ratios in elementary and secondary levels were not achieved in SY 2021-2022 due to an overwhelming enrollment increase of 8.16 percent in public schools. The significant increase was due to the volume of learners from private schools who transferred to public schools.

Meanwhile, the percentage of households with access to safe water supply fluctuated as it peaked at 95 percent in 2017 and declined to 91 percent in 2018 and 50 percent in

2020. Similarly, the proportion of households with access to basic sanitation to the total number of households improved from 65 percent in 2016 to 82 percent in 2018 before it declined to 55 percent between 2019 and 2020. The region's performance in households with access to safe water supply and basic sanitation may be attributed to increasing water demand and waste generation due to the region's growing population.

Lack of secured housing. The housing subsector was adversely affected by disasters such as the Taal Volcano Eruption and Typhoons Quinta, Rolly, and Ulysses in 2020. For Taal Volcano eruption alone, the value of damages to housing in the provinces of Batangas and Cavite reached PHP2.7 billion. Meanwhile, housing demand continues to increase with the increasing population in the region. The COVID-19 pandemic further highlighted the need for safe and affordable houses.

Unreliable air quality monitoring instruments. Of the five air quality monitoring stations in urban areas in the region, only the ones in Antipolo City, Rizal, and Biñan City, Laguna recorded ambient air quality within the 25 µg/NCM standard between 2018 and 2021. The monitoring station in Santa Rosa City, Laguna recorded ambient air quality above the 25 µg/NCM standard between 2017 and 2018, while incomplete or no reading was recorded from 2019 to 2021. Meanwhile, the station in Indang, Cavite, was either inactive or under repair from 2017 to 2021, while operation and maintenance of the station in Calaca City, Batangas, will be outsourced.

Failure to meet Class C and SB standards in water quality of major water bodies. The region's priority river systems and monitoring stations along Manila Bay and major recreational water bodies were unable to meet the Class C and Class SB standards, respectively, from 2018 to 2021

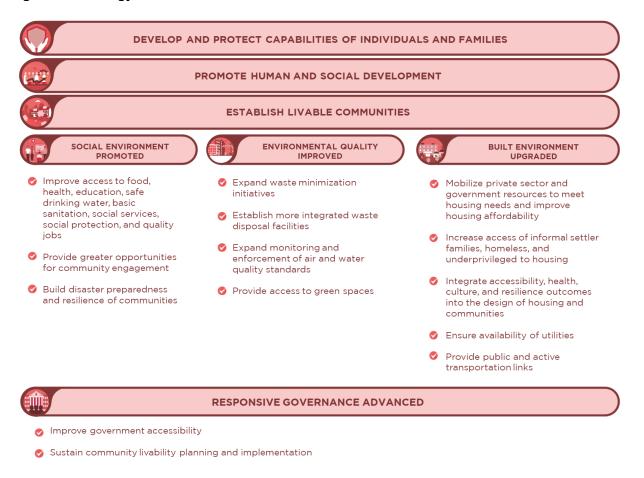
due to low dissolved oxygen, exceedance in total suspended solids, high biochemical oxygen demand (BOD), chloride, ammonia, and phosphate and very high fecal coliform content. Meanwhile, the BOD level in Laguna Lake remained well within the standard of less than seven mg/L from 2017 to 2021.

Need to establish accurate and updated data on housing. The need for accurate and updated data on housing is a fundamental issue that needs to be resolved immediately to estimate housing needs better, improve the targeting and profiling of beneficiaries, and monitor the accomplishments in the housing sector.

Strategy Framework

The region aims to upgrade and plan human settlements to offer equitable, inclusive, and resilient opportunities for improving human well-being while contributing to the community's economic vitality. The livability of communities shall be pursued along three outcomes: social environment promoted, environmental quality improved, and the built environment upgraded—guided by the principles of equity, inclusivity, resilience, and sustainability. All three outcomes will be supported by a governance system that is accessible and ensures that the livability of communities is sustained.

Figure 4.3.1 Strategy Framework to Establish Livable Communities



Strategies

Outcome 1: Social environment promoted

Improve access to food, health, education, safe drinking water, basic sanitation, social services, social protection, and quality jobs

The region will improve access to food, health, education, social services, and social protection to ensure the availability of fundamental human necessities. Regional investment programs will also ensure co-benefits of quality job creation. Job creation will be complemented with programs to improve entrepreneurship skills and increase employability for business or employment opportunities in agriculture and agribusiness, industries, services, and sustainable resourcebased livelihoods (see Sub-Chapters 4.1 and 4.2, Chapters 5 and 6).

Provide greater opportunities for community engagement

Increasing community participation in civic, cultural, social, recreational, and sports activities will be supported by establishing participatory, inclusive, needsand based approaches to advance community engagement. This strategy includes strengthening the local culture and arts, and sports councils to ensure more responsive programs through capacity development activities, regional culture summits, and collaboration initiatives among cultural and arts local champions, and community-driven sporting grassroots programs. In addition, regional physical and virtual cultural spaces will be developed. Inclusion of communitybased organizations (women, IPs, Youth, Persons with Disabilities (PWDs), among others) in local/barangay decision-making bodies will be encouraged to increase the community's trust and confidence in the decision-making process.

Build disaster preparedness and resilience of communities

The government will target the most climate-vulnerable areas (See Chapter 2), individuals, families, and enterprises to raise awareness and enhance knowledge and skills to help them adapt better and become more resilient to multiple risks and hazards (e.g., hydro-meteorological, geological, human-induced, and public health emergencies). To build disaster preparedness and resilience of communities, specific interventions on disaster risk management will be accelerated by:

- Providing technical assistance to capacitate community members to be prepared and to take action to protect lives, livelihood, and assets from multiple types of disasters;
- Putting in place risk-enhanced early warning systems, preemptive evacuation protocols, and permanent evacuation centers;
- Building partnerships with community volunteers, researchers, and practitioners to advance community capacity as frontliners in disaster response, especially for vulnerable groups and those located in far-flung areas; and
- Ensuring transparency of and accountability for community-led resilient actions

The government will also prioritize highly vulnerable, low-income LGUs to access climate and disaster finance from both international (e.g., Green Climate Fund and bilateral support) and domestic funding facilities (e.g., People's Survival Fund,

National/Local Disaster Risk Reduction and Management (N/LDRRM Fund)) that will mobilize more capital flow towards disaster risk reduction and climate change adaptation (see Chapter 16). In addition, public-private partnerships will be strengthened to meet financing needs while enabling a supportive regulatory framework by engaging with public and private financial institutions to improve LGUs' understanding of private financing instruments and innovative funding solutions.

Outcome 2: Environmental quality improved

Expand waste minimization initiatives

Regional compliance with RA 9003 will be improved by closely working with the remaining non-compliant LGUs to minimize waste. Since CALABARZON is an industrialized region, this strategy will target ecozones, especially industrial parks to modernize and innovate waste recycling, upcycling, and recovery solutions. These include urban mining as a waste recovery technique for rare metals from electrical and electronic equipment waste. The Department of Environment and Natural Resources-Environmental Management Bureau (DENR-EMB) Region IV-A will intensify information and education campaigns and technical assistance in collaboration with the LGUs, educational institutions, and industries. Technical assistance to LGUs may include formulating solid waste management plans, identifying, establishing, operating, maintaining solid waste technologies and facilities, and identifying possible revenuegenerating schemes to sustain solid waste management facilities, among others.

In addition, innovation, R&D, and technology development in waste management will be promoted. This may include studying the viability and applicability of waste-to-energy technologies applied by the University of the Philippines - Los Baños in other provinces to reduce waste and contribute to energy security in the region.

Sustainable consumption and production towards a circular economy will also be supported by promoting positive behavioral change and sustainable lifestyles and practices. With the DENR-EMB Region IV-A as the lead, the region will focus on implementing the Extended Producer Responsibility (EPR) Act of 2022 to ensure that EPR programs of large enterprises will incorporate waste minimization strategies in redesigning adopting production product packaging, refilling systems, and using alternative materials in products. In addition. producers' compliance with cutting plastic waste footprints will be supported with the provision of technical assistance to both regulators and implementers to ensure that the region leads its enforcement.

Establish more integrated waste disposal facilities

The DENR-EMB Region IV-A, in partnership with the LGUs in the region, will continue to close and rehabilitate the remaining nine dumpsites in the Provinces of Cavite (1), Laguna (1), and Quezon (7) and promote alternative and integrated waste disposal facilities/systems/technologies that be operated in partnership with private enterprises. In addition, LGUs will improve the delivery of waste management services by promoting the clustering of sanitary landfills and solid waste management technologies to address the large capital requirement and allow low-income LGUs to pool resources to establish such facilities.

To support this, the government, through the DENR-EMB Region IV-A and the DILG Region IV-A, will continue to build the capacity of LGUs through training and technology transfer, provision of appropriate guidelines and implementation mechanisms, among others.

Expand monitoring and enforcement of air and water quality standards

Water Quality

The region, through all the mandated government agencies, Government-owned and controlled corporation (GOCCs), and LGUs under the Clean Water Act of 2004, Code on Sanitation of the Philippines, and the Provincial Water Utilities Act of 1973, among others, will continue to perform their respective functions, duties, responsibilities to control water pollution and improve the water quality of all water bodies in the region. Special attention will be given to the region's major water bodies such as Laguna Lake, Manila Bay, recreational beaches (Laiya, Nasugbu, Matabungkay, and Lemery), and priority river systems (Imus River, Ylang-Ylang River, Rio Grande River, Cañas River, Maragondon River, Labac River, Timalan River, and Obispo River in Cavite; Calumpang River and Pansipit River in Batangas; and Iyam-Dumacaa River in Quezon).

The DENR-EMB Region IV-A will reinforce, operationalize, and establish more water quality management areas (WQMAs) in the region by mobilizing funding, strengthening governance/institutional capabilities, and supporting multi-stakeholder initiatives and inter-LGU collaboration to rehabilitate river networks and other aquatic ecosystems. These include the implementation of high-impact projects such as waste treatment, disposal, resettlement, and other infrastructure

projects to improve water quality. River armies in LGUs will be formed or revitalized to conduct locally-initiated river and coastal clean-ups regularly. LGUs will also strictly enforce the easement of structures in lakes, rivers, and coastal areas. Relatedly, informal settlers, especially those along water bodies, will be surveyed and relocated to sustainable resettlement sites.

DENR-EMB Region IV-A will also monitor compliance of establishments, industries, wastewater treatment plants, and facilities, including hospitals and other health care facilities generating wastewater within the region, with the implementation of stringent wastewater management procedures by installing and ensuring efficient operation of a disinfectant system at the last stage of the wastewater treatment process before discharge to any water body.

A study on the maximum carrying capacity of major lakes in the region (e.g., Laguna Lake, Taal Lake, Seven Lakes of San Pablo City) may also be conducted to determine the appropriate and allowable economic activities in these areas.

The region will adopt the integrated water resource management approach to address water pollution. In addition, the Regional Water Pollution Control Master Plan should be crafted to integrate and harmonize all water pollution control strategies and existing environmental laws.

Air Quality

The region will establish and maintain modern and more reliable ambient air quality monitoring systems, especially in major urban centers, to address the longstanding problem of air quality monitoring. There are only five air quality monitoring stations in the region and these are found in Antipolo

City in Rizal, Biñan City and Santa Rosa City in Laguna, Calaca City in Batangas, and Indang in Cavite. Only three (Antipolo City, Biñan City, and Santa Rosa City) of these stations are operational based on the DENR Region IV-A's 2021 ENR Information and Statistics. DENR-EMB Region IV-A may collaborate with private stakeholders and high-income cities and municipalities to set up ambient air monitoring stations to expand coverage and increase the reliability of monitoring. Mobile air samplers may be deployed in strategic areas in the region to capture sufficient air quality data.

Through DENR-EMB Region IV-A, the region will regularly monitor industries, particularly those with high potential for air pollution, ensure that they conform to air quality standards, and enforce necessary sanctions for violators, if necessary.

Promoting environmentally sustainable transport, including an efficient mass transport system and clean fuels, will be supported. Anti-smoke belching campaigns will be strengthened, and vehicle emission testing will be expanded by increasing the number of personnel and the quality and quantity of necessary equipment/facilities. Establishing more government-owned motor vehicle inspection centers and regularly monitoring private emission testing centers will also be pursued.

The region will pursue R&D for clean technologies and increase investment and adoption of green technologies in collaboration with the private sector.

As indoor air and noise pollution aggravate poor health and low productivity, the government, in partnership with the private sector, will also enhance enabling regulatory conditions to ensure healthy levels of environmental noise and indoor air quality at home and in the workplace.

Provide access to green spaces

Priority will be given to interventions transforming open spaces into green spaces to scale up green infrastructures. These include retrofitting and establishing green roofs and walls, introducing slope stabilization measures, and reducing greenhouse gas emission. Investments in the region will prioritize contributing to a livable and greener urban landscape that will promote biodiversity, reduce urban heat, improve the state of the environment, and improve public health, socioeconomic conditions, and overall well-being. Research institutions and technical experts will be supported to work with LGUs to provide science and evidencebased spatial analysis on urban development and integrate them into their respective local land use and development plans.

Outcome 3: Built environment upgraded

Mobilize private sector and government resources to meet housing needs and improve housing affordability

With DHSUD Region IV-A leading the Shelter Cluster, the region will support efforts to address the housing deficit. DHSUD Region IV-A will roll out its priority program, the *Pambansang Pabahay Para sa*

Pilipino (4PH) Program. The 4PH provides a collaboration platform among national and local governments, government financing institutions (GFI), and the private banking sector to ensure dedicated portfolios and low-cost and accessible financing solutions for the housing sector. The program also facilitates fiscal incentives to unlock more private-sector finance in socialized housing.

Initially, the DHSUD Region IV-A engages with the prospective partner LGUs in CALABAZON through an information drive and orientation sessions to eventually seal a memorandum of understanding to execute and implement measures to bridge the housing gaps in their respective jurisdictions.

In addition, the region will strengthen primary and further develop secondary mortgage markets through the key shelter agencies. The competitive interest rate of the Affordable Housing Loan Program and End-user Financing Program of the Home Development Mutual Fund (HDMF) must be sustained to improve the access of members to housing loan take-outs. On the other hand, the secondary mortgage programs the National Home Mortgage Finance Corporation (NHMFC) must be further developed in terms of expanding access and coverage through continued marketing of NHMFC housing programs to originators and their buyers and creating a partnership other financial institutions like local cooperatives, rural banks, and governments, among others.

DHSUD Region IV-A will also employ more technical assistance to enhance LGUs' capacity to venture into different blended financing options such as bond flotation and credit financing. The region will steer the necessary supporting mechanisms to deliver the housing targets, such as facilitating the availability of appropriate and suitable land, construction materials, and workers, including developing a human resources skills program to meet housing production needs.

The improvement and expansion of housing finance programs will be coupled with increasing families' capacity to pay. Strengthening partnerships among stakeholders will help fast-track the implementation of housing projects as

it eases the delays in releasing funds and documentary requirements, and improves compliance with balanced housing development. The government will harness the services of volunteers in delivering basic social services.

Increase access of informal settler families, homeless, and underprivileged to housing

Through DHSUD Region IV-A, the region will establish an integrated database system for the housing sector, including proximity to essential socioeconomic services and infrastructure development to enhance its decision support system. Regional offices and decision-makers will collaborate with the national government to regularly inventory ISFs, homeless families, and idle and undeveloped government lands. They will also regularly consult key housing sector actors to consider varying needs and solutions in urban planning and investment programming.

The region will adopt viable land acquisition approaches. Using government-owned idle land is one of the government's initiatives to increase available land for socialized housing. The region also encourages land banking, which refers to the acquisition of land at values based on existing use in advance of the need to address the availability of land in urban areas in support of the in-city resettlement approach. Land banking, however, should not be used to convert prime agricultural land for settlement expansion as the region supports the restriction on using prime agricultural land for subdivision projects. Further, the region will adhere to the RPFP-prescribed settlement expansion areas (See Chapter 2).

The operationalization of the National Resettlement Policy Framework in local resettlement plans and programs will be supported to ensure that resettlement communities are livable. The region will encourage improving and expanding housing finance programs like the Community Mortgage Program to increase approved loan applications of informal settler families. Likewise, in collaboration with economic and social welfare agencies, key shelter agencies will integrate sustainable livelihood and employment as a component of socialized housing projects.

Housing options should be studied for these to be more strategic, sustainable, and responsive to local-specific demographic and socioeconomic conditions and vulnerability to climate change and disaster impacts. The CALABARZON Shelter Task Force and the SCH will discuss and promote alternative housing production options, particularly for permanent and temporary shelters during disasters. Among the ideas to be explored is the provision of pre-fabricated housing units, which can be used as temporary housing/ evacuation facilities during disasters and natural calamities. In addition, vertical housing development will be considered, given the increasing population in highdensity areas and rapid urbanization in the region.

Integrate accessibility, health, culture, and resilience outcomes into the design of housing and communities

The DHSUD Region IV-A, Department of Public Works and Highways (DPWH) Region IV-A, Department of Energy (DOE), and the DICT Region IV, in partnership with LGUs, will ensure that the design of low-cost, socialized housing will be enhanced to conform with cultural norms. The design

will also integrate health, accessibility, and climate and disaster resilience outcomes, including energy efficiency, innovative green technologies, and other low-carbon measures. In addition, investments in rainwater harvesting infrastructure, permeable pavement, and water recycling techniques will be prioritized while supporting green building certifications and incentives to minimize resource depletion and reduce carbon footprints.

Ensure availability of utilities

Public-private partnership will be pursued to support spatial connectivity and accessibility of housing settlements to basic utilities, thereby improving human productivity, especially in poor and waterless areas. In addition, public utilities will expand the use of renewable energy sources to diversify energy options/supply while helping maximize the clean energy transition (See Chapter 13).

Provide public and active transportation links

Transportation networks will be enhanced to create better and more sustainable routes linking people to healthcare facilities, schools, markets, jobs, and cultural and recreational services. Likewise, mobility infrastructure such as bicycle and walking/jogging pathways will be provided to ease traffic congestion and promote environmental, health, and social wellness. Furthermore, the design should be gender responsive and should cater to the needs of vulnerable persons and disadvantaged groups to ensure a more inclusive transport system (See Chapter 13).

Outcome 4: Responsive governance advanced

Responsive governance accessibility

DILG Region IV-A and DICT Region IV will capacitate the LGUs to implement digitalization programs and adopt digital governance. This will be done by establishing inter-LGU knowledge-sharing platforms and regular hands-on training, including developing a guidebook or manual to institutionalize digital platforms at the local level. Further, the region will continue encouraging LGUs to adopt the Electronic Business One-Stop Shop (eBOSS) System to ensure the swift and contactless processing of documents for local businesses.

LGUs will also focus on upgrading computer-based administrative systems, protocols, processes and local governance operations to ensure the timely and effective delivery of services such as tax administration and collection systems, permitting, and certifications.

Sustain community livability planning and implementation

The region will continue to provide LGUs with technical assistance in formulating and monitoring risk-informed and harmonized plans. The DHSUD Region IV-A will continue to provide technical assistance to LGUs in preparing their CLUPs and LSPs and ensure the integration of sound and current housing and urban planning principles. DILG Region IV-A will assist in monitoring LGUs'

compliance with the updating or preparation of the plans.

In addition, carrying capacity assessment, climate risk assessment, strategic environmental gender assessment, and and development mainstreaming will be conducted to strengthen local development implementation. planning and These assessments will be guided by existing manuals developed by the government, such as the Manual on the Conduct of Urban Carrying Capacity Assessment in Philippines by the National Economic Development and Authority (NEDA), Manual on Computing Carrying Capacity of Ecotourism Sites in Protected Areas by DENR. Supplemental Guidelines Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan of Climate Change Commission, and Harmonized Gender and Development Guidelines by the Philippine Commission on Women and NEDA.

The region will lead the implementation of the regional spatial development framework and strategies to advance urban-rural linkages and address transboundary concerns for regional development. Studies on developing metrics, standards, and indices to measure livability will be supported to gain a more strategic assessment of the spatial distribution and analyze any inequities requiring urgent reforms.

Legislative Agenda

Table 4.3.1 presents the region's priority legislative agenda to establish livable communities.

Table 4.3.1 Legislative Agenda to Establish Livable Communities

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
National Land Use Bill	The bill will improve access to unutilized land for housing	DHSUD
Department of Water Bill	The bill will provide an organized framework for governing water resources	DENR, National Water Resources Board (NWRB)
Unnecessary plastic products regulation bill	The bill will facilitate the phasing out of single-use plastic.	DENR
Maritime Safety, Security and Prevention of Ship-Sourced Pollution Bill	The bill will help prevent and control marine pollution from any vessel.	Philippine Coast Guard (PCG), DENR, DOST
Magna Carta for Public Disaster Risk Reduction and Management Workers	The bill will promote and improve the socioeconomic and psychological well-being of public DRRM workers by improving working conditions, the environment, and terms of employment.	Office of Civil Defense (OCD)
National Housing Authority Act Amendments to NHMFC Charter	The bill will renew the NHA Charter and strengthen its organizational structure and functions. It will broaden NHA's mandate to include the development of a housing secondary mortgage market.	DHSUD
Rental Subsidy and Rental facilities Program	The bill will improve housing affordability and access, especially for ISFs, the homeless, and the underprivileged; It will facilitate the augmentation of available facilities for families affected by eviction and demolition due to infrastructure activities, court orders, or those in danger areas.	DHSUD

Results Matrix

Table 4.3.2 presents the indicators and targets within the plan period to establish livable communities.

Table 4.3.2 Results Matrix: Establish Livable Communities

INDICATOR	BASELINE		TARGETS					RESPONSIBLE AGENCY/
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY
Priority water bodies with water quality conforming with water quality guideline values								
Laguna Lake (BOD only)	"(3 mg/L) 2022"	<7 mg/L	Laguna Lake Development Authority (LLDA)					
Manila Bay (7 parameters)	"6 out of 9 parameters are within Class SB standard/ guidelines [2022]"	Class SB	Class SB	Class SB	Class SB	Class SB	Class SB	DENR-EMB
Laiya	"Passed (2022)"	Class SB	Class SB	Class SB	Class SB	Class SB	Class SB	DENR-EMB
Nasugbu	"pH - passed; FC - failed (2022) "	Class SB	Class SB	Class SB	Class SB	Class SB	Class SB	DENR-EMB

INDICATOR	BASELINE			TAR	GETS			RESPONSIBLE AGENCY/
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY
Matabungkay	"pH - passed; FC - failed (2022) "	Class SB	Class SB	Class SB	Class SB	Class SB	Class SB	DENR-EMB
Lemery	"Passed (2022)"	Class SB	Class SB	Class SB	Class SB	Class SB	Class SB	DENR-EMB
Imus River (10 parameters)	"6 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Ylang-Ylang River (10 parameters)	"6 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Rio Grande River (10 parameters)	"8 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Cañas River (10 parameters)	"7 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Iyam River (10 parameters)	"7 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Dumacaa River (10 parameters)	"6 out of 10 parameters are within the Class C guideline [2022]"	Class C	DENR-EMB					
Calumpang River (10 parameters)	"5 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Pansipit River (10 parameters)	"7 out of 10 parameters are within the Class C guideline (2022)"	Class C	DENR-EMB					
Maragondon River (10 parameters)	"7 out of 10 parameters are within the Class C guideline [2022]"	Class C	DENR-EMB					

INDIGATOR	BASELINE			RESPONSIBLE AGENCY/				
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY
Labac River (10 parameters)	"8 out of 10 parameters are within the Class C guideline (2022)"	Class C	Class C	Class C	Class C	Class C	Class C	DENR-EMB
Timalan River (10 parameters)	"7 out of 10 parameters are within the Class C guideline (2022)"	Class C	Class C	Class C	Class C	Class C	Class C	DENR-EMB
Obispo River (10 parameters)	"5 out of 10 parameters are within the Class C guideline (2022)"	Class C	Class C	Class C	Class C	Class C	Class C	DENR-EMB
Percentage of LGUs preparing ri	sk-informed plans							
CLUP	"65% (2022)"	52%	58%	65%	71%	77%	84%	DHSUD
LSP	"7% (2022)"	7%	9%	11%	13%	15%	18%	DHSUD
CDP	"73.93% (2022)"	increasing					DILG	
LDRRMP	"75% (2021)"	80%	82%	86%	90%	94%	100%	OCD
LCCAP	"52% (2021)"	85%	100%	100%	100%	100%	100%	Climate Change Commission (CCC)



Reduce Vulnerabilites and Protect Purchasing Power

CHAPTER 5

Reduce Vulnerabilities and Protect Purchasing Power

Reducing vulnerabilities of individuals and families and protecting the purchasing power of every Filipino are crucial in pursuing an inclusive and resilient society. Essential to this is ensuring food security and proper nutrition for each Filipino, including children, women, elderly persons, persons with disability, and indigenous people.

In the next six years, the CALABARZON Region will implement interventions to ensure sufficient and stable food supply and consumers' access to affordable, safe, and nutritious food. Interventions that will support the development of a transformative social protection system will be pursued to empower the vulnerable sector against domestic and international shocks and crises, including the pandemic and the geopolitical tensions of other countries.

Subchapter 5.1 Ensure Food Security and Proper Nutrition

Ensuring food security for and proper nutrition in Filipino households will improve Filipinos' well-being, enable them to be resilient to shocks and crises, and become economically productive. By 2028, we envision Filipino individuals and families having secure access to sufficient, affordable, safe, and nutritious food to sustain a "productive and healthy" life and to become resilient against shocks and crises that may erode their purchasing power. Achieving food security is necessary to ensure proper nutrition. Access to a healthy diet provides the nutrients required for a healthy life so that the body can make optimal use of these nutrients for its different functions.

Assessment and Challenges

Food security

Based on the 2015 Updating of Nutritional Status of Filipino Children and Other Population Groups¹ by the DOST-FNRI using the Household Food Insecurity Access Scale, the percentage distribution of food secured households in CALABARZON is 44.4 percent while the remaining 55.6 percent belongs to the mildly to severely food insecure

households. Nonetheless, CALABARZON has the most food-secure households in the country. Among the provinces, Laguna and Rizal have the greatest number of food-secure households, with 46.8 and 46.3 percent, respectively. The major source of food in the region is primarily through purchasing.

Food production

In terms of the value of production at 2018 constant prices, generally, food production in the region is declining at an average of 13.3 percent from 2017 to 2021. Production in the region has been affected by several events, including the implementation of government policies on the importation of some agricultural products amid supply and price issues. As shown in Table 5.1.1, livestock production is the major sub-sector posting decline since 2019, mainly due to African Swine Fever (ASF) prompting temporarily producers to close reduce the capacity of their farms. Similarly, fisheries production the specifically commercial region, and municipal fisheries, is decreasing brought about by frequent typhoons and limited mobility due to community restrictions amidst the COVID-19 pandemic.

Food inflation

Table 5.1.2. shows the retail prices of select agricultural commodities in CALABARZON from 2018 to 2022. In 2018, the sharp price increases in rice, meat, and fish were among the top contributors to the surge in overall inflation. However, with the passage of RA 11203 or the Rice Tariffication Law in 2019, rice supply increased and ceased to be among the drivers of inflation. Palay yield increased by 1.85 percent from 3.64 metric tons per hectare in 2020 to 3.71 metric tons per hectare in 2021. The positive performance in production was brought about by the increase in areas planted and continued government interventions through the Rice Competitiveness Enhancement Fund.

The price of pork abruptly increased in 2021 as local hog production contracted due to ASF. As ASF is highly contagious, infected pigs were culled to prevent transmission. Hog depopulation as a means of ASF disease

control has resulted in a decline in hog production.

On the other hand, the increase in chicken prices in 2021 was a result of decreased production due to high costs of inputs, such as day-old chicks and soya, and farm closure during the COVID-19 pandemic. There was also a notable increase in tilapia prices in 2021 as aquaculture production was greatly affected by the eruption of Taal Volcano and the declaration of Taal Lake as a danger zone. Fishing in Taal Lake was stopped, and aquaculture structures in the lake were damaged by the eruption causing fish stocks to escape into open waters. The strong typhoons during the second semester of 2020 also damaged aqua farms resulting in losses in stocks.

Food inflation was exacerbated by the Taal Volcano eruption, the COVID-19 pandemic that caused delays in distribution due to the imposed community lockdown and travel restrictions, and the series of destructive typhoons. Additionally, the production and transportation of agricultural commodities in 2021 were affected by the soaring prices of farm inputs (e.g., fertilizer, feeds, and fuel) due to the ongoing Russia-Ukraine conflict.

Malnutrition

Based on NNC Region IV-A's Operation Timbang Plus, stunting of children under five years old decreased from 11.09 percent in 2017 to 8.43 percent in 2019, while the prevalence of malnutrition in underweight, wasting, and obesity decreased from 2017 to 2019. Meanwhile, based on the FNRI's National Nutrition Survey, the proportion of households with per capita intake below 100 percent dietary energy requirement in CALABARZON decreased from 29.3 percent in 2015 to 26.3 percent in 2019. This is the result of the convergence of government and private sector efforts in the region.

Table 5.1.1 Growth Rates of Value of Production in Agriculture and Fisheries (at constant 2018 prices), CALABARZON. 2017-2021

SUBSECTOR	2017-2018	2018-2019	2019-2020	2020-2021
AGRICULTURE	0.8	2.0	-8.1	-13.3
Crops	1.3	-7.9	-6.5	2.6
Livestock	2.3	3.3	-11.3	-40.9
Poultry	3.1	6.4	-2.8	1.9
Fisheries *	-5.8	4.8	-11.8	-6.5

Source: PSA OpenSTAT

Table 5.1.2 Retail Prices of Select Commodities in CALABARZON, 2018-2022

СОММОДІТУ	PRICE (PHP/kg)								
	2018	2019	2020	2021	2022				
Rice, Regular-Milled	41.81	40.39	38.44	38.08	38.70				
Fresh Pork, Kasim	271.03	283.70	309.35	351.22	344.87				
Fresh Chicken, Fully Dressed, Broiler	154.50	161.35	160.93	173.90	188.18				
Fresh Fish, Tilapia, Medium	116.26	113.51	130.48	132.07	134.49				
Fresh Fish, Milkfish, Bangus, Medium	158.15	167.26	171.85	187.56	208.06				

Source: PSA OpenSTAT

Breastfeeding in the region remains a concern, with only 57.0 percent of children, zero to 23 months old being initiated to breastfeeding within one hour after delivery. Exclusive breastfeeding among zero to five months is at 32.4 percent, based on the 2015 Expanded National Nutrition Survey. The weak implementation of the Milk Code exacerbates the region's problem of malnutrition, specifically undernutrition, including stunting and wasting.

Nonetheless, even with the COVID-19 pandemic, the NNC continues to implement the Philippine Plan of Action for Nutrition (PPAN) 2017-2022, a plan against hunger and malnutrition, to achieve the desired outcomes of reduced stunting and wasting among children, address micronutrient deficiencies, and manage the emerging problem on overweight and obesity. The PPAN's regional counterpart, the Regional Plan of Action for Nutrition 2017-2022, serves as the blueprint of CALABARZON

LGUs in implementing nutrition-specific, nutrition-sensitive, and other enabling programs. Additionally, several private sector initiatives significantly contributed to the health and nutrition sector in 2021.

Challenges

Food production in the region remains vulnerable to shocks ranging from typhoons, pests, disease outbreaks, natural disasters such as volcanic eruptions, and health hazards such as COVID-19 to armed conflicts that threaten the stability and sufficiency of food supply. Aside from reducing food production, extreme weather events and other disasters also limit food distribution. This occurs when transportation and logistical facilities are hampered, resulting in delayed delivery of commodities to endusers and food spoilage. Conflicting and outdated traffic regulations and inspection protocols across all transport modes further disrupt movements along the supply chains. Inadequate storage facilities, such as warehouses and cold storage, further aggravate the slow movement of inputs and food products. Policies imposed by LGUs on goods crossing their respective borders further raise logistics constraints that affect retail prices of food products.

Meanwhile, the expansion in consumers' access to affordable, safe, and nutritious food is constrained by inequitable access to the internet, inadequate information and communications technology infrastructure, and limited use and knowledge of digital technologies. This so-called digital divide manifests in the inability of many to participate in emerging online market platforms to avail themselves of safe and nutritious food when traditional supply chains are disrupted, especially during disasters or emergencies as experienced COVID-19 during the community quarantines.

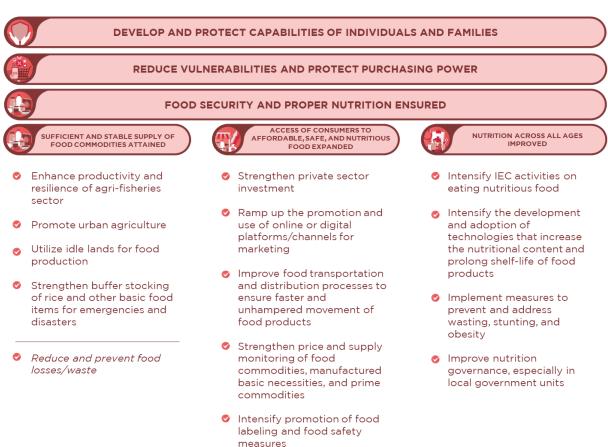
Being underweight, wasting, and stunting among preschool children under five years old remain to be regional concerns. Undernutrition and micronutrient deficiencies in the region are attributed to insufficient access to healthy foods, a sedentary lifestyle, inadequate care and feeding practices, and inadequate health systems.

The situation is also aggravated by the fragmented and uncoordinated approach of relevant agencies and stakeholders for nutrition, the limited capacity of some LGUs in the implementation of health and nutrition programs, the absence of the Local Nutrition Committee and Population Committee, and a limited budget for nutrition programs. Relatedly, some LGUs prioritize infrastructure and economic development over localizing and integrating the PPAN with their local programming and budgeting².

Strategy Framework

To ensure food security with proper nutrition, the following outcomes will be pursued: (1) sufficient and stable supply of food commodities attained; (2) access of consumers to affordable, safe, and nutritious food expanded; and (3) nutrition across all ages 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

Enhance productivity and resilience of agri-fisheries sector

Farmers and fisherfolks face various challenges and limitations to improve productivity through various available technologies. However, some of them are not open to adopting new technologies. But their mindset will change as more government extension services on capacity-building activities and information dissemination on technology transfer take place. In addition, reasonable credit and financial services will be made accessible to farmers and fisherfolks to serve

as capital so they can avail of their choice of technology.

In case of another ASF and Avian Flu outbreak, major production areas will be sheltered. Buffer zones for chicken and pork production will be set up to prevent disruption in supply. Relatedly, biosecurity, surveillance, monitoring, disease prevention, control, and implementation of regulations, policies, and laws of the regional field office and LGUs will be strengthened to ensure food safety and to prevent the spread of pests and diseases. The government will also continue

providing production support services under the Department of Agriculture's Livestock Program, such as artificial insemination and the establishment of multiplier farms or a scaled-up version of the dispersal program where animal stocks are distributed to the farmers to ensure animal productivity.

Crop insurance will be provided to all farmers and fisherfolks to protect them from production shocks brought about by calamities. This will be done by improving the awareness and appreciation of small farmers and fisherfolk of risk insurance. Innovative agricultural insurance schemes such as weather index-based and area-based yield index insurance will be promoted.

The database for the distribution of support to stakeholders will be strengthened. This will allow government and its partners to identify areas with many farmers and fishers listed in the Registry System for Basic Sectors in Agriculture and FishR System, among others, to be prioritized in the access to government support services.

Additional strategies on diversifying farm and non-farm income, clustering to address concerns on productivity, and improving access of primary producers to production requirements are discussed in Chapter 7 under the sub-sector outcome on enhancing the efficiency of Agriculture, Forestry and Fishery (AFF) production.

Promote urban agriculture

Non-traditional farming systems such as vertical gardens and hydroponics will be explored. Starter kits and training on urban agriculture, vertical/rooftop backyard, and school and community gardening will be provided. Social preparation of beneficiaries will be conducted before the distribution of planting kits to make sure they are ready and willing to plant and use the provided kits.

This will be done with the assistance of the private sector. Backyard farming, including purebred native chicken and its attendant management technologies, will also be promoted. In addition, the use of enriched potting preparation technology, a form of urban gardening that uses plastic bottles and potting mediums which can be installed in small spaces, will similarly be promoted.

Utilize idle lands for food production

Incentives will be provided to owners of idle lands that will be used for agricultural production, consistent with its intended classification based on the local government's Land Use Plan. In addition, land distribution to agrarian reform beneficiaries will also be facilitated to contribute to production.

Land use will be maximized through multi-cropping and mixed cropping with ruminants, especially with perennial crops (i.e., coconut and lowland vegetables, coconut and ruminants, coconut and mung bean). Mangrove development and reforestation will be strengthened by planting fruit-bearing trees instead of timber in reforestation areas to provide additional sources of food supply.

For the legislative agenda related to the pursuit of rationalized utilization of land, Chapter 7 provides a discussion specifically on the National Land Use Act, Consolidating Land Administration and Management Functions, Idle Land Tax, and the New Agrarian Emancipation Act.

Strengthen buffer stocking of rice and other basic food items for emergencies and disasters

The region experienced several emergencies in the past years, such as the Taal Volcano eruption, a series of strong typhoons, and the COVID-19 pandemic. These events underscored the importance of an assured supply of safe and affordable food.

One of the major strategies CALABARZON during typhoons and the COVID-19 pandemic is maintaining a buffer stock to ensure continuous provision of basic food items. As mandated by RA 11203 or the Rice Tarrification Law, the National Food Authority will maintain sufficient rice buffer stock to be sourced solely from local farmers. This buffer stock will be maintained at any given time for use during emergency situations and to sustain disaster relief programs of the government during natural or human-made calamities.

The LGUs, especially those in the Provinces of Laguna and Quezon, will be encouraged to practice buffer stocking since they are the major producing areas in the region. To help local farmers, the LGUs will be encouraged to buy local farmers' produce for inclusion in the food packs to be distributed.

Buffer stocking of high-quality rice and corn seeds will be pursued to ensure that there is enough supply of seeds that can be used for replanting after calamities and emergencies.

The DSWD is mandated to continuously provide support and augment the supply of family food packs for affected families in coordination with the concerned LGUs. The DSWD will ensure that food items for distribution meet the daily Recommended Energy and Nutrient Intake of a person and that components of packs to be provided for the affected families are culturally acceptable.

Reduce and prevent food losses/ waste

According to the 2017 report by the National Solid Waste Management Commission (NSWC), CALABARZON is the second biggest contributor to waste generated in the Philippines, next to the NCR in 2016. The NSWC reported that about 52 percent of the total solid waste in the country is biodegradable, mostly from food and yard waste.

Measures to reduce and avoid food losses will be implemented, such as providing equipment, facilities, and capacitybuilding for community composting, which will be promoted together with urban gardening through LGU partnerships with homeowner's associations. Capacity building through various media and information, education. and communication (IEC) materials will be conducted to include composting and the use of food waste as animal feed.

To further reduce food wastage, consumers will also be encouraged to buy only what is needed and can be consumed, and to prepare or cook only what can be eaten. IEC efforts encouraging citizens to buy fruits and vegetables that do not meet market standards but are otherwise good to eat will be supported.

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

Strengthen private sector investment

Partnerships with the private sector, especially on investment opportunities and R&D, will be strengthened. The private sector will be assisted, and registration processes

will be streamlined by concerned government agencies and LGUs, particularly for the construction or establishment of facilities and logistics to encourage investment.

Private sector investment in infrastructure towards improved logistics and transport

of agriculture and fisheries systems products such as cold storage, rolling stores, warehouses, ports, transport services, and reefer vans, among others, will be encouraged. Similarly, investments in production and processing will be promoted, such as making seeds and planting materials for stresstolerant crop varieties available, biosecurity measures, tunnel-vent technology and other technology-based operation systems, and food packaging. Other potential investments include those in precision farming and data-gathering technologies that will assist farmers in farm decision-making.

Opportunities for the private sector to participate in the value-adding of AFF products are also discussed as one of the strategies under Chapter 7.

Ramp up the promotion and use of online or digital platforms/channels for marketing

Promotion and use of online or digital platforms/channels for marketing, transactions, payments, and deliveries will be ramped up through IEC, capacity building, and by creating an enabling environment. Farmers and their families will be encouraged to capitalize on digital agriculture to increase their productivity and incomes.

Digital support will be provided, especially to small-scale farmers, to ensure that data and seamless connection will be available such as digitization of market transactions, online buy and sell, and payments via e-wallets. Initiatives to address barriers to access, including the high costs of digital devices and services, lack of digital literacy and skills, and low awareness of and trust in digital solutions, will be pursued.

The Department of Agrarian Reform (DAR) has partnered with AgriNurture Inc. (ANI) to use digital marketing and enhance the management capabilities of agrarian reform beneficiaries (ARBs). ANI will serve as the

institutional buyer of agricultural products and provide an innovative digital facility to Agrarian Reform Beneficiaries Organizations (ARBOs). The e-commerce platform that will be offered to ARBOs will help them connect easily with various merchants and ensure a market for their harvests through institutional buyers and consumers.

The DA, through its Byaheng Digiskarte ni ANI at KITA Program and the BayaniKita application (app), will continue to encourage and educate more farmers and fisherfolks on digital platforms to further boost their earning powers. The Byaheng Digiskarte ni ANI at KITA is a mentoring program undertaken in collaboration with the Aboitiz Foundation. It is designed to assist in the recovery and growth of micro, small, and medium enterprises and cooperatives that were affected by the COVID-19 pandemic by linking them up with digital technologies and other platforms to increase profit. On the other hand, the BayaniKita app features a chat facility directly connected to the DA Office of the Secretary to address stakeholders' concerns and complaints, an e-wallet system connected to digital payment facilities or platforms, and a digital identification for farmers and fishers. The app is also integrated with other services of the DA such as weather updates, marketing platforms such as bagsakan/bulungan and price monitoring, and the Bantay ASF program, among others.

Digital marketing will also be pursued through DA's E-KADIWA, an online marketing platform that producers and connects agripreneurs to consumers. Under the E-KADIWA, sellers will be allowed to sell their agricultural products, including vegetables, rice, and fruits, at suggested retail prices.

Improve food transportation and distribution processes to ensure faster and unhampered movement of food products

Food transportation and distribution processes will be improved to ensure faster and unhampered movement of food products. More means of transportation that will link consumers to the market will be made available. Local markets that can offer reasonable prices to consumers due to lower transportation costs, will be established to encourage consumers to buy more.

The DA will also expand its "KADIWA" outlets so that more consumers will get to enjoy access to quality, safe, and affordable agri-fishery products. KADIWA is a marketing initiative of DA, implemented through its Agribusiness and Marketing Assistance Service that seeks to empower the farming community by providing a direct and effective farm-to-consumer food supply chain. Through KADIWA, marketing layers will be eliminated, allowing producers to earn bigger from directly selling their produce instead of using trader-intermediaries. It also reduces marketing expenses that will make fresh and quality products more affordable for consumers.

Further enhancements in the implementation of KADIWA will include new innovative platforms and modalities such as:

- KADIWA Retail Selling where suppliers in an area can directly sell their goods to the consumers. Interested government offices, LGUs, and the private sector may request the DA for the conduct of KADIWA Retail Selling activity in their areas;
- KADIWA On-wheels, a mobile market similar to rolling stores that serve the communities or barangays; and
- KADIWA Express, where the private sector and LGUs will be tapped in the transport and distribution of fresh produce from

Agri-*Pinoy* Centers to designated drop-off points in Metro Manila.

Distribution of goods from the region to Metro Manila will be supported through the Food Lane Project, a collaborative effort of the DA, DILG, Philippine National Police, and Metro Manila Development Authority. The Food Lane will ensure efficient delivery of agri-fishery commodities and reduce post-harvest losses and transportation costs by eliminating additional fees and unnecessary checkpoints.

Further, the Department of Trade and Industry (DTI) and DA, in collaboration with LGUs, manufacturers, and distributors, will strengthen the implementation of programs that facilitate the delivery of goods to consumers, such as *Diskwento* Caravans and *Presyong Risonable Dapat* Program.

Strengthen price and supply monitoring of food commodities, manufactured basic necessities, and prime commodities

Price and supply monitoring of food commodities, manufactured basic necessities, and prime commodities will be strengthened. The DA, through its Regional *Bantay Presyo* Monitoring Team, will regularly collect data on retail and farm gate prices of agricultural commodities in the region to determine supply and demand at market and production levels. Similarly, the DTI will closely monitor the prices and supply of prime commodities in the region. Price monitoring by the DTI is made accessible to consumers through e-*Presyo*, an online price monitoring system where the consumers can check prevailing prices at the DTI website.

At the local level, the Local Price Monitoring Councils will be revived to regularly check prices of basic commodities and impose price ceilings, especially in areas under a state of calamity wherein price controls are enforced to prevent traders from exploiting such situations through hoarding or price manipulation.

Intensify promotion of food labeling and food safety measures

Food labeling and food safety measures will be promoted through IEC activities. Various digital platforms, such as social media, will be used to intensify the campaign and expand the reach of IEC activities to combat false advertising. Concerned government offices will have a consultative and feedback mechanism to facilitate the delivery of appropriate action or response on related issues and concerns of consumers.

Efforts on food safety implemented by various agencies and offices will be harmonized. Policies and regulations to ensure food safety for fresh and processed food will be enhanced and enforced, including processing and marketing of unhealthy food.

The DOST Region IV-A will continue to promote food safety in the region through its Food Safety Self-Assessment Tool (FFSAT),

a web application that assists those in the food industry in tracking their compliance with basic food hygiene and other food safety requirements. It ensures food safety is practiced amidst the increasing home-based and online food selling. Additionally, the DOST provides capacity building on the fundamentals of food hygiene practices, food safety-related laws and regulations, steps to secure sanitary permits, and the use of FFSAT.

Initiatives to promote and reiterate the importance of food labeling will be pursued, such as DOST's webinars on packaging trends and opportunities and its laboratory facilities for product testing, nutrition facts analysis, and shelf-life study. The DOST webinar on packaging trends emphasizes how informative packaging adds value to the product and discusses the mandatory labeling requirements under Administrative Order No. 2014-0030 or the Revised Rules and Regulations Governing the Labeling of Pre-packaged Food Products Distributed in the Philippines.

Outcome 3: Nutrition across all ages improved

Intensify IEC activities on eating nutritious food

IEC activities will be conducted to promote affordable, nutritious, and healthy food alternatives that meet dietary needs, such as plant-based food alternatives and alternative proteins. Nutrition will be advocated at the individual, community, environmental, and structural levels to improve nutrition outcomes. One of the relevant interventions that will be pursued is the Supplementary Feeding Program, which is jointly implemented by the DOH, DSWD, DepEd, and LGUs in partnership with non-government organizations. Aside from providing nutritious foods to supplement the diets of school children, the program provides information on healthy eating.

IEC materials promoting healthy eating, such as the NNC's Nutri-Komiks will be published and distributed to provide essential nutrition guidelines. The LGUs will be encouraged to reprint and distribute IEC materials to educate more people on proper nutrition. Also, the *Pinggang Pinoy* will be continuously promoted as a tool to guide consumers on the right amount of food in every meal.

The DOST-FNRI will continue to provide Nutrition Educator's Kit with simple and easy-to-understand materials that will be useful to health workers and barangay nutrition scholars.

Intensify the development and adoption of technologies that increase the nutritional content and prolong the shelf-life of food products

There will be intensified development and adoption of technologies that increase the nutritional content and prolong the shelf-life of food products. This will be done through more R&D activities for new product development and reformulation, including easy-to-prepare food using indigenous ingredients. In addition, there will be a more enabling environment and opportunities for food and beverage businesses to work together and share technical know-how and success stories to encourage further R&D.

Safe, affordable, nutritious, and energy-dense food products that will address vitamin A and micronutrient deficiency will be developed to help achieve the nutrient needs of vulnerable groups, especially pregnant and lactating mothers, infants, and young children. The DOST's Brown Rice Bar, Iron Fortified Rice, and Iron Rice Premix Technologies are some of the R&D outputs that will be promoted. The technologies address Iron Deficiency Anemia which is prevalent among four out of 10 pregnant and three out of 10 lactating women.

The adoption of Enhanced Nutribun (nutrition in a bun) technology will be expanded to interested adopters in the region. The DOST-FNRI will provide technical assistance to make technology transfer possible. The Enhanced Nutribun, a reformulated version of Nutribun bread in the 1970s by the DOST-FNRI, is made from squash and is intended to help respond to the needs of children, especially those with vitamin A deficiency.

Implement measures to prevent and address wasting, stunting and obesity

Information dissemination and campaigns will be strengthened to ensure that consumers, especially children, are protected from commercial interests. Supplemental feeding programs for vulnerable groups, nourishment of pregnant women, daycare and school children supplementation programs, and micronutrient supplementation for all under-five and school children will be continuously implemented.

The private sector and other nongovernment organizations' roles in addressing malnutrition will be strengthened. The CALABARZON RDC through Resolution No. IV-A-30-2021 encourages participation in the Philippine Multi-Sectoral Nutrition Project (PMNP) of the NNC and DSWD. The project will increase the utilization of nutrition-specific packages and nutritionsensitive interventions in CALABARZON. The PMNP will be supported as it contributes to the attainment of the region's goals of improving the nutrition of children and complementing initiatives on the First 1000 Days Law implementation.

The delivery of services critical to the first 1,000 days of life will be ensured, especially during emergencies. Supportive environments will be provided, particularly those that encourage physical activity, restrict access to unhealthy foods and drinks, and promote exclusive breastfeeding in the first six months. In addition, the construction of human milk banks that will serve as breastmilk storage will be promoted to encourage exclusive breastfeeding for six months and promote appropriate complementary feeding practices to prevent infant malnutrition.

Relatedly, the CALABARZON Task Force on the Philippine Milk Code will continue monitoring compliance with the implementation of Executive Order No. 51, series of 1986 or the Philippine Milk Code. The Task Force was created by virtue of RDC Resolution No. IV-A-55-2021 in response to the region's low breastfeeding rates and reported Milk Code violations during the Taal Volcano eruption in 2020 and the COVID-19 pandemic. These violations include the donation of milk formula, the use of breastmilk substitutes and feeding bottles, and other products that undermine breastfeeding and put infants and young children at risk of malnutrition.

To facilitate the delivery of support services, the NNC will formulate a spot map that shows areas in the region with high rates of malnutrition, specifically stunting, wasting, and overnutrition. The NNC, in coordination with the DOST Region IV-A, will formulate the spot map to initially include the list of top 20 municipalities with high prevalence of stunting, overnutrition, and wasting. This initiative will eventually be expanded to cover the entire region.

Improve nutrition governance, especially in local government units

Nutrition governance will be improved by strengthening the barangay nutrition scholar program, establishing LGU nutrition offices, enhancing the functionality of all Local Nutrition Committees and capacities of Local Nutrition Workers, and strengthening the coordination system among the national and regional governments through the NNC. The region will continue to pursue policies that will facilitate and improve the benefits of nutrition workers. The RDC, through its Resolution No. IV-A-12-2022 requested the DOH, Department of Budget and Management, and DILG to fast-track the issuance of guidelines on the standardized and competitive benefits and incentives for Public Health Workers, including Barangay Health Workers and Barangay Nutrition Scholars.

A nutrition action officer will be designated at the LGU level to attend to the day-to-day operations of coordinating nutrition actions. Technical capacities for nutrition policy formulation, planning, monitoring, and evaluation will be strengthened to equip the officer with the skills to plan, implement, coordinate, monitor, and evaluate local nutrition programs and projects at the local level.

The NNC will expand the implementation of the Learning Hub on Enhanced and Revitalized Nutrition (LHEARN) Program in the region. The program aims to facilitate the sharing of knowledge and experiences in nutrition program management among LGUs for improved nutrition. The program is part of the LGU Mobilization Strategy of the NNC to achieve the goals and outcomes of the PPAN 2017-2022. In 2021, Tagaytay City was selected as one of the pilot areas in the country to pioneer the establishment of the Nutrition Learning Hub by virtue of City Executive Order No. 356, s.2021. The CALABARZON RDC passed Resolution No. IV-A-56-2021 endorsing the LHEARN program for adoption and support of the LGUs in the region.

The region, through the RDC, will also support and advocate the Scaling Up Nutrition (SUN) strategy and organization, especially in LGUs. The SUN is a global movement to end malnutrition in all its forms, holistically address nutrition-related problems, and strategize nutrition plans. A regional SUN network will be convened to push for the implementation of the PPAN.

The LGUs will be encouraged to scale up efforts to achieve desired nutrition outcomes by implementing quality nutrition programs and interventions in the PPAN and Regional Plan of Action for Nutrition. The RDC, through Resolution No. IV-A-34-2022, entitled "Endorsing the Nutrition Champions

Program for Adoption and Support of the Local Government Units," encouraged LGUs to include nutrition interventions in their local investment programs. The Nutrition Champions Program is one of the adopted mobilization strategies for capacitating LGUs to improve nutrition program management. The program components include the development of local nutrition action plans and budgets, integration into local plans and programs, provision of technical assistance, and introduction to the Nutrition Leadership and Governance Program. The RDC will continue to advocate the programs and monitor compliance of LGUs to ensure that the nutritional needs of vulnerable groups are integrated into their plans and programs, including the Provincial Development and Physical Framework Plan, Comprehensive Development Plan, and Local Development Investment Program.

RDC also passed Resolution No. IV-A-101-2020 endorsing to the LGUs included in the ECCD-F1K Pilot and Expansion Areas the inclusion of ECCD-F1K Program in their Annual Investment Programs and Local Development and Investment Programs. Fifteen LGUs in Quezon Province and Rizal were selected as pilot and expansion areas for the implementation of the ECCD-F1K in CALABARZON. The monitoring of F1K Program implementation is also included as one of the priority activities of the RDC Sectoral Committee on Social Development/Social Protection.

Legislative Agenda

Table 5.1.3 presents the region's priority legislative agenda to ensure food security and proper nutrition.

Table 5.1.3 Legislative Agenda to Ensure Food Security and Proper Nutrition

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Enactment of Urban Agriculture Law	The proposed law aims to promote urban agriculture and vertical farming in the country's metropolitan areas to contribute to food security. Under this proposal, the use of available government- and privately-owned land resources in urban areas suitable for growing crops and raising poultry, livestock, and aquaculture will be promoted for agriculture purposes.	DA, DILG, LGUs, DepEd, SUCs
Food Waste Management Policy	This policy seeks to address the growing food waste problem in the country by adopting and institutionalizing mechanisms that will promote, facilitate, and ensure food waste reduction across different sectors of society (e.g., households, food establishments, food distributors, and supermarkets). This will include establishing (a) food donation and distribution platforms and networks such as food banks and community pantries; and (b) community composting that may be linked with initiatives on developing green urban spaces, including urban agriculture sites.	NNC, DENR, DSWD, DepEd, DOH, DA, DTI, Department of Tourism (DOT), DOE, DILG, and LGUs
Amendment of Presidential Decree 1569 or Strengthening Barangay Nutrition Scholars (BNS)	The amendment will upgrade the qualification standards, incentives, and benefits and ensure the security of the tenure of BNS. This is essential in the continuing capacity building and sustained delivery of quality frontline nutrition services to the community. Further, this will ensure that trained and experienced BNS are carried over by succeeding political administrations.	DILG, LGUS, DOH, NNC
Establishment of LGU nutrition offices	The presence of the Nutrition Office with adequate and 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.	DILG, LGUS, DOH, NNC
Anti-Unhealthy Foods in School Act	This proposed law prohibits selling, promoting, marketing, or advertising unhealthy foods, junk foods, and sugary drinks within 100 meters of school premises in all public and private preparatory, elementary, and junior and senior high schools. This will help prevent overweight and obesity among school children.	DOH, NNC, DepEd, DILG, LGUs
Amendment of RA 8976 or Food Fortification Law	The proposed amendment aims to resolve gaps and inconsistencies between RA 8976 with RA 11037 (Child Nutrition Act), RA 10611 (Food Safety Act of 2013), and RA 8172 (Act for Salt lodization Nationwide). In particular, the amendment will focus on the coverage of mandatory fortification for rice, authorizing the NNC Governing Board to add and remove food for fortification and other provisions that need updating. This proposed legislative measure will also amend RA 8172 to enhance support for the local salt industry.	DOH, NNC, FDA, DTI, DOST-FNRI, DA and Land Bank of the Philippines (LBP)

Results Matrix

Table 5.1.4 presents the indicators within the plan period to ensure food security and proper nutrition.

Table 5.1.4 Results Matrix: Ensure Food Security and Proper Nutrition

WEIGHTON	BASELIN	RESPONSIBLE AGENCY/			
INDICATOR	YEAR	VALUE	REPORTING ENTITY		
Food inflation rate [%] kept stable *	2022	4.70%	PSA		
Subsistence incidence among population (%) reduced **	2021 2.40%		PSA		
Prevalence (%) of overweight / obese children 5-10 years old					
Cavite Province	2021	25.40%	NNC		
Laguna Province	2018	15.2%	NNC		
Batangas Province	2021	19.5%	NNC		
Rizal Province	2019	19.2%	NNC		
Quezon Province	2019	10.7%	NNC		

Subchapter 5.2 Strengthen Social Protection

Vulnerable groups include children, women, persons with disability, indigenous peoples, the elderly, OFs and their families, informal sector workers, persons experiencing gender-based discrimination and violence, and other marginalized groups. This chapter discusses the strategies to support the most vulnerable groups in the region and the government's performance in reducing the socioeconomic risks of these groups. This section also includes strategies to attain a universal and transformative social protection program for all and covers the updates on asset reform in the region.

Assessment and Challenges

Social protection (SP) programs helped mitigate the poverty impact of the COVID-19 pandemic, specifically, the Social Amelioration Program/Emergency Subsidy Program that served 5,203,206 beneficiaries in the region under the Bayanihan 1 and 2 implementation. Also, the *Pantawid Pamilyang Pilipino* Program (4Ps) was piloted and rolled out nationwide, becoming the country's largest conditional cash transfer program.

In addition, significant legislations were passed that expanded social protection coverage, including the Universal Health Care Act; 4Ps Act; the Community-Based Monitoring System Act; the Increase in Social Pension Act; and Philippine Identification System Act.

Below are the specific regional accomplishments and challenges in the delivery of SP programs to address vulnerabilities of individuals and families:

Increased number of conditional cash transfer (CCT) beneficiaries. The total number of CCT beneficiaries increased from 315,366 in 2017 to 322,261 in 2021. The Province of Quezon has the highest number

of beneficiaries, while the Province of Rizal has the lowest. Additional sets of households were validated and registered in the program. In 2021, compliance with the conditionalities of the program was suspended due to the increased seismic activity of Taal Volcano and the implementation of granular lockdowns in select areas.

Strengthened convergence for poverty alleviation and strong private sector organization support. Various convergence activities for poverty alleviation between the public and private sectors were conducted in the region through initiatives such as Adopta-Municipality (AAM) and Adopt-a-Family (AAF). The AAM is an initiative by the RDC, to help municipalities through technical assistance and outreach activities. The region's SUCs also participated in the AAM program. On the other hand, the AAF is an RDC -Private Sector Representative initiative that supports pockets of poverty in the region and displaced workers due to the COVID-19 pandemic. The services provided in the AAF included financial assistance, relief goods operation, community gardens, livelihood enrichment activities, mangrove development, foster care, and scholarships.

Increased number of low-income senior citizens covered by social pension. Low-income senior citizens covered by the social pension benefit increased from 159,999 in 2017 to 313,759 in 2021. Waitlisted beneficiaries of the program based on the list provided by LGUs were validated. Beneficiaries found to be eligible were included in the master list which was encoded through the Social Pension Information System.

Increased PhilHealth coverage. With the implementation of the Universal Health Care (UHC) Act, the region attained 100 percent of Filipinos eligible for PhilHealth benefits since 2020. PhilHealth also offered benefit packages for COVID-19 testing, home isolation, community isolation, inpatient care, and vaccine injury compensation. The health care financing reforms under the UHC Act such as automatic inclusion of every Filipino in the National Health Insurance Program (NHIP) and the simplification of membership categories to direct and indirect contributors were implemented.

Pockets of high poverty incidence. Despite efforts to alleviate poverty and introduce SP programs, pockets of high poverty incidence still exist in the region. Poverty incidence among families in CALABARZON was estimated at 7.2 percent in 2021 from 5.1 percent in 2018 based on the preliminary results of the 2021 Family Income and Expenditure Survey by the PSA. proportion of families in the region whose incomes are not sufficient to buy minimum basic food and non-food needs has increased from 2018 to 2021. In terms of poverty incidence among the population, a substantial increase was recorded from 7.1 percent in 2018 to 10.2 percent or about 1.7 million lowincome Filipino residents of the region in 2021^{3} .

Limited transition programs for 4Ps. While there is an increase in CCT beneficiaries, there is a need to formulate and implement a transition program for 4Ps beneficiaries, in partnership with other concerned agencies, to ensure that they can sustain the gains from the program by having a permanent means to stay out of poverty.

Cases of violence against women and children persist. Violence against women continues in the region. Results of the 2017 National Demographic and Health Survey conducted by the PSA and data from the DSWD showed an abrupt increase in the number of women in difficult circumstances from 171 in 2017 to 966 in 2020. This was based on the upsurge in the number of distressed women OFWs served by DSWD.

The number of children needing special protection, persons below 18 years old, or those 18 years old and over who cannot care for themselves because of physical and mental disability or condition, and those who are vulnerable to or victims of abuse, neglect, exploitation, cruelty, discrimination, and violence, saw a 3.9 percent increase from 486 in 2017 to 505 in 2020.

Unmet zero casualty. The region has yet to achieve its target of zero casualties for natural and human-induced disasters. The increased intensity of disasters and the limited resources by the national and local governments may hamper the achievement of the target.

Lack of a database of beneficiaries. A significant constraint in delivering SP services, especially during the COVID-19 pandemic, is the lack of a harmonized database of beneficiaries. This prompted the DSWD, DILG, and LGUs to rely on different beneficiary targeting protocols. In particular, the DSWD used its lists for the 4Ps and social pension, livelihood assistance grants, and other social assistance packages, while the list of overseas workers came from OWWA

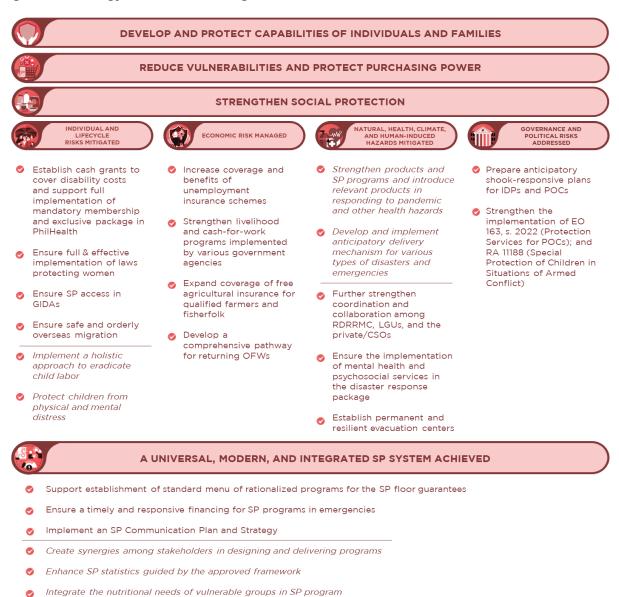
of the Department of Labor and Employment (DOLE). The lack of an existing database resulted in delays in the delivery of assistance

that was furthered by major logistical issues due to mobility and geographical constraints.

Strategy Framework

The strategies under this chapter highlight the government's objectives to provide a universal and integrated SP system to build the resilience and adaptive capacity of the population against various present and future shocks challenging Filipinos. The rationalized SP system includes specific strategies to protect vulnerable groups from climate- and human-induced hazards and economic, natural, health, governance, and political risks.

Figure 5.2.1 Strategy Framework to Strengthen Social Protection



Strategies

Outcome 1: Universal, modern, and integrated social protection system achieved

Support the establishment of standard menu of rationalized programs for the SP floor guarantees

Existing SP programs will be reviewed to duplications check for and overlaps. Convergence among implementing agencies and LGUs will be intensified to harmonize the implementation and delivery of current SP programs. The efficient identification of eligible beneficiaries through a universal database system may serve as a tool to avoid duplication and overlaps among service providers. Thus, an up-to-date social registry for the CALABARZON population will serve as a needs-centered inclusion and information system. Through DSWD's Listahanan, the database of low-income households in the region will continuously be updated for an equitable distribution of SP program benefits such as the 4Ps and expanded Social Pension for Indigent Senior Citizens. Similarly, this will aid in the effective targeting system and close coordination among agencies to rationalize program implementation.

In relation to the harmonization of the data collection system, some registries will also be linked with the database that will emanate from the community-based monitoring system (CBMS) for the delivery of benefits. PSA will continue to provide technical assistance in the rollout of CBMS in CALABARZON. CBMS will contribute to a more comprehensive targeting of social protection and welfare program beneficiaries. The DILG will also intensify the campaign on CBMS to encourage its implementation in all LGUs.

Rationalization or reorganization of selected SP programs will also increase the efficiency

and effectiveness of program delivery. An institutionalized monitoring and evaluation system will also warrant need-responsive interventions and sustainable SP projects (e.g., setting up and operationalizing SP coordination structures at the regional, provincial, and local levels). Among the programs that will be reviewed are emergency cash assistance, livelihood, and social insurance.

Ensure timely and responsive financing for SP programs in emergencies

The government will mobilize more resources for SP programs through closer coordination with the private and civil society sectors to ensure adequate financing for the SP responses during emergencies. The COVID-19 pandemic highlighted inefficiencies in the delivery of SP programs as adjustments to SP programs and data limitations hampered the targeting and provision of assistance in some localities. With sufficient resources allocated and access to a unified database system and digital payments assured, implementing agencies and LGUs will ensure hassle-free and efficient financing of SP programs, especially during calamities.

The full implementation of the Philippine Identification Card project under the Philippine Identification System (PhilSys) will provide a unified national identification system for all citizens and resident aliens of the country. This will ensure inclusive access to social services and promote ease of doing business to facilitate transactions, including those of vulnerable groups⁴. SP implementers will also be capacitated.

Relatedly, the full implementation of the PhilSys will transform the mode and improve the timeliness of SP program delivery to ensure financial inclusion. Expanding digital infrastructure through the system will address common barriers in government transactions, such as long queues, inconsistent or missing information, and costs incurred in accomplishing relevant paperwork. Further, it promotes transparency while ensuring that data protection measures/authentication are in place.

Initiatives to ensure equitable distribution of SP programs will also be promoted through the use of sex-disaggregated data (SDD) collected and analyzed using the SDD database system of agencies, LGUs, and other government instrumentalities as provided for in the Magna Carta of Women and other GAD-related policies. The use of SDD and SDD database will continuously be advocated in the region. The local GAD budget and DRRM funds will also be tapped to fund timely and gender-responsive SP programs.

Implement an SP communication plan and strategy

Communication is at the core of SP programs, and a comprehensive SP Communication Plan will help the public become aware of service providers' programs. The communication plan will delineate the roles of agencies and LGUs in information dissemination. Gender-related aspects will be integrated into designing and implementing social protection programs to ensure gender-responsive and inclusive growth in the region. The regional offices of DSWD, Social Security System (SSS), Government Service Insurance System (GSIS), and PhilHealth will be at the forefront of the advocacy on SP programs. These agencies may also coordinate with regional information agencies like the Philippine Information Agency to implement the communication plan.

The RDC convergence/outreach activities will also engage intended beneficiaries to help them better appreciate the government's SP programs. Implementing agencies will consider the differences in geographies, cultures, and norms in the design of communication instruments. The frequency of communication and a feedback mechanism will also be incorporated into the communication plan.

Create synergies among stakeholders in designing and delivering programs

Coordination on program implementation and delivery between LGUs and implementing agencies will be strengthened, especially in delivering SP programs usually undertaken in partnership with the local government. Similarly, private sector participation will be encouraged to expand the reach and increase the number of SP programs. The various subcommittees of the RDC-Sectoral Committee on SCSD/SP will continue to promote complementary SP programs and strengthen collaboration and convergence to avoid duplication of programs and projects.

Apart from the regular SP programs provided by DSWD, the region will continue to implement and strengthen its convergence initiatives. The RDC SCSD/SP is mandated to coordinate and promote social development and review or evaluate the region's major development issues and concerns. Initiatives that promote convergence in delivering services will be promoted and encouraged.

Enhance SP statistics guided by the approved framework

Using the approved SP framework, SP statistical indicators will be enhanced to monitor and evaluate SP programs and serve as evidence in planning and policy-making. However, one of the major challenges in implementing social services and SP programs is the absence of a

harmonized and unified database system from the service providers. Thus, there is a need to develop a centralized data collection system using uniform and comprehensive statistics with consistent data reporting and updating. The region also needs help with the limited capacity of SP statistics implementers, resulting in limited database submission to capture comprehensive data.

Integrate the nutritional needs of vulnerable groups in social protection programs

Integrated SP interventions can further strengthen the socioeconomic outcomes of SP policies. The SP programs will include investments and integration of health, education, and the nutritional needs of the vulnerable sector.

For the nutritionally vulnerable population, crafting SP instruments will target the root causes of malnutrition by improving diets, health, and care practices through education and women empowerment. Moreover,

increasing household income through cash transfers, insurance, and subsidies will ensure families can afford nutritious food⁵. The strategies will also be incorporated into the Regional Plan of Action for Nutrition.

In addition, the RDC SCSD/SP will monitor its endorsed resolutions encouraging LGUs to include nutrition interventions in their local investment programs. RDC passed Resolution No. IV-A-34-2022: Endorsing the Nutrition Champions Program for Adoption and Support of the Local Government Units. It also passed Resolution No. IV-A-101-2020: Endorsing to the Local Government Units Included in the ECCD-F1K Pilot and Expansion Areas the Inclusion of Early Childhood Care Development-First 1000 Days (ECCD-F1K) Program in Their Annual Investment Programs and Local Development and Investment Programs. Refer to Chapter 5.1 for more discussion on nutrition-related RDC Resolutions.

Outcome 2: Individual and lifecycle risks mitigated

Establish cash grants to cover disability costs and support full implementation of mandatory membership and exclusive package in the social health insurance program

Unaffordable and insufficient funding for disability costs continues to persist. Thus, the coverage of disability costs will be expanded, and cash grants will be provided to beneficiaries. This will ease the economic burden of families caring for someone with a disability. The government will provide disability support allowance and extend mandatory membership coverage and appropriate PhilHealth benefit packages.

Cash grants were also initiated through the *Kapangyarihan at Kaunlaran Sa Barangay* Cash-for-Work program under *Kapit-Bisig Laban sa Kahirapan*-Comprehensive and Integrated Delivery of Social Services-National Community-Driven Development Program (KC-NCDDP) of DSWD.

In addition, the government will partner with the private sector to expand available digital payment platforms. These will make disability-related products and services, such as disability insurance, more accessible anytime, anywhere.

Ensure full and effective implementation of laws that protect women

The region will conduct awareness campaigns on gender-based violence and related laws such as the Anti-Violence against Women and Their Children Act of 2004, the Safe Spaces Act, and the Expanded Anti-Trafficking in Persons Act of 2022, among others. In addition, regional campaigns and fora such as Gender and Development Convention, Women's Month, and Men's Forum will continuously be organized to effectively strengthen the implementation of these laws and disseminate information on women's rights, gender-based violence laws, and available programs and facilities for women victims.

For effective implementation of targeted interventions for Violence against Women and Children (VAWC) victims, the region will institutionalize the VAWC data collection system harmonization. Project Lila⁶, a campaign launched by DSWD Region IV-A during the pandemic, provides various options for reporting incidents of violence and abuse through text messaging and email. Incidents that may be reported are physical, psychological, sexual, or financial abuses.

The Commission on Human Rights will utilize and promote its e-Report sa Gender Ombud 7, an electronic reporting portal to monitor and respond to Gender-Based Violence (GBV) while implementing the Enhanced Community Quarantine in the country. The site also features GBV maps by sector and type and Philippine National Police Crime Incident Reporting and Analysis System heat maps by region. The Bawal Bastos Reporting Portal⁸ is an addition to the e-Report sa Gender Ombud portal, which aims to document the violations under the Safe Spaces Act. The page is still a pilot launch for the NCR. Thus, only barangays from the

NCR will be specifically tagged/geolocated. These portals were developed to provide an accessible platform to facilitate reporting, referral, response, and documentation of GBV.

Project ROSETTA (Real-Time Online Sexual Exploitation and Trafficking Tracking and Alert System Database and Profiling System) captures conversations in cyberspace that suggest sexual exploitation, trafficking, and related offenses. Data gathered are presented through a dashboard, which can be useful in enforcing GBV laws and tracking cases⁹. A national and regional focus will be considered in future development or adaptation of the system.

Full implementation of the 2017 Rules on Administrative Cases in the Civil Service and strengthening the role of the Committee on Decorum and Investigation in the government sector will be pursued to ensure the protection of women in government service.

Ensure SP access in geographicallyisolated and disadvantaged areas

To attain inclusive development, national and local governments will ensure that basic services reach individuals and families in GIDAs. The PhilSys will also expand its coverage to improve access to marginalized sectors such as IPs, PWDs, and communities in GIDAs. One of the SP benefits that GIDAs may access is quality and affordable healthcare through PhilHealth. Among the GIDAs in the region are: a) Lobo and San Nicolas in Batangas; b) Jomalig, Buenavista, San Francisco (Aurora), Patnanungan, San Mulanay, Narciso, Panukulan, Burdeos, Tagkawayan, Macalelon, General Nakar, General Luna, Quezon, and Guinayangan in Quezon. These areas are also among the least developed municipalities based on the 2015 and 2018 small-area poverty estimates.

Enhancement and creation of market linkages and physical infrastructure will also be pursued to ensure that the general population in GIDAs is capacitated to mitigate possible hazards and income loss. The DICT will prioritize providing access to the "Free WiFi for All" Program of GIDAs. They will also intensify efforts to bring the Tech4Ed program closer to the people, especially to the isolated groups.

Ensure safe and orderly overseas migration

OWWA will continue to oversee OFWs' safe, regular, and orderly migration. The government will ensure proper and legal documentation on migration processes. Coordination among concerned line agencies such as the Department of Foreign Affairs (DFA), Department of Migrant Workers (DMW), DOLE, OWWA, and Commission on Filipinos Overseas will also be strengthened.

Local government units will continue to conduct information campaigns, orientations, and seminars on anti-illegal recruitment and anti-trafficking in person, employment services, and safe migrations. In coordination with OWWA, provinces will also strengthen or establish their provincial OWWA desks to address the concerns of OFWs in their localities.

For repatriated OFWs, the Repatriation Assistance Program will continue to provide assistance, temporary shelter, counseling and debriefing, and transport arrangements to distressed OFWs¹⁰. The OWWA and the Provincial Committees on Migration and Development (PCMDs) will ensure that these individuals are successfully reintegrated into the community. Migration and development (M&D) will be mainstreamed in crafting regional and local development plans. They will continue to be part of the major

advocacies of the Committee on Migration and Development (CMD).

Moreover, as part of the Balikabayanihan Campaign launched during the 2021 M&D Forum, Atikha, in partnership with government agencies and PCMDs, conducted the Start and Improve Your Business Training (SIYB) which aims to assist OFs and their families in building their businesses. Atikha, in partnership with SUCs, will continue to conduct its Microbusiness Training for OFs focused on small business development needing capital ranging from PHP20,000 to PHP100,000.

The *Balikabayanihan* Mobile Application also serves as a tool for OFs to be informed of the available programs and services of agencies and provincial CMDs.

The provinces will continue with their reintegration programs such as a) Cavite Reintegration Program for Repatriated OFWs or CARE OFWs; b) inclusion of budget for financial assistance in Batangas' Annual Investment Plan and Annual Procurement Plan; c) conduct of skills training and livelihood programs to OFs in Rizal and Laguna; and d) conduct of regional forum on Safe Migration and Case Management during the pandemic in Quezon, among others.

Implement a holistic approach in addressing child labor

Looking at the issue of child labor in a whole-of-government approach also means addressing underlying issues emanating from the socioeconomic, cultural, and political aspects of society. Limited data on child labor is a major challenge in gauging its prevalence in the region. This can be addressed through the continuous expansion of DSWD's Strategic Help Desk for Information, Education, Livelihood,

and Other Developmental Interventions (SHIELD) in all LGUs, which can gather data such as cases of child labor. Specifically, community desks and their specific programs will focus on issues such as children in the informal economy and child labor in its worst forms (e.g. exploitation, child abuse, etc.). CALABARZON, particularly the Municipality of Catanauan, Quezon, was among the areas that conducted the pilot implementation of the project in 2017-2019. The DSWD aims to replicate the project in other LGUs, especially those with high incidence of child labor.

Other strategies are a) continuous profiling of child laborers in the barangay and continuous monitoring of SHIELD beneficiaries towards their eventual withdrawal from child labor; b) strengthening of case management for the child laborers and their families; c) strengthening of advocacy activities in the community toward prevention of child labor; d) establishment of linkages/partnerships with other stakeholders to maximize resources in the community; and e) effective and efficient delivery of appropriate and gender-sensitive multidisciplinary services, rehabilitation, re-integration services, and other after-care support for child laborers and their families, including during emergencies, among others.

DOLE will also continue to provide livelihood assistance to parents of child through DOLE's Integrated laborers Livelihood and Emergency Employment (DILEEP). Under DILEEP. Program beneficiaries should not allow their children to be engaged in child labor. The livelihood assistance provided can be in the form of starter kits or materials to start livelihood undertakings.

DOLE will also continue implementing its Child Labor Prevention and Elimination Program (CLPEP), which aims to remove children from the worst forms of child labor. The program contributes to the Philippine Program against Child Labor of the national government. These include interventions to eliminate or prevent child labor by promoting child-focused actions, a rights-based approach, cultural sensitivity, children and youth participation, and sustainable development. Under CLPEP, DOLE also hires people to profile child laborers and identify children to be referred to appropriate agencies and organizations for the necessary services and interventions to remove them from child labor. DOLE Region IV-A also provides training to newly-hired child laborers.

DOLE will also consider reactivating the CALABARZON Child Labor Committee and include the implementation of the SHIELD project as one of its advocacies. The Regional Inter-Agency Committee on Anti-Trafficking and Violence against Women and Children and Regional Inter-Agency Council against Child Pornography chaired by DSWD also discuss and monitor concerns on human trafficking, child pornography, and violence against women and children in CALABARZON.

To further support the implementation of VAWC laws, Quezon Province will continue to conduct the Search for the Most Child-Friendly and Violence against Women-Responsive LGUs.

Protect children from physical and mental distress

All children will be protected against situations that may cause physical and mental distress, as these experiences can affect their development in the long run. This entails strengthening the implementation of ongoing targeted interventions on poverty reduction and rehabilitation from trauma. Programs will continue to address current gaps in children's nutrition, education and healthcare, and other childcare facilities.

Advocacy on the Convention on the Rights of the Child will be intensified. Regional nutrition programs will also be sustained to reduce stunting and wasting of children. Mental health and psychosocial services will also be provided to children, especially those left behind by OFW parents and those who have experienced trauma during disasters. Through its Mental Health and Psychosocial Support Program, the DOH will continuously promote mental health and provide psychosocial care intervention.

Moreover, there is a need for comprehensive socio-demographic data on street children for the provision of assistance. Regional line agencies such as the DSWD, DepEd, DOH, DILG, and the Philippine National Police (PNP), among others, will include street children in the targeting under the implementation and enforcement of programs and ordinances for the protection

of children's rights. The Council for the Welfare of Children (CWC) will continue to monitor and evaluate the attainment of regional outcomes as stated in the Philippine National Multi-Sectoral Plan for Children in Street Situation 2021–2025. Youth organizations, in partnership with government agencies such as the DSWD, will play a part in the reintegration of these children by involving them in community projects and activities to improve human capital.

Issues and concerns on the welfare of children will also be continuously discussed and addressed by the RDC through its Regional Sub-Committee for the Welfare of Children (RSCWC). Similar to the RSCWC, the DSWD also spearheads the Regional Juvenile Justice and Welfare Committee, which promotes and protects the rights of children in conflict with the law.

Outcome 3: Economic risks managed

Increase coverage and benefits of unemployment insurance

Current programs by GSIS, SSS, and PhilHealth will be reviewed, and alternative schemes to increase coverage and benefits will also be proposed.

This will be supported by implementing PhilHealth's Comprehensive Primary Care Package and roll-out of diagnosis-related groups. To encourage SSS membership and help ensure the social security protection of the informal economy workers and other individually-paying members, SSS launched the flexible payment schedule and the Contribution Subsidy Provider Program (CSPP) in 2022. The planned payment schedule for the said types of workers will provide a longer payment window for them, where contributions for any of the last 12 applicable

months may still be paid in the current month. Meanwhile, under CSPP, SSS may partner with potential contribution subsidy providers among private and government entities who will pay contributions on behalf of selected self-employed workers, land-based OFWs, and voluntary members.

There is also a need to make the SP framework more inclusive by expanding social insurance to cover the unemployed and the informal sector workers.

Moreover, benefits from unemployment insurance will encourage spending among low-income workers. Data infrastructure such as the PhilSys will contribute to the seamless processing of payments. To make unemployment insurance more accessible, digital platforms such as GCash can be utilized.

Strengthen livelihood and cash-forwork programs implemented by various government agencies

Guidelines and standards in providing livelihood and cash-for-work programs by national agencies like DSWD, DOLE, and DA, among others, will be strengthened through the LGUs (e.g., guidance on SP program delivery and localization of SP Plan). These may also include guidelines on managing political interventions, especially with changes in administration. Also, the regional offices will adopt the national government's rationalization of the said programs to avoid duplication of overlapping and duplicative SP programs.

DSWD's Sustainable Development Program (SDP) will continue to support microenterprises and enable access to appropriate employment opportunities. Graduates of the 4Ps are also the target beneficiaries of SDP and other DSWD programs, such as the Supplemental Livelihood Program, Assistance to Individuals in Crisis, etc. DSWD and other partner agencies vowed to continuously assist the graduating beneficiaries in their journey to becoming self-sustaining individuals.

Public-private partnerships will also play significant roles in maximizing the potential of the value chain, especially in communities reliant on its agricultural and fishery resources.

Expand coverage of free agricultural insurance for qualified farmers and fisherfolk

An updated Registry System for Basic Sectors in Agriculture by the DA Region IV-A will facilitate the identification of possible beneficiaries for the expanded free agricultural insurance products. The provision and expansion of coverage of agricultural insurance products will also be facilitated by

the Philippine Crop Insurance Corporation (PCIC). This will aid in stabilizing the incomes of farmers and fisherfolks by minimizing losses in agricultural produce and maximizing access to government credit programs (See Chapter 7).

Develop a comprehensive pathway for returning Overseas Filipino Workers (OFWs)

The absorptive capacity of OF-serving agencies will be improved by streamlining agencies' operations and enhancing their workforce utilization to cater to OF's needs better. Returning OFWs may avail themselves of OWWA's insurance program (e.g., repatriation cost).

The promotion of mainstreaming of M&D in local development planning will also be intensified. This will address reintegration challenges brought about by the pandemic and other future shocks.

Batangas Province has also established the Batangas Provincial Migrant Center, the first Provincial Migrant Center in the country, which aims to provide psychosocial interventions and serve as a venue for economic opportunities creating by and expanding livelihood opportunities through investments, job matching, and microenterprise development. To all provinces in the region have already one-stop-migration established their resource centers (OSMRCs) with regular funding from the local government. The OSMRCs and Provincial Migration and Development Committees regularly report their accomplishments to the CMD.

Outcome 4: Natural, health, climate, and human-induced hazards mitigated

Strengthen products and SP programs and introduce relevant products in responding to the pandemic and other health hazards

Learnings from the COVID-19 pandemic experience, Taal Volcano eruption, typhoons, etc., highlight the importance of strengthened coordination in providing social welfare services and implementing SP programs for all. Strengthened coordination with the private sector and institutionalized SP roadmaps will facilitate the delivery of SP services, such as introducing and producing necessary health-related products protective personal equipment and vaccines that are critical in the response. Several agencies like DOH, DSWD, and DTI will also strengthen the implementation of SP programs and establish "triggers" for other types of shocks aside from disasters (e.g., health and economic shocks).

The DSWD will continue implementing social pension programs, livelihood assistance grants, and assistance to individuals in crisis situations. Relief assistance in terms of providing food and non-food items and financial assistance will also be provided in the early recovery stage. The social safety nets such as life and health insurance have been recognized during the pandemic and other disasters. GSIS and SSS will continue to provide life and health insurance, and emergency and calamity loans to their affected members.

Other strategies to respond to disaster, as mentioned in the CALABARZON Regional Recovery Programs, is the creation of policies and protocols to ensure a holistic and integrated delivery of social services (e.g., establishment or identification of convergence

points to serve as donation/information hubs). This can be supported by strengthening convergence among government, civil society organizations, and the private sector.

Develop and implement an anticipatory delivery mechanism for various types of disasters and emergencies

Social safety nets will be in place to ensure that vulnerable groups are more resilient against economic shocks and calamities. The Office of Civil Defense (OCD) and LGUs will strengthen the functionality of its Disaster Operations Center/Offices and assist LGUs in updating their disaster plans. DSWD will also continue to provide capacity-building for LGUs. (e.g., Annual Camp Coordination and Camp Management training for LGUs, on Reorientation Disaster Response). Capacity, capability, and level of awareness Barangay DRRMCs, barangay of the volunteers, and other stakeholders will also be strengthened to ensure disaster preparedness and resiliency of the whole region. This can be done by regularly conducting various capacity-building activities and establishing a harmonious relationship among provincial, city, municipal, and barangay government units for better coordination during disaster response activities.

The DILG, DHSUD, and OCD will review and provide technical assistance to LGUs in the formulation of Climate Change/Disaster Risk Reduction Management (CC/DRRM)-enhanced CLUPs, Comprehensive Development Plans, Local DRRM Plans, Provincial Development and Physical Framework Plan, among others. The OCD and LGUs will ensure that hazard and

health standards in land use and housing development are incorporated into the plans.

In coordination with the DOST, early warning systems (EWS) innovations will also be explored. Innovations on EWS will be disseminated through information, education, and communication campaigns and drills, including communities in far-flung areas, to make scientific and technological advancements inclusive to all.

Further strengthen coordination and collaboration among Regional Disaster Risk Reduction Management (RDRRMC), LGUs, private/civil society sector

The region still needs to strengthen its DRRM and Climate Change Adaptation efforts since it has yet to achieve zero casualties during disasters. There is a need to intensify coordination on DRRM and increase DRMMC coverage of disaster-related training for LGUs. The region will also push for proactive preparedness and intensify information and advocacy campaigns to ensure that everyone up to the *barangay* levels is informed on the protocols during disaster events.

Aside from the capacity-building activities, the region aims to organize response clusters to provide assets and resources in the provinces (e.g., food, evacuation centers, health, logistics, etc.) during emergency response operations.

Ensure the implementation of mental health and psychosocial services in the disaster response package

To lessen the stress and trauma experienced by disaster-affected individuals and families, the DSWD will continue to conduct psychosocial services for adults and play therapy for children in evacuation centers. Victims, especially children impacted by disasters have different sensitivities and responses in dealing with post-disaster trauma. Therefore, mainstreaming post-disaster mental health and psychosocial services is integral to disaster response. Agencies like DOH and DSWD will deploy medical and social welfare professionals in evacuation centers and residences. Including mental health and psychosocial support in disaster preparedness, response, and recovery plans will also be considered.

Establish permanent and resilient evacuation centers

To minimize the use of classrooms as evacuation centers during calamities, LGUs prioritize the establishment will responsive permanent and evacuation Appropriate/minimum centers. facilities based on standards outside the high-risk areas will be built to shelter the affected families. Aside from being permanent and typhoon- and earthquake-resilient, evacuation centers will be designed to cater to the well-being of children, women, persons with disability, and the elderly (e.g., provision of designated comfort rooms for males and females and for persons with disability). The government will also ensure that permanent resettlement equipped with basic utilities is in place. Livelihood opportunities will be made available to guarantee the sustainability of these areas.

Camp In addition. the Provincial Coordination and Camp Management (PCCM) Cluster ensures that all requirements needed in managing evacuation centers are being met and that the delivery of services is well-coordinated. In Batangas Province, the PCCM cluster also identifies evacuation centers considering the following: a) the number of families/ persons who are in actual danger needing immediate movement or transfer to safer areas, and b) the number of families/ persons who are potentially at risk in the neighboring areas likewise needing evacuation.

Outcome 5: Governance and political risks addressed

Prepare anticipatory shockresponsive plans for internally displaced persons (IDPs) and persons of concern (POCs)

The government will ensure that the socioeconomic impacts of development projects are properly accounted for since these will be the basis for formulating responsive plans and recovery strategies even in the worst-case scenarios. Establishing a dynamic registry, intensifying existing EWS, and conducting capacity-building activities are significant approaches to mitigate the impacts of disasters and calamities on IDPs and POCs.

DSWD will continue to address concerns on IDPs and POCs as the lead agency of the IDP Protection Cluster and Camp Coordination and Camp Management Cluster. IDPs and LGU responders will be provided with psychosocial processing.

Support to implementation of Executive Order (EO) 163 s. 2022 (Protection Services for POCs) and RA 11188 (Special Protection of Children in Situations of Armed Conflict)

EO 163 will continue to protect the fundamental rights of POCs, including their community integration. In implementing RA 11188, one major challenge is that there are data gaps on children in armed conflict. Having baseline data is important when crafting specific strategies to address. The government will also provide the necessary resources to implement the new law (See Chapter 14.2).

Legislative Agenda

Table 5.2.1 presents the region's priority legislative agenda to strengthen social protection.

Table 5.2.1 Legislative Agenda to Strengthen Social Protection

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Disability Support Allowance	The bill seeks to grant a cash subsidy to supplement the incomes of households with persons with disability.	DSWD
	This will support the insufficient funding for disability costs. The program will assist eligible individuals in meeting their basic needs and accessing education, employment, and opportunities.	
Universal and Integrated Social Protection System	iversal and Integrated cial Protection System SP Framework aims to rationalize SP programs, in particular, it aims to: recognize SP as a basic right provided by the state institutionalize SP floor establish effective coordination structures mandate a central registry of beneficiaries of SP programs establish sharing of delivery and payment platforms forge sustainable financing assured and partnerships with private and civil society sec	
	The region will adopt the SP indicators included in the approved framework. They will support the attainment of the strategy on establishing a standard menu of rationalized programs for the SP floor guarantees. This will also address the challenge of delays in the delivery of assistance of SP programs, especially during disasters and emergencies.	
Magna Carta of Workers in the Informal Economy	The bill provides rationale and recommendations for upholding workers' rights in the informal economy, particularly women informal workers and other marginalized groups, and for providing measures for their transition from the informal to the formal economy towards realizing decent work for all.	PCW, Private Sector
	The bill's implementation can be further supported through the RDC-PSRs member representing the labor sector.	
Crisis Intervention Program Bill	This bill aims to institutionalize the Crisis Intervention Program, a Social Protection and Safety Net that provides immediate intervention to the effects of economic shocks, disasters, and calamities, especially on specific vulnerable groups.	DSWD
	The institutionalization of the Crisis Intervention Program will reinforce DSWD's capacity to implement programs such as the Assistance to Individuals in Crisis Situations (AICS) by creating a Crisis Intervention Office (CIO) in the LGUs.	
	Establishing ClOs will strengthen and enhance the existing delivery system of DSWD to benefit the poor, marginalized, and vulnerable/disadvantaged individuals/families, especially those from remote areas in the region. This can contribute to the elimination of pockets of poverty in the region.	
Child Support Responsibility Act of 2022	The passage of the bill is essential to reduce a situation where more and more children are in difficult, precarious and financially insecure conditions caused by the absence or lack of support from absentee parents.	DSWD
	With the provision of child support from the fathers of the children, the prevalence of child laborers in the region will be reduced or eliminated.	
Senate Bill No. 940, or Evacuation Center Act	The law aims to establish permanent and typhoon-resilient evacuation centers with necessary facilities to avoid using classrooms during calamities. These centers should also consider in their design the welfare of children, women, and the elderly.	OCD
	The region still needs to achieve its target of zero casualties during disasters and emergencies. The increased intensity of disasters and the limited resources in the region hampers the achievement of the target. Establishing safe locations as permanent evacuation centers with appropriate facilities for vulnerable groups (children, senior citizens, etc.) will minimize the risks of further casualties.	

Results Matrix

Table 5.2.2 presents the indicators and targets within the plan period to strengthen social protection.

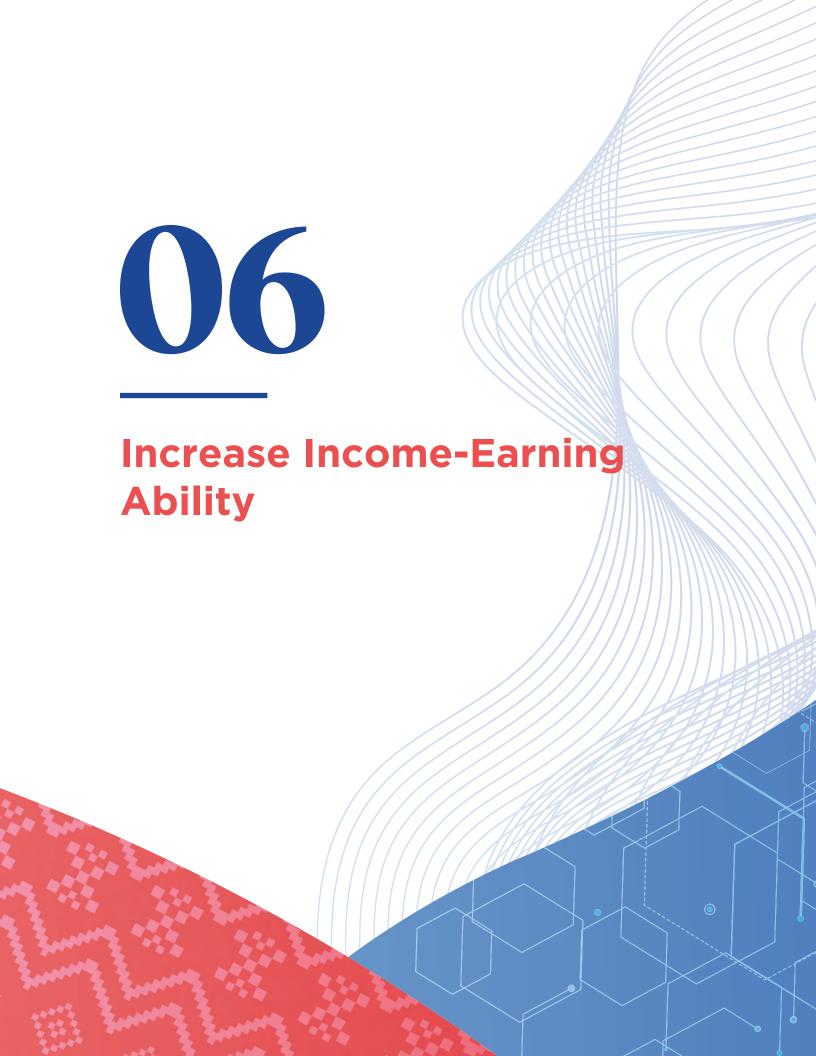
Table 5.2.2 Results Matrix: Strengthen Social Protection

INDIGATOR	BASELINE TARGETS					RESPONSIBLE AGENCY/			
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY	
Percentage of poor households with members 18 years old and below that are 4Ps beneficiaries	100% (2021)	100%	100%	100%	100%	100%	100%	DSWD	
No. of eligible senior citizens covered by social pension (Senior Citizen's Law) increased	314,239 (2021)	333,279	333,279	337,689	344,157	347,599	351,075	SSS, GSIS, DSWD, PSA, National Commission Of Senior Citizens (NCSC)	
No. of functional community help desk on child labor established *	3 (2021)	5	7	9	11	13	15	DSWD	
Percentage of population with PhilHealth coverage	92% of 9.2 million (2021 midyear population of PSA)	100%	100%	100%	100%	100%	100%	PhilHealth	

^{*} Additional two help desks every year

Endnotes

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- 8 Safe Spaces Report. e-Report sa Gender Ombud. https://www.gbvcovid.report/landing/safespacesreport
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Increase Income-Earning Ability

This chapter focuses on enhancing income-earning ability by increasing workforce employability by: a) providing modern, responsive, and labor market-informed training and education; b) expanding access to employment opportunities for career and employment facilitation support; and c) achieving shared labor market governance to promote a responsive, fair, and efficient labor market.

Assessment and Challenges

The CALABARZON Region continues to recover from the negative impacts of the COVID-19 Pandemic. As of October 2022, the region's employment rate improved at 93.4 percent¹ after dipping to 89.7 percent in 2021 and 88.4 percent in 2020² because of the negative economic impacts of the COVID-19 pandemic. Consequently, the unemployment rate in the region decreased after reaching 11.6 percent in 2020 and 10.6 percent in 2021³ to 5.7 percent as of October 2022. This is a notable improvement considering the 6.5 percent average unemployment rate before the COVID-19 pandemic crisis, 7.0 percent in 2017, 6.6 percent in 2018, and 6.1 percent in 2019 based on the Labor Force Survey of the PSA. However, underemployment continues to increase from 11.7 percent in 2019 to 17.2 percent in 2020 and 2021.

Employment continues to be disrupted by megatrends which require new skills and **competencies.** While there are improvements in the employment situation in the region, the labor market still faces challenges brought by megatrends such as digitalization, automation, the adoption of artificial intelligence, climate change, and the prolonged COVID-19 pandemic. Each megatrend has a varying impact on workforce skills and competency employed requirements. Workers elementary occupations, estimated to be at 22.4 percent in 20204, are at greater risk of automation and digitalization.

Limited employment opportunities for the marginalized sector due to market shocks brought by the COVID-19 pandemic. The COVID-19 pandemic not only affected those in the labor market but also led to disruptions and challenges in youth education and training, employment, earnings, and job search which may weaken the employability of the younger workforce (referred to as the "lockdown generation") in terms of character and technical and soft skills development.

Despite the improved employment facilitation services, the proportion of youth not in employment, education, or training was 18.3 percent in 2019 and 18.8 percent in 2020⁵. Meanwhile, the female unemployment rate increased by 3.8 percent from 5.9 percent in 2019 to 9.7 percent in 2020. While this is an improvement in female labor force participation, there is still a need to provide more meaningful employment opportunities for women to fully maximize their potential in development and nation-building.

Skills mismatch remains a concern. Ensuring that workforce skills and education match the changing skills demand and requirements in the labor market remains a concern despite the initiatives to strengthen AIL in the region. Additionally, tracer studies to follow youth employment as well as skills-occupation and changing qualifications mapping, which may serve as a basis for

enhancement of employment and education programs, remain limited.

Demands and challenges resulting from emerging digital careers. The COVID-19 pandemic paved the way for the growing gig economy because of the continued shift to digital platforms and greater reliance on gig workers. The gig economy provides workers with a more appealing opportunity due to its flexibility. However, the 2022 World Digital

Competitiveness Ranking reveals that the Philippines lags behind its regional peers in technological transformation, which continue to change job requirements, leading to work arrangements or increased demand for managerial, technical, and digital skills and qualifications.

Strategy Framework

Among the strategies to improve the income-earning ability of the labor force include linking the education system with current and emerging labor market demand and strengthening training development programs to enrich credentials, skills, and competencies to improve workforce employability. It is also imperative to expand access to employment opportunities by anticipating the skills requirements of priority sectors and integrating and strengthening employment facilitation services and career development support and guidance. Furthermore, enhancing labor market governance through shared responsibility may be achieved by increasing collaboration between the government and private sectors to promote and implement employment strategies and policies at the local level.

Ŷ	DEVELOP AND PROTECT CAPABILITIES OF INDIVIDUALS AND FAMILIES						
O D C	INCREASE INCOME-EARNING ABILITY						
	EMPLOYABILITY INCREASED) 🕝	ACCESS TO EMPLOYMENT OPPORTUNITIES EXPANDED				
	Align development objectives for basic, TVET, and higher education based on labor market requirements	0	Integrate and strengthen all employment facilitation services, including career development support				
	Update contents of training standards, modules, and curricula for human capital development based on emerging, in-demand, and hard-to-fill occupations in identified key employment generators	•	Strengthen technical capacity to develop dynamic and responsive labor market information systems				
	Develop modern and responsive TVET, apprenticeships, and higher education aligned with emerging trends or demands in the labor market	0	Anticipate skills needs in priority sectors				
	Increase investments in TVET human resources, higher education, digitalization initiatives, and innovation facilities	0	 Intensify employment programs for the youth marginalized, disadvantaged, and vulnerable sectors 				
	Promote lifelong learning	0	Develop programs and policies that address a forms of labor market discrimination in work,				
	Establish skills assessment mechanisms and certification programs to recognize prior learning		education, and training				
	Strengthen collaboration with industry boards and industry associations in TVET	0	Provide emergency employment and training support to displaced workers due to human- induced disasters and natural calamities				
	Align professional standards and licensure examinations with international standards	0	Maximize the utilization of PESO				
	Strengthen government-private partnership on TVET	0	Provide updated labor market information to PhilJobNet				
	Intensify participation in youth employability programs	0	Share and disseminate information on				

SHARED LABOR MARKET GOVERNANCE ACHIEVED

- Harmonize skills development programs in the government
- Strengthen linkages and collaboration among government and industry associations, enterprises, and social partners to emphasize shared responsibility in promoting and implementing employment policies and strategies
- Advocate and strengthen tripartite and bipartite social dialogue
- Design mechanisms to ensure inclusive participation and equitable access to education and skills development programs
- Mainstream gender and green competencies
- Integrate lifelong learning processes in human resource development programs
- Create awareness of TVET programs implemented by the government
- Actively participate in government-industry associations promoting and implementing employment and skills development policies and strategies

Strategies

Outcome 1: Employability increased

Align development objectives for basic, TVET, and higher education based on labor market requirements

Review and align education and training curricula vis-à-vis labor market requirements. The CALABARZON RDC, through the concerned Committee, will

continue its initiatives to review and ensure the alignment of training and education curricula with current and emerging labor market trends in priority and strategic sectors of the region. A technical working group (TWG) composed of TESDA, CHED, DepEd, DOLE, LUCs, SUCs, HEIs, private technical vocational institutions (TVIs), LGUs and representatives

emerging, critical, and in-demand skills

from employers and industry boards and associations, will be created to spearhead the comprehensive review and alignment of education curricula and training based on labor market requirements. This is necessary to capacitate the labor workforce to better participate in economic opportunities while achieving their desired employment and mobility outcomes.

Formulate regional qualification standards and level of skills framework. The RDC, through the above-cited TWG, will lead the formulation of local or regional qualification standards and levels of skills and qualifications of the major industries in the region. This framework is similar to the Philippine Qualifications Framework (PQF) and Philippine Skills Framework (PSF).

The framework will serve as a reference for the education and TVET sectors in delivering region-specific program interventions to assist and support academic and worker mobility and address skills mismatch. This will also serve as a reference for the workforce from other regions interested in working in CALABARZON. Nevertheless, the PQF and PSF will be cascaded as the main reference for providing and updating training and education programs to increase workforce mobility.

Skill-occupations mapping. The SUCs will be tapped to conduct studies and skills-occupations mapping to identify skills mismatch and measure qualification and skills progressions' contributions to the income-earning ability of the workforce in the region. This will be done in coordination with industry boards/enterprises to consider industry demands.

Update contents of training standards, modules, and curricula for human capital development based on emerging, in-demand, and hard-to-fill occupations in identified key employment generators

Review and updating of TVET programs vis-à-vis industry skills and competency through demand. The RDC, DepEd, DOLE, and TESDA, will initiate the comprehensive review and updating of key technical and vocational education and training programs, qualification certifications, and company-based training to match and address skills and competency demand in strategic and priority sectors of the region. Benchmarking activities on skills standards, competency assessments, and certifications may be conducted to ensure consistency with national and international standards. Moreover, human resource development and planning improvements in the government and private sectors will be promoted to ensure quality instruction.

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

Increase collaboration with the private sector. The DOLE, TESDA, CHED, and DepEd regional offices will collaboration with private firms institutions in CALABARZON to design more modern, up-to-date, and responsive employment, education. and capacitybuilding programs based on priority industries' current and emerging skills requirements. Meanwhile, DOLE, together with other key agencies and concerned private organizations, will lead the review and recommendations provide enhance existing labor and employment policies (e.g., amendments to current apprenticeship law).

Identify and monitor in-demand skills. DOLE will lead the identification and of in-demand skills monitoring in coordination the industry with and academe sectors in the region through the timely updating and reporting of the Labor Market Information. Among the indemand digital skills based on the 2022 Technology Information and Business Process Management (IT-BPM) Near-Term Skills Demand Study are data analytics engineering, process automation, and business intelligence, artificial intelligence, cybersecurity, digital project management, social media management, data science, search engine management/optimization, and machine learning. Additionally, the subject study identified software development, programming languages, finance accounting, resource human analytics, medical coding, clinical research, game development, game art, 3D animation, and 2D animation as in-demand domain skills. These identified in-demand skills will be complemented by developing relevant TVET and higher education programs to ensure that the available workforce can cater to the needs of the industries. The RDC will lead the identification of priority TVET and higher education programs.

Increase investments in TVET human resources, higher education, digitalization initiatives, and innovation facilities

Modernize TVET and education facilities. Enhancing the quality of TVET human resources and human capital profiles is necessary to improve workforce employability in the priority and strategic sectors in the region. These can be attained by increasing investments in up-to-date training programs, monitoring and addressing local skills needs, and establishing and modernizing TVET and education facilities. TESDA, CHED, and DepEd will continue updating their curricula

and training programs and establish and modernize TVET and education facilities to comply with new competencies and skills demands resulting from economic and technological transformations in coordination with employers, industry organizations, and educational institutions in the region.

TESDA will modernize and maximize the utilization of the CALABARZON Regional TVET Innovation Center located in Batangas City.

Promote lifelong learning

Localization of lifelong learning programs and strategies. The RDC, through the regional offices of CHED, DepEd, and TESDA, will provide recommendations and support the development and promotion of a national policy for lifelong learning to increase workforce mobility to current and emerging trends in the labor market. Likewise, the LGUs will be encouraged to integrate lifelong learning programs and strategies in their local development plans to transform and promote inclusive learning at the community level.

Establish skills assessment mechanisms and certification programs to recognize prior learning

Assess and certify formal and informal skills and prior learnings. CHED, DepEd, DOLE, and TESDA will create the microcredentials marketplace based on the region's priority and strategic industry requirements. A skills assessment and certification program and mechanism will be established to certify outcomes of short-term learning experiences and recognize prior learning to increase workforce employability and professional value.

Furthermore, TESDA, CHED, and DepEd, in coordination with DICT, may further explore

the utilization of online learning modality to develop a targeted system enabling the workforce to acquire necessary microcredentials, competencies, certifications, or accreditations to increase employability and improve the quality of instructions in the academe and industry sectors in the region.

Strengthen collaboration with industry boards and industry associations in TVET

TVET-Industry linkages Strengthen and partnerships. Industry boards and associations are essential in attaining lifelong learning and skills development objectives by producing high-quality TVET and globally competitive human resources. As outlined in the National Technical Education and Skills Development Plan, TESDA will organize, strengthen and capacitate industry boards and associations to anticipate in-demand skills for development, design certification mechanisms, and formulate training regulations specific to the region.

Integrate industry-solicited technical skills requirements. The 2022 IT-BPM Near-Term Skills Study reveals that organizations require various essential skills or tools to support their operations and processes. These requirements should be recognized and considered in aligning education and training with labor market requirements, particularly in TVET programs, to increase the probability and competitiveness of the workforce being hired by bigger companies.

Implement Jobsfit action agenda 2022-2025 and conduct academe-industry dialogues. The RDC will continue its initiatives such as Jobsfit and Multi-Sectoral Consultation and Academe-Industry Dialogues to determine changing key employment generators, skills gap, human resource requirements, and industry perspective on the industry-academe gap. The Jobsfit Action Agenda for 2022 to 2025 will be drafted to guide and provide

strategies to align academe and training programs with industry needs. Among the priority industries in CALABARZON are: (1) electronics; (2) Information Technology and Business Process Management; (3) automotive; (4) metals; and (5) petrochemicals.

Align professional standards and licensure examinations with international standards

Adhere to international accreditation standards. TESDA, CHED, DepEd, and SUCs will update education and training curriculums to adhere to international accreditation standards, boosting the region's competitiveness and quality of education. This is necessary to increase the local and international mobility of the professional workforce.

Strengthen government-private partnership on TVET

Fortify networks among strategic and major industry players. Government-private partnerships on TVET will be strengthened to enhance the quality, effectiveness, and delivery of training programs. TESDA will lead the formation of networks among strategic and major industry players to develop necessary training programs to address the region's changing industry conditions and emerging skills needs.

Intensify participation in youth employability programs

Strengthen partnerships with educational institutions. The RDC will establish and strengthen partnerships among the SUCs, HEIs, LUCs, private TVET institutions, LGUs, and key government agencies such as TESDA, CHED, DepEd, and DOLE to revisit and update curricula to make these more responsive, institutionalize feedback

mechanisms, and provide orientations on recruitment strategies in the region.

Conduct tracer studies. TESDA, DepEd, CHED, SUCs, and LUCs will create student tracking mechanisms or conduct tracer studies to follow the employment status of their graduates vis-a-vis their educational background and technical-vocational skills completed, especially the graduates of the K-12 program. The study results will serve as basis to measure the actual school-to-work transition of the youth in the region.

Continue implementation of youth employment programs. DOLE, TESDA, and DILG will continue to provide youth employment bridging programs such as the Special Program for Employment of Students, Government Internship Program, Jobstart Philippines, Training for Work Scholarship Program, and First Time Jobseekers assistance program.

Outcome 2: Access to employment opportunities expanded

Integrate and strengthen all employment facilitation services, including career development support

Integrate employment systems. DOLE will lead the integration of all employment program monitoring systems, career counseling and development support, and labor market information system through the PhilJobNet to enhance target clients' user experience.

Returning OFs will be given access to the said services to facilitate their integration into the domestic economy. The RDC, through its CMD, will continue to strengthen its partnership with the private sector and support the implementation of M&D initiatives for the return and reintegration of overseas Filipinos in the labor market of the region. Among the ongoing M&D interventions in the region are the CALABARZON M&D Forum; Counter Trafficking in Persons Project; Corporate Responsibility in Eliminating Slavery and Trafficking Project; Innovations for Filipinos Working Distantly from the Philippines; Mt. Banahaw Agroforestry Project; and BalikaBayanihan Campaign which includes microbusiness training, mobile application, and SIYB training.

Update the career guidance advocacy program 2017-2022. The Career Guidance and Advocacy Program will be updated to set specific directions to address job-skill mismatch in the region. Career guidance and coaching are necessary to help the youth, among others, to broaden their horizons, develop self-awareness, and make informed decisions in choosing their education and career paths. DOLE and LGUs will ensure that career guidance interventions and education/training options are available in the region.

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

Map changing skills and qualifications. In addition to Skill-Occupation Mapping, SUCs will conduct studies and use digital technology to map changing skills and qualifications and layout pathways by designing a framework for the classification of similar jobs, skills, education requirements, or occupations to improve job mobility in the major industries in the region. SUCs will coordinate with industry boards/enterprises to consider industry demands.

Anticipate skills needs in priority sectors

Generate information on current and emerging skills. The results of the abovecited youth employment tracer studies and skills-occupation and changing skills and qualification mapping will serve as a basis to identify current and emerging skills requirements in priority sectors and industries. Among the major technology and economic transformation areas are automation, digitalization, artificial intelligence, augmented reality, adaptive learning, competency-based education, agriculture mechanization, and biobased inputs production.

Intensify employment programs for the youth, marginalized, disadvantaged, and vulnerable sectors

Institutionalize career guidance and coaching at the school level. The Career Guidance Advocacy Program will be institutionalized to immerse parents and students to labor market information and promote career guidance and coaching tools to address job-skill mismatch. Additionally, the Revitalized Homeroom Guidance Program, active partnership with the Network of Career Guidance Counselors and Advocates and PESOs, and capacity-building programs will be reinforced to strengthen career guidance and coaching at the school level.

Deliver area-based, demand-driven skills. DICT will continue and expand its countryside digital learning program to complement and support the delivery of local or area-based, demand-driven skills, especially in GIDAs where labor information and internet access are limited. Likewise, the LGUs' Community Training and Employment Coordinators will be institutionalized to support the devolution strategies of TESDA. Moreover, DOLE and TESDA will coordinate with the Bureau of Jail Management and Penology (BJMP) to design

and implement employment and productivity convergence programs for persons deprived of liberty.

Continue implementation of youth employment interventions. Among priority interventions that will be implemented to intensify employment programs for the marginalized, disadvantaged, vulnerable sectors include the Special Program **Employment** Students, for of **JobStart** of Life-Skills Philippines, Mainstreaming Training in Basic Education and TVIs, Immersion Program, On-the Job-Training and the Career Development Support Program.

Enhance network among TVET and educational institutions. Linkages among TESDA, DepEd, PESOs, educational institutions, and private TVIs will be strengthened to improve cascading of active labor market programs, promote TVET, and facilitate easier job search to improve the labor force participation of youth, women, IPs, and PWDs in the region.

Develop programs and policies that address all forms of labor market discrimination at work, education, and training

Build an accessible labor market discrimination reporting system. DOLE will create an improved mechanism for consolidating and reporting complaints related to labor market discrimination in the region. This is necessary to strengthen implementation and monitoring and further identify policy gaps and interventions to address all forms of discrimination at work, education, and training.

Intensify implementation and monitoring of policies against labor discrimination. DOLE will continue implementing and monitoring policies, laws, and institutions designed to promote equal employment opportunities for

the region's full-time and part-time workers, especially those from marginalized sectors. In addition, pathways will be planned to facilitate workers' transition from part-time to full-time status or vice-versa.

Provide emergency employment and training support to displaced workers due to human-induced disasters and natural calamities

Convergence programs for displaced workers. Active labor market programs such as emergency employment and training support, are needed to build and enhance the resilience of displaced workers in the region. Among the notable programs designed to assist displaced workers are DOLE's *Tulong Panghanapbuhay sa Ating* Disadvantaged/Displaced Workers or TUPAD, and TESDA's training-for-work scholarship program.

DSWD, DOLE, and TESDA will study the possible convergence of their livelihood and community-based training programs to avoid duplication and address the region's needs effectively.

Maximize the utilization of PESO

Institutionalize PESO. DOLE will capacitate LGUs to strengthen and institutionalize the PESOs to improve accessibility and delivery of employment, career guidance, coaching, and training services to facilitate worker mobility in the region. The PESOs will also be mandated to assist in implementing the First-Time Jobseekers Assistance Act and JobStart Philippines. Additionally, PESOs' linkages will be strengthened to create a hub of information exchange on best practices in employment facilitation.

Of the 274,237 jobseekers registered in the PESO employment information system, 49 percent are in Laguna, 25 percent are in Quezon, 17 percent are in Rizal, five percent

are in Batangas, and four percent are in Cavite.

Increase investment in PESO. LGUs will be encouraged to increase their local budget allocation, primarily through digital platforms, for the maintenance, expansion, promotion, automation, and real-time updating of information in PESOs. Continued business engagement is necessary to sustain and improve the performance of PESOs.

Provide updated labor market information to PhilJobNet

Reinforce utilization of PhilJobNet. DOLE will intensify the conduct of technical assistance and encourage all employers (registered and unregistered) to actively utilize the PhilJobNet to enrich and produce up-to-date labor market intelligence and enhance data quality, especially in the major and strategic industries in the region. The provision of incentives will be explored to increase private sector participation.

Share and disseminate information on emerging, critical, and in-demand skills

Increase investment in labor market assessment tools. DOLE will encourage employers, industry organizations, and educational institutions to invest in labor market assessment tools and information systems. Government partnership with private stakeholders will allow information sharing to anticipate emerging skills requirements, inform key agencies to align educational, training, and skills policies and programs, and enhance regional market interventions.

Outcome 3: Shared labor market governance achieved

Harmonize skills development programs in the government

Harmonize skills development programs. DOLE and TESDA will conduct an inventory and review of all training programs for possible convergence to harmonize, maximize impacts and ensure the participation of concerned stakeholders in the region. Subsequently, impact evaluation studies will be done to assess program effectiveness and identify areas for improvement.

Strengthen linkages and collaboration among government and industry associations, enterprises, and social partners to emphasize shared responsibility in promoting and implementing employment policies and strategies

Strengthen the Academe-Industry feedback **mechanism.** The concerned RDC Committee will continue to promote the linkage and among government network agencies, industry associations, workers' organizations, educational institutions, and TVIs improve feedback mechanisms, promote innovative practices, and complement efforts to operationalize regional strategies and improve skills anticipation, identification, and certification.

Advocate and strengthen tripartite and bipartite social dialogue

Mitigate impacts of megatrends. The government will update its social dialogue plan considering the impacts of megatrends such as digitalization, automation, and climate change on the labor market. Meanwhile, the SUCs will conduct a study to determine the impacts and roles of megatrends on government and private organizations in terms of skill composition, qualifications, working conditions, health, and safety. The

study may also cover the implications to working conditions, job tasks, and responsibilities, among others, of the transition from routine-biased to skill-biased technological change of priority and strategic sectors in the region.

Design mechanisms to ensure inclusive participation and equitable access to education and skills development programs

Strengthen mechanisms and policies to ensure inclusive, responsive, and equitable access to education and skills development **programs.** In line with Republic Act No. 11551 or the Labor Education Act which was enacted in May 2021, CHED, TESDA, and DOLE will create a mechanism to ensure that all public and private HEIs and TVIs will integrate labor education as part of an elective course as well as conduct labor empowerment career guidance conference graduating students to promote and protect the rights of future workers, employers, and entrepreneurs. Labor education includes basic knowledge on labor rights and other skills in negotiation, fostering smooth interpersonal relations in the workplace, and mechanisms to redress grievances.

The CALABARZON Regional Tripartite Wages and Productivity Boards, through DOLE, will continue to monitor, enforce, and adjust the minimum wage to protect the lowest and most vulnerable wage earners in the region from poverty. Meanwhile, the RDC will monitor the implementation of the Universal Access to Quality Tertiary Education Act in the region.

Mainstream gender and green competencies

Mainstream green jobs and competencies. DOLE will lead the establishment and updating of a regional database of green jobs and skills, which will be used in implementing the Green Jobs Human Resource Development Plan to mainstream competencies following green negative impacts of climate change in the region. Likewise, TESDA, private TVIs, and educational institutions will integrate and mainstream green competencies in TVET and educational programs in the region as economies become more involved in greening processes and structures.

Strengthen interventions to promote female labor force participation. DOLE will continue to intensify its efforts to promote the female labor force participation rate and address gender bias and gender role stereotypes in basic and higher education materials, promoting entrepreneurship, and advancing economic opportunities for women by harnessing digital technologies in the region.

Integrate lifelong learning processes in human resource development programs

Promote the integration of lifelong learning in different organizations. To promote lifelong learning in different organizations, DOLE and TESDA will encourage employers

recognize prior learning outcomes micro-formal obtained in formal or training and provide relevant training to the workforce in the region. The integration of lifelong learning processes in human resource development programs will be beneficial for both employers and employees in terms of better organizational performance, productivity, and enhanced well-being.

Create awareness of TVET programs implemented by the government

Enhance marketing strategies. TESDA and TVIs will formulate marketing strategies and utilize digital platforms to promote available TVET jobs and skills required in the priority sectors and industries in the region.

Actively participate in governmentindustry associations promoting and implementing employment and skills development policies and strategies

Intensify IEC activities. TESDA will intensify information dissemination, and education activities to encourage social partners to participate and promote the region's employment and skills development policies and strategies.

Legislative Agenda

Table 6.1 presents the region's priority legislative agenda to increase income-earning ability.

Table 6.1 Legislative Agenda to Increase Income-Earning Ability

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Revised National Apprenticeship Program; Enterprise-Based Education and Training to Employment Act	It is imperative to make apprenticeship programs more attractive to both the enterprises and the prospective apprentices to promote skills acquisition and youth employment. This will be achieved by harmonizing existing Enterprise-Based Education and Training modalities and expanding company training programs (e.g., the combination of workplace training and classroom-based learning). This will increase youth employability and help address the challenge of having youth outside employment, education, or training.	TESDA
Jobs Creation Strategy Bill	The Bill will facilitate the development of employment recovery and job creation in specific industries and emerging sectors, such as but not limited to construction, tourism, agriculture, information technology and business process management, and manufacturing.	DOLE
Lifelong Learning Development Bill	The development of a Lifelong Learning Development Framework is necessary to ensure workforce competitiveness, mobility, and employability in the long run. This shall ensure that the workforce can adapt to the labor sector's changing skills and qualification requirements.	DOLE
Magna Carta of Workers In the Informal Economy	The bill aims to recognize and protect the rights of the vulnerable population in the informal sector, which includes home-based workers, vendors, small farmers and fisherfolks, small transport operators, non-regular construction workers, volunteer workers in government instrumentalities, waste recyclers, micro-entrepreneurs, among others. Among the rights and benefits that will be accorded to the informal sector are: [1] security of	DOLE
	and in the workplace; (2) equal access to education, skills training, and economic resources to develop self-reliance; (3) just and favorable work conditions; (4) maternity and paternity benefits, provided for by law; and (5) safe and healthy working conditions safeguarding general, occupational, and reproductive health.	
Phillobs Act of 2020	The bill aims to institutionalize the provision of a National Unemployment Insurance Program (NUIP). It will establish the Philippine Job Insurance Corporation to administer the Program and ensure its continued long-term effectivity and viability.	DOLE, SSS
	The NUIP will assist workers during an episode of unemployment.	
21st Century Skills Development Act	The act aims to establish a National Skills Development Program to provide universal access to training programs to enable the workforce to acquire skills required by current and emerging industries and economies. This will increase the employability and mobility of the workforce.	TESDA

Results Matrix

Table 6.2 presents the indicators and targets within the plan period to increase income-earning ability.

Table 6.2 Results Matrix: Increase Income-Earning Ability

INDIGATOR	BASELINE	TARGETS			RESPONSIBLE AGENCY/			
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY
Percentage of youth not in employment, education, or training [%] reduced	18.8% (2020))	decreasing			PSA			
TESDA Certification rate in priority sectors (%) increased	94.1% (2020)	increasing			TESDA			
No. of enrollees in TVET increased	257,002 (2019)	increasing			TESDA			
No. of Graduates in TVET increased	232,414 (2019)	increasing			TESDA			
Female labor force participation rate [%] increased	49.7% (2020)	increasing			PSA			
Individuals reached through the Labor Market Information increased	331,669 (2021)	increasing			DOLE			

Endnotes

- $\begin{tabular}{ll} 1 & Quarterly Labor Force Survey of the PSA which is preliminary and subject to change. \end{tabular}$
- 2 2021 Regional Social and Economic Trends
- 3 Preliminary results of the 2021 Annual Labor Market Statistics
- ${\bf 4} \quad {\sf Based \ on \ the \ 2021 \ CALABARZON \ Regional \ Social \ and \ Economic \ Trends \ (RSET)}$
- 5 Based on RSET

PART III

Transform
Production
Sectors to Generate
More Quality Jobs
and Competitive
Products



Modernize Agriculture and Agribusiness

Modernizing the Agriculture, Forestry, and Fishery (AFF) sector will contribute to the increase in the income level of farmers and fisherfolks as the primary producers. The region shall pursue a holistic agri-food system approach that considers AFF production as tightly linked to processing, marketing, consumption, and waste management by improving efficiency in AFF production, creating more opportunities for value chain segments outside primary production, developing the blue economy, and nurturing the local food culture toward improving agri-food system resiliency, empowering local farmers, and linking agri-fishery production to consumer nutrition and health of the environment.

Assessment and Challenges

Assessment

The performance of the AFF in the region needs to catch up as primary producers in the sector remain the poorest among the basic sectors despite some progress made by the government in reducing poverty before the COVID-19 pandemic. Previous gains by the sector bore the impact of multidimensional shocks arising from natural and biological hazards such as the COVID-19 pandemic, Avian Influenza, ASF, and global economic headwinds.

Further, several events affecting production have subsequently affected the AFF sector performance, including implementing government policies on importing some agricultural products amid supply and price issues. Local production for hogs has been affected by the government's pork importation and the imposition of low tariffs to address the supply deficit and increase

in pork prices in early 2021 due to ASF. Additionally, the AFF sector remained challenged by damages due to typhoons and limited mobility due to community restrictions amidst the COVID-19 pandemic.

Based on the 2021 Provincial Production Accounts by the PSA, the gross value added in AFF from CALABARZON is PHP131.09 billion, about 7.4 percent of the total for the Philippines. The biggest contributor in the region is the Province of Quezon, with a 36.2 percent share, followed by the Province of Batangas with a 34.7 percent share to the region's gross value added in AFF.

The performance of AFF in CALABARZON has been declining at an average of 4.98 percent from 2018 to 2021. The biggest decline is observed in the Province of Rizal at an average of 17.89 percent (Table 7.1).

Table 7.1 Gross Value Added in Agriculture, Forestry, and Fishing, by Province and Highly Urbanized City in CALABARZON, at constant 2018 prices

PROVINCE		AVEDAGE		
PROVINCE	2018 - 2019	2019 - 2020	2020 - 2021	AVERAGE
CALABARZON	1.2	-6.7	-9.4	-4.98
Batangas	2.8	-8.5	-3.9	-3.20
Cavite	-9.0	-9.4	-6.4	-8.25
Laguna	12.5	-3.6	-23.3	-4.81
Quezon	-2.5	-1.3	-1.1	-1.63
Rizal	5.7	-18.9	-40.5	-17.89
City of Lucena	4.2	5.0	-10.1	-0.31

Source: PSA

Challenges

The following major challenges contribute to inefficiencies along various segments of the value chain, which continue to hamper the potentials of the agriculture and agribusiness sector in CALABARZON:

Low farm productivity. Based on the estimated area harvested and yield per hectare data of the Philippine Rice Research Institute, there is an average decline of 0.99 percent in the area harvested for palay in CALABARZON from 2017 to 2021. While the average yield of palay per metric ton is increasing by 1.00 percent from 2017 to 2021, the palay yield at 3.70 metric tons per hectare is below the target of 4.05 metric tons per hectare in 2021.

Productivity in the sector remains lagged despite improvements in farm mechanization and government infrastructure investment. Inadequate post-harvest facilities result in relatively high production losses.

In addition, the low share of AFF research, development, and extension programs in the DA budget undermines the significance of developing technologies and disseminating sustainable farm and fishery management practices.

The low employment in AFF has also affected the performance of the sector. According to PSA's 2017 Population and Labor Force Survey, CALABARZON had the highest number of employed persons in Philippines in 2016 at 5.69 million the least employment was agriculture with only 554,000 or just 9.7 percent of the total number of persons employed.

Unsustainable fisheries management. International organizations have flagged the country to strengthen its fisheries conservation and management interventions. In January 2019, the International Union for Conservation of Nature declared Tawilis an endangered species based on the findings related to its population, the extent of occurrence, and area of occupancy. Similarly, the prevention and elimination of illegal, unreported, and unregulated fishing remain a challenge despite the implementation of Republic Act No. 10654 or the amendment of the Philippine Fisheries Code of 1998.

Aquaculture was also affected by the Laguna Lake Development Authority's implementation of policies regulating the number of fish pens and cages to 10 percent of the lake's total area in compliance with RA 8550 or the Philippine Fisheries Code of 1998.

Outbreaks of animal diseases. The emergence of diseases in animals, especially in poultry and livestock, affected the AFF sector in the region. In 2017, the country experienced a bird flu outbreak that prompted the region to be on the lookout, as migratory birds can easily transmit the disease. In 2019, the ASF outbreak occurred, affecting the provinces of Rizal and Batangas before spreading to the entire region, which resulted in losses in the hog industry.

Low access to credit and insurance. Despite various government credit and insurance programs, access seems to be limited as there remains a relevant proportion of unserved small farmers and fisherfolks. Activities to increase awareness and appreciation of farmers and fisherfolks for agricultural insurance and financing have been limited, especially during the COVID-19 pandemic. Travel and mass gatherings were restricted due to community quarantine that prevented on-ground and conducting organized group training and other capacity-building activities.

High vulnerability to multidimensional shocks. AFF remains vulnerable to multidimensional shocks such as typhoons, earthquakes, and volcanic eruptions, among others, considering the geographical location and physical environment of the Philippines. Rising temperature also threatens the AFF

sector due to its effect on the physiology and reproduction of pests.

In 2015, 87,557.84 ha of SAFDZ were within environmentally critical areas (Figure 7.1), mostly located in the coastal and low-lying areas of Batangas and Quezon Province. An estimated 22,503,35 ha of SAFDZs were within protected areas (Figure 7.2). Most of these areas are located in Batangas Province, with a total of 12,041.76 ha, and Rizal Province at 6,234.99 ha. SAFDZ in Batangas was generally within the Taal Volcano Protected Landscape. For instance, Taal Lake is strategically located for agriculture and tourism purposes. Hence, several issues were noted, including overfishing, fish kills, lake water pollution from households and industries, endangering endemic fish species.

In recent years, the sector has also been greatly affected by the disruptions in supply chains due to the: (a) imposition of community quarantines to limit the spread of COVID-19; (b) ongoing conflict between Russia and Ukraine resulting in increased prices of fuel, feeds, and fertilizers; (c) Taal Volcano eruption; and (d) series of strong typhoons. Disruptions in the supply chain resulted in high inflation in key food commodities.

Figure 7.1 SAFDZ within Environmentally Critical Areas, CALABARZON

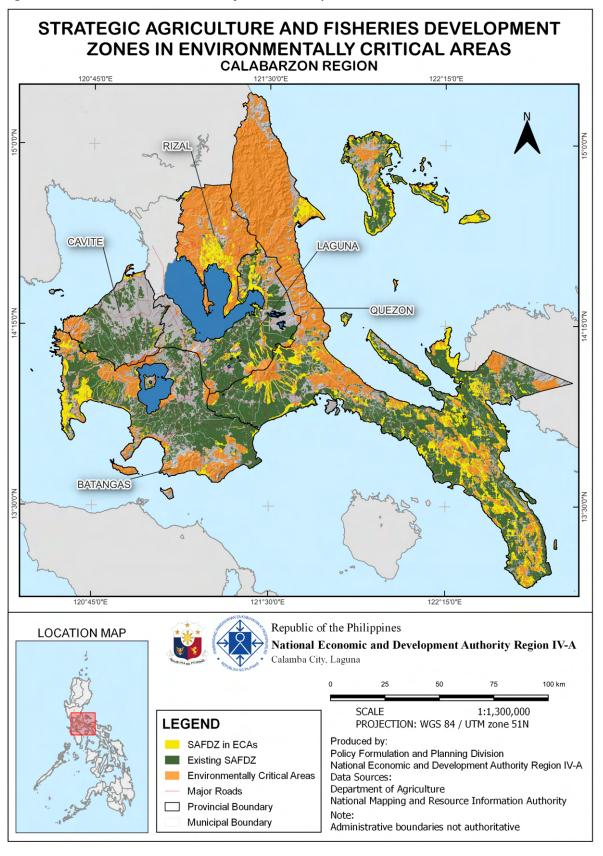
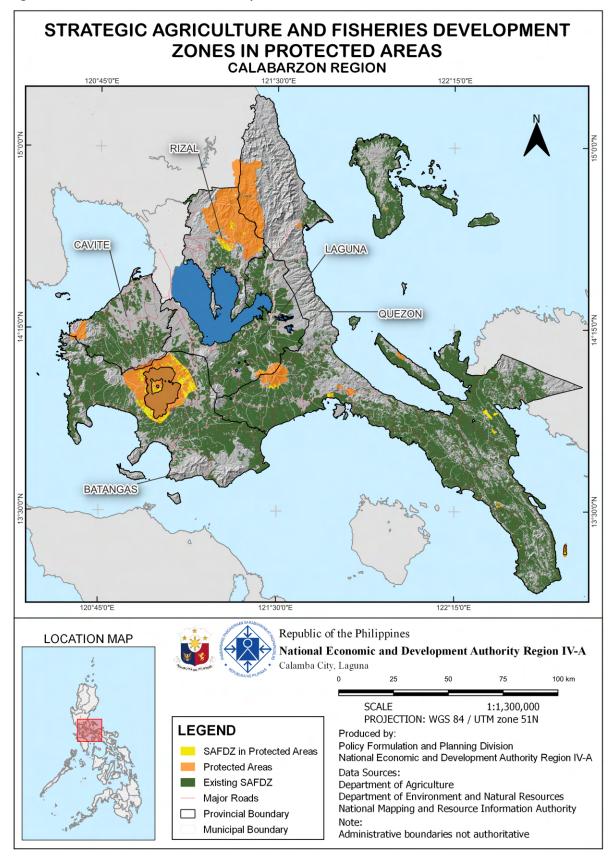


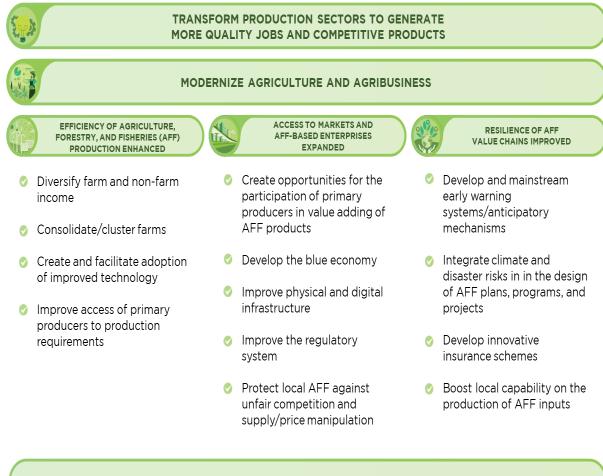
Figure 7.2. SAFDZ within Protected Areas, CALABARZON



Strategy Framework

The AFF sector needs to be modernized to pursue the transformation of production sectors to generate more quality jobs and competitive products. A modern, innovative, and sustainable agri-food system can be attained through the following outcomes: (1) efficiency of AFF production enhanced, (2) access to markets and AFF-based enterprises expanded, and (3) resilience of AFF value chains improved. The intended outcomes will be achieved through the following identified specific strategies:

Figure 7.3 Strategy Framework to Modernize Agriculture and Agribusiness



AGRICULTURAL INSTITUTIONS STRENGTHENED

Strategies

Outcome 1: Efficiency of AFF production enhanced

Diversify farm and non-farm income

AFF is the most vulnerable sector to climate change and disasters. Climatic changes such as drought or excess rainfall can instantly affect production, resulting in losses that reduce farm income. Diversification of income from the farm to non-farm sources will minimize the risk of income losses by producers. Community-based programs on alternative income sources such as agri-tourism, will be pursued to take advantage of alternative employment opportunities.

Multi-cropping or diversified cropping will be promoted as alternative source of income. Rice farmers will be encouraged to plant cash crops or high-value crops such as fruits and vegetables, while coconut farmers will be encouraged to plant cacao to promote crop diversification. Aside from diversified farming, integrated farming will be promoted. The DA Region IV-A has conducted a Farmer's Field Day in Cavite to introduce integrated farming that features the integration of ducks in the rice farming system to provide farmers additional income from selling duck eggs and ducklings.

A similar activity in Quezon showcased diversified farming for coconut and vegetables, and native chicken production. Coconut production areas will be intercropped with high-value crops such as hot pepper, okra, and soybean. Native chicken production will be further integrated to maintain the productivity and profitability of the existing coconut production area.

Commodities with comparative advantage in the region will be developed and promoted. As the major champion commodities of the region, livestock, poultry, aquaculture, and lowland vegetables will be increased. The development of the cattle industry in the region will also be prioritized as a commodity with high potential based on the DA's value-chain analyses. Relatedly, additional hatcheries for breeder-layers and poultry multiplier farms will be established, while hog breeder farms will be established in ASF-free areas.

Consolidate/cluster farms

The government will encourage farmers and fisherfolks to cluster and consolidate mainly through cooperatives or enterprises to address the challenge of productivity and accessibility as various government supports are mainly provided to cooperatives or organizations. Farm clustering will not only facilitate the provision of government support services but will also ease the access of farmers and fisherfolks to production requirements such as land, water, renewable energy, and credit.

DA's Administrative Order No. 27, series of 2020, established the Farm and Fisheries Clustering Consolidation and Program (F2C2) towards greater inclusive agribusiness development. As part of the F2C2 implementation in CALABARZON, the DA conducts capacity-building in Cluster Development Plan preparation that includes the assessment of the current situation and the identification of corresponding interventions needed by the farmer clusters involved. Under the F2C2, the clusters will have the opportunity to conduct stakeholder consultations in crafting their strategies.

Clustering will allow for the consolidation of resources to achieve economies of scale similar to the Bayanihan Agricultural Cluster (BAC) Program of DA. Under the BAC, identified clusters will be provided with capability training on enterprise organization and management, simplified business systems and procedures, and marketing of agricultural commodities, including contract growing arrangements.

Efforts will be pursued to integrate farmers and fisherfolks into larger agribusiness enterprises and institutional buyers. Clustering will also be promoted to adopt a common operations standard that will allow farmers and fisherfolks to engage in contract farming and productive alliances.

Create and facilitate the adoption of improved technology

Government and private sector investments in R&D will be increased, focusing on climateand disaster-responsive technologies and innovations, reduction of losses, product quality and food safety, and value-adding of agricultural and fishery commodities. An increase in R&D investments will also cover the direct costs, human resources, and improved infrastructure.

Farmers and fisherfolks face various challenges and limitations to production that can be overcome by various available technologies, but some are not open to new technologies. To ensure that R&D findings and available technologies will be successfully adopted on the ground, capacity-building for both extension workers farmers and must continuously be strengthened. The mindset of farmers and fisherfolks on technology adoption will change as more government extension services on skills training, capacity-building activities, and information dissemination on technology transfer are made available.

The Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development under the DOST has initiated several programs to ensure that the farmers and fisherfolks will utilize the outputs of R&D and innovation. These programs will involve critical transfer modalities such as commercialization, deployment, and extension.

Technical assistance and training, such as DA's Farmers Field School (FFS), will serve as a venue to showcase success stories and best practices and introduce non-conventional farming methods to encourage more investors in the AFF, such as the youth and retirees. In addition, affordable credit will be made available to farmers and fisherfolks so they can avail themselves of such technologies.

Diffusion and use of climate-resilient and smart technologies will be promoted. There will be a focus on precision agriculture, the internet of things, and the use of big data to agriculture amidst the increasing population and threat of climate change. One of the current initiatives is the DA's capacitybuilding on Rice Crop Manager Advisory Service 4.0, a digital service providing farmers with information on nutrient and crop management. Similarly, under the DA's Climate Change Office, the Climate-Smart Extension System is a priority program led by the Agricultural Training Institute (ATI) to educate and equip stakeholders, including the technologies, to mitigate and adapt to climate change. Technologies that gather real-time information, such as automated farming equipment, drones, moisture sensor, geographic information system, sensing, site-specific crop management, and other intelligent technologies in agriculture such as automated water management and yield monitoring and forecasting, will be adopted for more effective farm decisionmaking. Also, there will be increased promotion and adoption of renewable energy technologies.

Similarly, investment in livestock and poultry disease prevention technologies such as pests and disease detection tools and livestock wearable technologies, will be increased. The DA, through its Integrated National Swine Production Initiatives for Recovery and Expansion Program, provides for bio-secured and climate-controlled finisher operation facilities. Livestock and poultry are the growth drivers of the AFF sector in the region and must be protected from diseases. Technologies that will strengthen biosecurity or practices that can control the spread of disease-causing organisms in livestock and poultry will be institutionalized, especially at the local level, as preventive measures.

Improve access of primary producers to production requirements

For land resources, the DAR will firm up the database on Land Acquisition and Distribution Balance to determine the workability of the Comprehensive Agrarian Program-covered Reform lands distribution to qualified ARBs. Additional strategy on using idle lands and mangrove development for food production is discussed in Chapter 5.1.

The government will pursue buffer stocking of high-quality rice and corn seeds to ensure that there is enough supply of seeds that can be used for replanting after calamities and emergencies. Simultaneously, there will be greater utilization and composting of farm and non-farm wastes and biological materials such as palm sap, wood waste, and napier grass, as energy and fertilizer sources. The Bokashi composting method will be promoted to address food waste and advocate food sustainability.

The Registry System for Basic Sectors in Agriculture (RSBSA) will be implemented to facilitate access to government services, including production support. The RSBSA is an electronic registry of farmers, fisherfolks, and farm laborers which serves as a requirement and basis for identifying

beneficiaries for implementing various programs, such as providing production input and financial assistance, insurance services, and other interventions that cater to farmers and fisherfolks. Under the General Appropriations Act, the national programs of the DA will prioritize areas where most of the RSBSA-registered farmers and fisherfolks are located.

The DA will intensify its extension services through the province-led Agriculture and Fisheries Extension Systems (PAFES). The PAFES is a key strategy to implement the full devolution of certain functions of the executive branch to LGUs starting in 2022. PAFES addresses the long-standing challenges in agri-fishery extension, especially in having an institutional arrangement to integrate and strengthen extension services at the provincial level.

Distributing financial assistance, machinery, and other interventions to farmers and fisherfolks will be facilitated by introducing the Interventions Monitoring Card or IMC. It is a multipurpose card that serves as a unique identification and transactional card where cash assistance for DA beneficiaries will be transferred.

Agricultural credit and financing programs under the Agricultural Credit Policy Council (ACPC), such as the Production Loan Easy Access, Agriculture and Fisheries Machinery and Equipment, and Working Capital Loan Easy Access, will also be extended to finance production, farm machinery, and working capital requirements of small farmers and fisherfolks. Loan and emergency assistance packages will also be provided to agricultural households in calamity-affected areas to help regain their capacity to earn a living through the Survival and Recovery Loan Assistance Program.

Additionally, agricultural financing programs of the ACPC, such as the *Kapital* Assistance for Young Agripreneurs (KAYA) and the Agri-*Negosyo* Loan Program, were launched in response to urgent sectoral needs to: a) encourage the youth to engage in agriculture

and fisheries ventures, and b) build the entrepreneurial mindset among farmers and fishers. Through these programs, eligible borrowers may finance their production, working capital, and farm machinery requirements.

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

Create opportunities for the participation of primary producers in the value-adding of AFF products

Value-adding to AFF products will be promoted through innovation and strengthened coordination. increase To farmers' income, there will be more valueadding activities, specifically during processing, manufacturing, and packaging. Post-harvest and processing initiatives for high-value commercial crops, such as the establishment of dressing facilities, villagetype processing machinery and equipment, packing house facilities, and roasting machines, will be provided by the DA under the High-Value Crops Development Program. The upscaling of technologies to expansion areas will be based on the results of agriresearches conducted by the academe and partner institutions.

The private sector will be encouraged to invest in areas that will improve the productivity and income of farmers and fisherfolks, such as expanding post-harvest facilities, cold storage, food terminal, food processing, and sanitary and phytosanitary measures facilities. In the region, investments in coconut products are encouraged, with CALABARZON as a major producer of the country and coconut as a product with high export demand.

Professional agricultural extension workers will be tapped to train small farmers

and fisherfolks in the FFS and in the demonstration farms that will be established. The training will include processing, packaging, marketing, and compliance with product standards and certification.

Develop the blue economy

With the rich marine resources, the government will develop the blue economy or the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while ensuring ocean ecosystem health. This will include the provision of coastal protection through mangroves and intensified monitoring of illegal, unreported, and unregulated fishing. Similarly, sustainable fishing will be promoted, and water quality will be monitored to ensure compliance with water quality standards.

Implementation of sustainable fisheries management can be further intensified by (a) completely delineating, delimiting, and zoning municipal waters to ensure that municipal fisherfolks are given preferential use and exclusive access to resources (mapped and zoned accordingly into production and protection areas to ensure fisheries sustainability); (b) strengthening collaborative enforcement and management coastal and marine areas particularly against illegal, unreported, and unregulated fishing activities; (c) implementing closed fishing seasons based on a comprehensive scientific study to allow for the increase of fish stocks; (d) regulating fishery structures such as fish pens and cages in inland bodies of water; and (e) strengthening linkages with various stakeholders and LGUs in the implementation of fishery laws.

As part of the government's efforts to ensure sustainable fisheries management, implementing the Fisheries Management Areas (FMAs) will be continued. The FMAs were established pursuant to the Bureau of Fisheries and Aquatic Resources (BFAR)'s Fisheries Administrative Order No. 263, series of 2019. It aims to provide a sciencebased fisheries management approach to conserving and managing a bay, gulf, lake, or any fishery area that may be delineated for fishery resource management purposes. Within the FMAs, the government, through BFAR and the LGUs, will work together to manage fish stocks in the area. BFAR will provide the LGUs with capacity-building and technical assistance in implementing FMA management policies and plans.

Improve physical and digital infrastructure

Farm-to-market roads, bridges, tramlines, and railways will be constructed to connect small farmers and fisherfolks to the agricultural value chain. Inter-island water transport, such as the roll-on/roll-off nautical highway and port facilities, will be improved to foster greater inter-regional trade of agriculture and fishery produce. Climate and disaster risks will also be considered in the design of transport networks.

The restriction on transportation due to imposed community restrictions amid the COVID-19 pandemic affected the flow of goods resulting in disrupted supply chains of agricultural and fisheries commodities. As such, the DA will continue its market linkages initiatives, such as the KADIWA ni Ani at Kita, to ensure food availability, accessibility, and price stability. This marketing

initiative empowers the farming community by providing a direct and effective farm-toconsumer food supply chain.

Farmers and their families will be encouraged to capitalize on digital agriculture to increase their productivity and incomes. Initiatives to address barriers to access, including the high costs of digital devices and services, lack of digital literacy and skills, and low awareness of and trust in digital solutions, will be pursued. Digital support will be provided, especially to small-scale farmers, to ensure that data and seamless connection will be available such as digitization of market transactions, online buy and sell, and payments via e-wallets.

Farmers and fisherfolks will be capacitated on digital tools and platforms to monitor production, assess damage from natural disasters, and implement early warning and early action protocols. Manufacturers and developers of smart technologies will also be incentivized.

In partnership with PLDT, Inc. and Smart Communications, the ATI conducted a Training of Trainers on Digital Farmers Program (DFP) in 2022, participated in by farmers from CALABARZON. The DFP is a digital literacy training program that aims to increase the livelihood opportunities of smallholder farmers through Information and Communications Technologies.

Additional strategies to ramp up the promotion and use of online or digital platforms/channels for marketing are discussed under Chapter 5.1.

Improve the regulatory system

Efforts to comply with the Ease of Doing Business Act will be pursued. Government processes will be improved through streamlining and service process enhancement.

Amid the threat to the livestock and poultry sector in the region, biosecurity measures will be intensified, especially on the borders of provinces and municipalities with high density or population of livestock and poultry. To mitigate the effects of plant and animal diseases, the DA will improve its laboratory and research facilities, establish traceability systems, and unify sanitary and phytosanitary control measures against plant and animal epidemics.

The LGUs will play a vital role in strictly implementing biosecurity measures and other related activities to prevent and control animal and plant diseases in the region. In terms of fisheries, the role of LGUs will be emphasized as local groups such as *Bantay Dagat* will be continuously capacitated in enforcing fishery laws in their jurisdiction.

Protect local AFF against unfair competition and supply/price manipulation

Government services to protect farmers and fisherfolks from unfair competition

will be implemented through information dissemination, constant price monitoring, and increased presence of government offices that can extend assistance with regard to unfair market practices.

Prices of basic commodities will be regularly gathered and consolidated to serve as reliable basis for market analysis and business decisions. The DA, through its Agribusiness and Marketing Assistance Service and the DTI, regularly conduct price monitoring and prepare reports of prevailing retail prices in select markets and establishments. Price monitoring reports will be made accessible to consumers and producers via various media.

The Local Price Monitoring Councils will be revived to regularly check prices of basic commodities and impose price ceilings, especially in areas declared under state of calamity wherein price controls are enforced to prevent traders from exploiting the situation like hoarding or price manipulation.

Outcome 3: Resilience of AFF value chains improved

Develop and mainstream early warning systems/anticipatory mechanisms

With the country being one of the most disaster-prone areas, production areas and the lives of most farmers and fisherfolks are at risk, thus, climate information and early warning services will be made available to them. Efforts will be focused on enhancing risk knowledge and impact forecasting, improving data governance and regulations, and supporting digital literacy at all levels.

The Project SARAI (Smarter Approaches to Reinvigorate Agriculture as an Industry in the Philippines) by the UPLB is a key initiative that will be strengthened. The project aims to provide crop advisories targeted for rice, corn, banana, coconut, coffee, cacao, sugarcane, soybean, and tomato. The crop advisories focus on integrating local weather data and drought forecasts with farm management activities, specifically nutrient and water management, and proactive pest and disease monitoring¹.

Integrate climate and disaster risks in the design of AFF plans, programs, and projects

A DRRM action plan with specific focus on agriculture and fisheries will be integrated into the local development plans to ensure the implementation of DRRM activities at the local level. Local governments will be equipped with the institutional, technical, and financial capacity to develop and implement plans.

Relatedly, the DA will ensure proper risk reduction while climate change mitigation interventions are in place for SAFDZs within environmentally constrained areas. Cropping patterns, crop intensity, and good agricultural practices will be considered in these SAFDZs. Also, shared governance will be strengthened to prevent habitat loss and species extinction.

Through the PDP and RDP, the NEDA will ensure alignment and consistency of programs and projects to the strategies towards climate and disaster resilience and sustainable development. Technical assistance will be provided to LGUs in mainstreaming DRRM in the local development and physical plans.

The Climate Change Commission is mandated to formulate the National Climate Change Action Plan (NCCAP). It will ensure the integration of climate and disaster risks in programs and projects. The NCCAP 2011-2028 outlines the country's agenda for adaptation and mitigation based on technical analyses and consultation with government agencies, civil society organizations, the business sector, and the academe.

Develop innovative insurance schemes

Considering the sector's vulnerability to climatic conditions, pests, and diseases, agricultural insurance for subsistence farmers and fisherfolks to cover crop, livestock, fisheries, and non-crop agricultural assets will be made more accessible to protect them from losses arising from natural calamities, plant diseases and pest infestations. Innovative agricultural insurance schemes

such as weather index-based and area-based yield index insurance will also be promoted to allow for speedy payments of claims for damaged crops, livestock, and fisheries, especially during calamities, to help farmers and fishers mitigate the effects of damages.

Partnering with private insurance companies will also be explored to improve the agricultural insurance program and innovate agrarian insurance products. Existing agricultural insurance programs will be integrated into the development and implementation plans of agencies and offices related to agriculture and fisheries.

Awareness and appreciation by farmers and fisherfolks of risk insurance will be improved. Further, the Philippine Crop Insurance Corporation will continue to build strong ties with farmers and fisherfolks to help them access the free insurance programs of the government. The PCIC will also continue delivering its services efficiently by implementing the Agricultural Insurance for Farmers and Fisherfolks under the RSBSA. Through the RSBSA, there will be non-duplication of services to beneficiaries, and priority will be given to localities declared as geo-hazard areas or non-build zones identified by the Mines and Geosciences Bureau².

Boost local capability on the production of AFF inputs

Most agricultural inputs, such as fertilizers and pesticides, are imported, making them vulnerable to global price shocks and high freight costs.

To ensure sustained production, the government will continue to provide subsidies on inputs such as fertilizers, planting materials, and machinery under the Production Support Services of the DA banner programs on rice, corn, high-value crops development, livestock, and organic agriculture. Production support services

will be pursued such as the Artificial Insemination Program and the establishment of multiplier farms or a scaled-up version of the dispersal program where animal stocks are distributed to livestock producers.

Similarly, fisheries inputs will be provided under the Fisheries Development Program of the BFAR. For fisherfolks, fishing gears/ paraphernalia will be provided, fingerling production and distribution advice and assistance will be given, aquaculture training will be organized, and techno demo farms will be established.

Organic farming will also be promoted as an alternative to reduce dependency on imported fertilizers and pesticides. Under the National Organic Agriculture Program of DA, the availability and accessibility of organic agriculture products will be increased as organic farms will be integrated and assisted in producing and supplying organic inputs. Farmers will be encouraged to practice organic farming especially since the program provides incentives for those engaged in organic agriculture.

Legislative Agenda

Table 7.2 presents the region's priority legislative agenda to modernize agriculture and agribusiness.

Table 7.2 Legislative Agenda to Modernize Agriculture and Agribusiness

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
National Land Use Act	This is to establish a national land use framework that will (a) define the indicative priorities for land utilization and allocation across residential, infrastructure, agricultural, and protective uses; (b) integrate efforts and monitor developments related to land use; and (c) evolve policies, regulations, and directions of land use planning processes.	DENR, DAR, DTI, DPWH, Department of Transportation (DOTr), DOT, DILG, DOE, DHSUD, LGUS
Consolidating land administration and management functions	This will improve land administration and management services for agricultural and non-agricultural lands. This will also contribute to fast-tracking the distribution of individual titles under CARP.	DAR, DENR, DA
Idle Land Tax	This is to promote the productive use of idle lands, even if temporary, but without prejudice to the rights of owners to the security of tenure.	DILG, LGUs
Soil and Water Conservation Act	This aims to promote the adoption and implementation of Sustainable Land Management programs, projects, and activities for further prevention of land degradation through various soil and water conservation technologies and approaches, including rainwater harvesting.	DA
New Agrarian Emancipation Act	This aims to free ARBs from the debt burden through the condonation of unpaid principal amortization payments for the lands awarded under CARP.	DAR
Farm-to-Market Road Development and Acceleration Bill	This seeks to institutionalize the Farm-to-Market Road Development Program and funding commitment to significantly improve the Philippine barangay road network to serve the Philippine Food Systems transformation needs.	DA, DPWH
Strengthening the agricultural extension system	This aims to provide additional funding for provincial LGUs to incentivize them to invest and improve the provincial agri-fishery extension system. This builds on the draft Executive Order institutionalizing Province-Led Agriculture and Fisheries Extension Systems and mandating their implementation across all provinces.	DA, LGUS
Amendments to the Landbank of the Philippines (LBP) Charter	This aims to increase the bank's authorized capital for better funding assistance in government programs for primary producers. This will also enable LBP to operate as a government financial institution responsible for broad-based agricultural and rural development and financial inclusion.	LBP
Livestock, Poultry, and Dairy (LPD) Development and Competitiveness Act	The proposed law aims to (a) improve the availability and affordability of nutritious and safe LPD products; (b) pursue better government response to pests and diseases; and (c) increase the incomes of LPD and corn farmers.	DA, DILG, LGUs

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Amendment of the Rice and Corn Law (Presidential Decree No. 194)	There is a need to amend Presidential Decree 194, which places a time limit for foreign companies to operate as 100 percent foreign-owned entities to attract foreign investments in the agriculture sector.	DA, DTI
Amendment of Section 61 of the Fisheries Code of 1998 (RA 8550)	The proposed law aims to improve efficiency and transparency in the trade of fishery products that will reduce trade costs, and enable the timely importation of fish to augment domestic production in cases of supply deficiency.	DA, BFAR
Strengthening the PCIC	This aims to strengthen and expand the agricultural insurance provision by the PCIC to protect farmers and fisherfolks from losses and damages brought about by natural calamities.	DA, PCIC
Young Farmers and Fisherfolk Challenge Act	This aims to (a) encourage the youth to pursue a career or engage in activities related to agriculture; (b) ensure participation of young farmers and fisherfolk in policy formulation and program implementation relative to the agriculture sector; and (c) provide institutional support for agribusiness and agri-entrepreneurship initiatives of the youth to fully realize their role as agents and partners for development fully.	DA, DTI, DepEd, DOST, CHED, DAR, TESDA, DILG, DICT, DENR, National Youth Commission (NYC), LGUs

Results Matrix

Table 7.3 presents the indicators within the plan period to modernize agriculture and agribusiness.

Table 7.3 Results Matrix: Modernize Agriculture and Agribusiness

INDICATOR	BASELIN	RESPONSIBLE AGENCY/			
INDICATOR	YEAR	VALUE	REPORTING ENTITY		
Poverty incidence among primary producers (farmers and fisherfolk) reduced [%]					
Farmers	2018	13.20%	DA, LGUs		
Fisherfolk	2018	16.40%	BFAR, LGUs		
Growth in AFF Gross Value Added Increased (%, in constant prices)	2021	-9.40%	DA, LGUs		
Growth in AFF Labor Productivity Increased [%]	2017	2.70%	DA		

Endnotes

¹ About Us. Project SARAI. https://sarai.ph/about-us

² Guidelines for the Implementation of the "Agricultural Insurance for Farmers and Fisherfolk under the RSBSA" as Provided for under Republic Act No. 11639, or the General Appropriations Act, FY2022



CHAPTER 8

Revitalize Industry

CALABARZON's population is growing with a 4.4 percent growth rate posted for 2016-2022. Hence, there is a need to create more quality jobs to support the growing population. In line with this, the region will revitalize the industry sector to transform production sectors and generate more quality jobs and competitive products. The three outcomes identified for revitalizing the industry sector are (a) domestic market production and supplier base expanded, (b) moving up the value chain achieved, and (c) inter-sectoral linkages enhanced. In addition, moving up the value chain would entail improving competitiveness and creating a dynamic industry ecosystem.

Assessment and Challenges

Assessment

The COVID-19 pandemic significantly impacted the CALABARZON economy as the Gross Regional Domestic Product growth rate decreased to a negative 10.5 percent in 2020. Similarly, the Gross Value Added (GVA) in the industry sector growth rate of the region contracted to negative 12.6 percent in the same year (Table. 8.1). Nevertheless, the region recovered in 2021 with a 7.6 percent GRDP growth rate, which may be attributed to the reopening of the economy and easing of travel restrictions.

The industry sector also played a significant part in the recovery. Figure 8.1 shows the share of the industry sector in CALABARZON's economy, while, Figure 8.2 shows the region leading the NCR and Region 3 in industry GVA, contributing about one-sixth of the industry GVA of the Philippines.

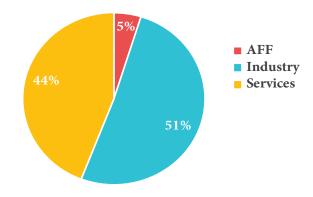
In 2021, the manufacturing sector contributed 85 percent to the industry GVA. Moreover, there was a slight increase in the percent share of the manufacturing GVA to GRDP, from 42.77 percent in 2017 to 43.33 percent in 2021 (Figure 8.3).

Table 8.1 Gross Value Added in Industry Growth Rates by Province and Highly Urbanized City at constant 2018 prices, CALABARZON, 2018-2021

PDOWNOT.	PERIOD					
PROVINCE	2018 - 2019	2019 - 2020	2020 - 2021			
CALABARZON	3.6	-12.6	11.2			
Batangas	8.3	-18.2	19.1			
Cavite	0.8	-22.6	20.3			
Laguna	1.8	-4.1	4.1			
Quezon	5.0	-10.9	11.0			
Rizal	9.0	-7.8	6.0			
City of Lucena	0.3	-29.3	3.8			

Source: PSA

Figure 8.1 Percent Share (at Constant 2018 Prices), GRDP by Industry, CALABARZON, 2021



Source: PSA

Figure 8.2 Industry GVA in PHP (at constant 2018 prices), CALABARZON



Source: PSA

Figure 8.3 Manufacturing GVA Percent Share to CALABARZON GRDP, 2017-2021



Source: PSA

In 2021, the industry GVA (at constant 2018 prices) of the Province of Laguna was the largest contributor to the region's industry GVA with PHP578.72 billion, followed by Cavite and Batangas at PHP323.77 billion and PHP321.49 billion, respectively.

In 2020, almost 28 percent of employed persons in CALABARZON were in the industry sector. The construction sector was largely dominated by male employees, while the manufacturing sector was dominated by female employees (Regional Social Economic Trends (RSET) 2021).

Challenges

Disasters adversely affected the region's industry sector. Aside from the pandemic, climate-related disasters adversely affected the performance of the industry sector. Typhoons Ompong in 2018 and Quinta, Rolly, and Ulysses in 2020 greatly affected the CALABARZON economy through damaged physical infrastructures needing repairs and reconstruction, and disruptions in work schedules of establishments.

Economic zones in environmentally critical areas. The 58 operational economic zones in the region are mostly concentrated in Cavite, Laguna, and Batangas. Of this number, 30 are within environmentally critical areas (Figure 8.4), which are areas within wetlands, flood-prone areas, abandoned landfills, fish and wildlife habitat conservation areas, steep slopes, and other geologic hazard areas.

Rising inflation due to global headwinds. The Ukraine-Russia war in 2022, which led to the rise of diesel prices from PHP50.00 per liter before the pandemic to about PHP80.00 per liter affected the region's economy. Moreover, the inflation rate increased, mostly driven by the increase in the prices of food products.

Opportunities

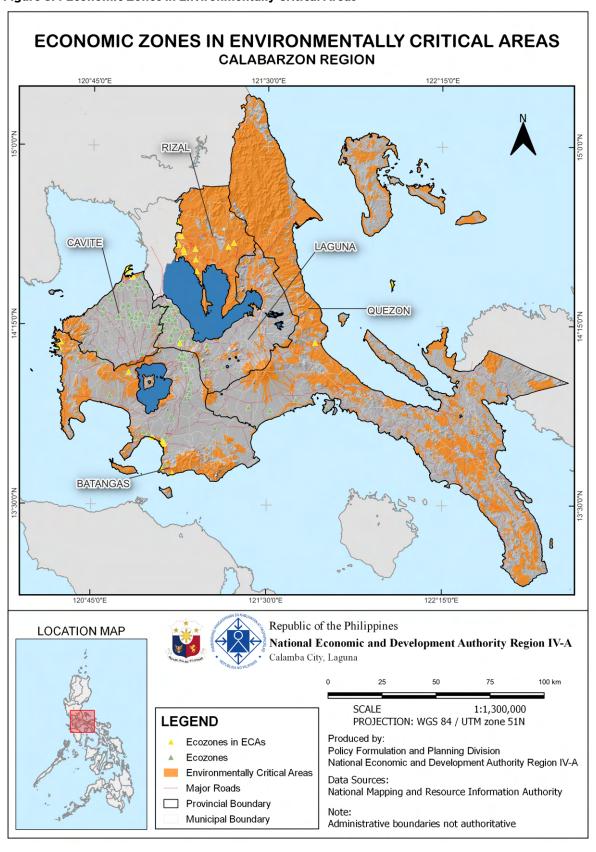
The region will exploit opportunities and continue the strategies adopted to recover from the effects of the COVID-19 pandemic. These strategies include digital marketing,

the use of online apps, the conduct of online meetings, and the adoption of work-fromhome arrangements.

Emerging technologies and new knowledge can be adopted by individuals and firms in CALABARZON, such as the Internet-of-things, cloud computing, smart cities, big data, data analytics, data science, data engineering, artificial intelligence, advanced driver assistance systems, augmented reality, and machine learning. These knowledge concepts will help in achieving the goals through greater efficiency of inputs and effectiveness of outputs.

Recently enacted laws will also help improve the competitiveness of the country and CALABARZON's industry sector, including the Corporate Recovery and Tax Incentives for Enterprises or CREATE Law, which reduces corporate income tax; the Foreign Investment Act or FIA, which allows foreign investors to invest up to 100 percent equity in domestic market enterprises, but also sets restrictions; Amended Public Service Act, which allows up to 100 percent foreign ownership of public services in the country; Amended Retail Trade Liberalization Act, which lowered the paid-up capital requirement for foreign retail enterprises and other purposes; and the revised Build-Operate-Transfer (BOT) Law, which will allow the region to mobilize private sector resources as engines for capital and catalysts for growth.

Figure 8.4 Economic Zones in Environmentally Critical Areas



Strategy Framework

The main goal is to transform the production sectors to generate more quality jobs and competitive products. To achieve this, the region needs to revitalize industry through science, technology, and innovation. Industries will be linked to the agriculture and services sectors and the academe. Moreover, an enabling economic environment will be pursued to increase industrial development in the region, help firms expand their domestic market and supplier base, and enable them to move up the value chain by improving their competitiveness and creating a dynamic industry ecosystem. The strategy framework for this chapter is shown in Figure 8.5.

TRANSFORM PRODUCTION SECTORS TO GENERATE MORE QUALITY JOBS AND COMPETITIVE PRODUCTS REVITALIZE INDUSTRY: SCIENCE, TECHNOLOGY, AND INNOVATION-DRIVEN INDUSTRIALIZATION MOVING UP THE VALUE CHAIN ACHIEVED Dynamic Industry Competitiveness Improved Enhance business-**Ecosystem Created** matching activities agglomeration/co-Ensure efficient Embrace industry 4.0 location of industry Intensify support to movement of goods and services, including industries producing for academic institutions Increase investment the domestic market Lower energy costs in skills development and promote Ensure matching of Foster industrialization of renewable energy skills of students and Implement the CALABARZON sources industry requirements priority industries Develop platforms to Accelerate the Enhance servicification Execute the digitalization and support an innovative of industries Harmonized National innovation of MSMEs culture Research and and startups Push for improved Development Establish common service enabling economic Agenda facilities Put in place business environment continuity plans in all Sustain the Science industries for Change Program **ENABLING ECONOMIC ENVIRONMENT**

Figure 8.5 Strategy Framework to Revitalize Industry

Strategies

Outcome 1: Domestic market production and supplier base expanded

Strong domestic markets and supplier bases are keys to sustainable local businesses. Information is vital to business owners and investors, and LGUs and the DTI can help provide this information. Among the information needed are where to buy lots

for industrial development, where to rent or buy properties for industry clustering, cost of doing business, local suppliers that can provide raw inputs, and location of existing similar businesses to assess the competition and prospects for future expansion. Increasing the domestic market and supplier base will help business firms to be more resilient during a pandemic.

Enhance business-matching activities. Investment promotion and business-matching activities in CALABARZON will be scaled up to help expand the domestic market for the products of the firms. The DTI's Negosyo Centers will serve as venues for these business-matching activities, linking MSMEs to regional multinational companies. Through the database of the Negosyo Centers, MSMEs will be clustered to meet the production demand of large enterprises.

Intensify support to industries producing for the domestic market. Manufacturers expanding their businesses face competition locally and internationally because of importation. Hence, policies or government activities supporting these manufacturers should be provided. Provincial trade fairs, One Town, One Product shows, and Go Lokal! Stores in major malls will be intensified to provide marketing assistance for these manufacturers. Shared service facilities will also be increased to provide more access to manufacturers for quality and safe production.

Foster industrialization of CALABARZON. CALABARZON will be further promoted as

an industrial hub. Expansion and operation of new ecozones will be encouraged to create more job opportunities. The clustering of industries, as well as the provision of incentives to locators, will be explored. This strategy will support the growing population. Quezon, Batangas, and Rizal provinces are ideal sites for new ecozones.

Develop platforms to support an innovative culture. Batangas State University is the anchor academe institution and the lead implementor of the Regional Inclusive Innovation Center (RIIC) in CALABARZON, which aims to promote an innovation culture, commercialize R&D technologies, and adopt technology solutions to create intellectual property. The innovation center provides design thinking workshops and serves as a venue for networking and engaging with the academe, industry, and other ecosystem players. DTI targets to have three more RIICs at the end of the planning period.

Establish common service facilities. Storage and logistics, such as handling and cold storage facilities, will be established for MSMEs. Additional Fablabs for digital fabrication will be provided. Digital training centers will be pursued in partnership with the private sector to house the facilities.

Outcome 2: Moving up the value chain achieved

Moving up the value chain means businesses are encouraged to grow by producing more products or services and creating more job opportunities. Improving competitiveness and creating a dynamic industry ecosystem are keys to achieving this strategy.

Competitiveness improved

Ensure efficient movement of goods. Transportation in CALABARZON should

be improved, especially in traffic-congested areas. Moreover, the provision of storage and delivery services will also be considered. These logistics and delivery services should be priced low so as not to adversely affect the product price.

Lower energy costs and promote renewable energy sources. Another factor that negatively affects industries is the high energy cost. The region will pursue renewable

energy and support the amendment of the Renewable Energy Act of 2008, which will provide power-generating provinces with lower power costs for their constituents and a 24/7 power supply. CALABARZON has an advantage since the region hosts about half of the installed power capacity in the Luzon Grid.

Accelerate digitalization and innovation of MSMEs and Startups. MSMEs will be provided with targeted support to make them competitive in the new normal. CALABARZON will assist with digitalization and innovation of MSMEs, provide mentoring and entrepreneurship training such as DTI's Negosyo Center seminars, SME Roving Academy, and the Kapatid Mentor ME, link MSMEs and startups to multi-national companies or corporations through the Innovation Start-Up Act, and link MSMEs and startups for funding and innovation partnership opportunities. DICT will provide a digital platform for MSMEs and startups. The region will also support the digitalization of MSME data.

Put in place Business Continuity Plans (BCP) in all industries. Enterprises will be more competitive if they are more resilient to risks and vulnerabilities. They will be encouraged to develop their BCPs. The National Wages and Productivity Commission and other relevant agencies will provide capacity-building through its Productivity Toolbox which will also help strengthen their entrepreneurial capabilities. Non-government organizations will also be engaged to provide training on BCP to firms.

Dynamic industry ecosystem created

Embrace Industry 4.0. Technology mature firms will be encouraged to embrace Industry 4.0, when applicable, for new production techniques and business models.

The region will support the implementation of Industry 4.0 roadmaps, where strategies for the necessary facilities and services, human resources, R&D technologies, and outlined. S&T policies are Artificial Intelligence (AI) Roadmap is an example of an Industry 4.0 Roadmap where the establishment of a Center for AI R&D was proposed. The region will also support building Industry 4.0 facilities such as manufacturing, advanced robotics, and industrial automation.

Assist firms in implementing digital readiness. The government will support firms and industries to shift to new technologies by providing deeper awareness and understanding of digital transformation and assessing their technology readiness.

Provide soft loan and technical assistance. The region will implement financial and technical assistance programs to cope with production shocks and supply system changes by adopting advanced technology and automated processes.

Increase investment in skills development. DOST Region IV-A reported 1,431 science and technology jobs generated in 2021, below the 2019 pre-pandemic level of 2,145. It is imperative to upskill CALABARZON's workforce as the region aims for Ambisyon Natin 2040, where people land good quality local jobs.

The government will encourage firms and MSMEs to develop the skills of their management and employees. This is key for businesses to become more competitive through innovation and to move up the value chain. The government will deliver better services by acquiring and applying this available knowledge and technologies. Online platforms providing related training will be promoted such as DICT's platform of free online courses, from navigating Google Workspace to programming with Python.

TESDA also has an online program with courses on 21st Century Skills, construction, electrical and electronics, entrepreneurship, and ICT, among others. Analytics will enable a data-driven government. It will also maximize productivity and uncover new business opportunities for the private sector.

Implement the priority industries. IT-BPM, metals, electronics, automotive, and petrochemicals are the five priority industries identified by the RDC- Investment Promotion Group. Strategic planning workshops for these industries will be pursued in 2023 to formulate investment promotion plans for each industry. Further, the region is looking at promoting highvalue agriculture and tourism. As identified by DTI, CALABARZON will be looking at the growth of the following industries in the region: (a) Industrial, Manufacturing, and Transport (IMT), (b) Technology, Media, and Telecommunication (TMT), (c) Health and Life Science, and (d) Modern Basic Needs (MBN), Resilient Economy. The region is also promoting electric vehicle use during this medium term.

Execute the Harmonized National Research and Development Agenda (HNRDA) 2022 – 2028 with Its Industry, Energy, and Emerging Technology (IEET) roadmaps. The DOST, partnering with DTI, will speed up the implementation of HNRDA. The document covers topics on additive manufacturing,

materials for energy, advanced materials, nanotechnology, optics and photonics, electronics, ICT, Industry 4.0, construction, autonomous vehicle systems, transportation, energy and utilities, food, metal, and engineering, mining and minerals, processing, among others. DOST will support this strategy through the following programs: Small Enterprise Technology Upgrading Program, Support Program for Packaging Development and Technologies, and Advancing Technology Transfer of DOST-funded R&D Technologies.

Sustain the Science for Change Program (S4CP). CALABARZON will continue to support the S4CP of the DOST. The Collaborative R&D to Leverage the Economy Program under S4CP aims to enable technological advancement and innovation of local companies and to support the growth of the Philippine Innovation ecosystem. Through the program, the academe and R&D institutions, in partnership with a Filipino company, will undertake research development to improve companies' products, processes, and services to become more competitive in their respective industries. Another component of the S4CP, the Business Innovation through S & T Program, will provide financial assistance to Filipino private companies to acquire strategic and relevant technologies for their R&D.

Outcome 3: Inter-sectoral linkages enhanced

Regional coordination is vital to achieving this outcome. The roles of the RDC through its Sectoral Committee on Economic Development (SCED) and the DTI- are critical in guiding and facilitating the concerns of the industry sector. At the SCED level, regional issues and concerns of the sector will be discussed and addressed through policy, program, project, or

activities (PPAs). DTI will implement policies and PPAs within their mandate concerning the industries. Concerns of the industry sector regarding other sectors, such as infrastructure, raw agricultural inputs, research and development, and innovation, will be referred to the concerned sectoral committee of the RDC for appropriate action. Matters that cannot be resolved at the

regional level will be raised to the Luzon Regional Development Committee. Private sector participation in these meetings is important in raising and solving the industries' concerns.

Promote agglomeration or co-location of industry and services, including academic institutions. This strategy will improve the collaboration among industries, services, and academe. R&D, marketing, business support, and financial services will be made available to the industries in the co-location area.

Ensure matching of skills of students and industry requirements. Greater collaboration among CHED, SUCs, private schools, technical and vocational education schools, and industry organizations is required to achieve this strategy. The RDC will serve as a venue for the needed collaboration and coordination.

Enhance the servicification of manufacturers. Manufacturers will be encouraged to have their research and development and engineering services for better manufacturing processes, leading to increased labor productivity. This includes services providing knowledge on

organizational efficiency and effectiveness, such as lean manufacturing. Moreover, emerging knowledge-intensive industries will increase the demand for information technology, real estate, wholesale and retail trading, and professional and technical services.

Push for improved enabling economic improve environment. **Efforts** to CALABARZON's enabling economic environment will be pursued. This includes linking industries to markets through DTI-DPWH Convergence Program for Roads, easing the traffic congestions in ecozones along Maharlika Highway, improving the road condition, and possibly pursuing the construction of the Northbound lanes of the STAR Tollway, and construction of the Laguna Lakeshore Road Network to ease the heavy traffic in South Luzon Expressway, among others. Aside from roads, reliable internet connectivity and reduced cost of electricity and logistics are important in realizing an improved enabling economic environment.

Legislative Agenda

Table 8.2 presents the region's priority legislative agenda to revitalize the industry sector.

Table 8.2 Legislative Agenda to Revitalize Industry

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Ratification of Regional Comprehensive Economic Partnership (RCEP) Agreement	This is the Free Trade Agreement with ASEAN 10 and Australia, China, South Korea, Japan, and New Zealand that only needs to be ratified by the Philippines and Myanmar. RCEP will enhance free market access in the Philippines.	DTI
National Quality Infrastructure	The bill concerns product standardization, accreditation, metrology, and conformity assessment toward consumer protection.	DTI, DOST
Amendment of the Philippines Qualifications Framework	This will be a common reference for employers and workers in hiring and getting ready to be employed.	DTI
Amendments to the Philippine Economic Zone Authority (PEZA) Law	The amendment is regarding the digitalization of locators.	PEZA
Internet Transactions Act	This seeks to regulate e-commerce.	DTI
Enterprise Productivity Act	It aims to strengthen the improvement of products and gain sharing between enterprises and employees. This will help sustain businesses in CALABARZON.	DTI
Science and Technology Parks Act	This aims to establish science and technology parks nationwide to stimulate innovation. It will support more ecozone development for the region.	DOST

Results Matrix

Table 8.3 presents the indicators and targets within the plan period to revitalize the industry sector.

Table 8.3 Results Matrix: Revitalize Industry

INDIGATOR	BASELINE	TARGETS						RESPONSIBLE AGENCY/			
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY			
GVA growth of construction increased [%]	21.4% (2021)			incre	asing			PSA			
Share of medium enterprises to total number of micro, small, and medium enterprises increased [%]	11% (2017)		increasing PSA								
R&D Personnel increased	8,724 (2018)			incre	DOST IV-A						
Employment generated in industry increased ('000)	1,682.46 (2020)			incre	PSA						
A. Employment generated in manufacturing increased ('000)	950.16 (2020)			incre	PSA						
B. Employment generated in construction increased ('000)	695.98 (2020)		increasing PSA				PSA				
GVA growth rate of manufacturing sector increased [%]	11% (2021)			incre	asing			PSA			

INDICATOR	BASELINE			TAR	RESPONSIBLE AGENCY/			
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	REPORTING ENTITY
GVA growth rate of industry sector sustained [%]	11.2% (2021)	6.3-7.3	6.3-7.3	6.3-7.3	6.3-7.3	6.3-7.3	6.3-7.3	DTI
MSMEs with product innovation *	16 (2022)	21	26	31	36	41	46	DTI
No. of RIICS established	1 (2022)		2 (cum)		3 (cum)		4 (cum)	DOLE

 $^{^{\}star}$ Additional five MSMEs with product innovation every year.



Reinvigorate Services

This chapter assesses the performance, opportunities, and strategies to address the challenges faced by the service sector in CALABARZON amid the continuing effects of the pandemic. This includes supporting the DTI's Bureau of Philippine Standard's guideline on business continuity plan that focuses on the possible mechanisms for MSMEs to cope with and adapt to the new normal.

Assessment and Challenges

Assessment

The eruption of Taal volcano and the onslaught of the COVID-19 pandemic in 2020 abruptly disrupted the flow of goods and services, resulting in a negative GVA of 8.5 percent. Majority of the affected businesses were in the wholesale and retail industry, professional and business activities, entertainment, and real estate. These occurrences also negatively affected the tourism industry due to community quarantines, which limited business operations and restricted travel, particularly in Batangas Province and in Tagaytay City in Cavite. However, an improvement was observed in 2021 as the percentages of same-day and overnight visitors increased by 29.72 percent and 63.90 percent, respectively. The tourist behavior shifted to urban green spaces, protected forest areas, farm tourism sites, and nature and adventure spots. According to DOT Region IV-A, the provinces of Rizal accounted for the highest number of recorded tourists, with 7,662,000 same-day visitors, and Batangas, with 913,000 overnight visitors. To support businesses, DOT IV-A's initiatives include conducting inspection and accreditation of tourism enterprises and providing participatory community-based ecotourism development

and planning workshops and seminars to tourism frontliners and vulnerable sectors.

In 2021, the GVA in the service sector increased significantly by 5.9 percent due to policy amendments in consideration of the new normal. Among the subsectors with enhanced performance contributing significantly to the improvement of the service sector are transportation, wholesale and retail, repair of motor vehicles and motorcycles, real estate, professionals and business activities, education, and human health and social work activities.

The economy's transition to more digital-based services boosted the performance of the service sector. Businesses engaged more in e-commerce, expanding their market access. For the DTI, e-commerce creates opportunities for businesses as it lowers capital and fixed expenses for the suppliers as the logistic and marketing costs are replaced by the internet and online platform fees. This gives more leverage for MSMEs to enter the market.

A flexible tax incentive system was also provided to private enterprises, particularly for the MSMEs, by granting corporate income tax rate reduction through the full implementation of the CREATE Act. This tax relief is part of the economic recovery measures of the government

not only to support businesses in the ongoing pandemic but also to attract local and foreign investors.

The strengthened collaboration between the government and the private sector has significantly contributed to the recovery and adoption of the service sector.

Challenges

The provision of goods and services is vulnerable to economic and market shocks. This was noticeable during the pandemic, given the continuous restrictions and uncertainties to the business sector hindering its local and international supply chain.

As one of the country's tourist destinations, CALABARZON faced a challenge as the number of tourist visitors decreased in 2021, affecting its contribution to economic growth. Between 2019 and 2020, there was a significant decline in the number of visitors to the region, with same-day and overnight visitors decreasing

by 80.31 percent and 87.82 percent, respectively. Additionally, there was a 44.9 percent reduction in accredited tourism establishments in 2020, partly due to limited physical inspections. According to the 2020 Annual Survey of Philippine Business and Industry (ASPBI), the region also experienced a decline in the employment rate, which dropped by 4.2 percent due to health concerns and business restrictions.

The skills mismatch adversely affected the employees' productivity, development, and innovation. The Philippine Institute for Development Studies (PIDS) recognized the normalization of job mismatch despite being a concerning matter in the job market. In 2022, 40 percent of Filipinos were deliberated to be overqualified for their jobs. This is evident during the pandemic when job seekers increased due to numerous business shutdowns forcing the labor force to engage in careers outside of their expertise.

Strategy Framework

The main goal is to reinvigorate the service sector to generate more quality jobs and competitive products. This can be realized through the following sector outcomes: (a) market expansion achieved; (b) creativity and innovation in services value proposition strengthened; and (c) intersectoral linkages enhanced (refer to Figure 9.1).

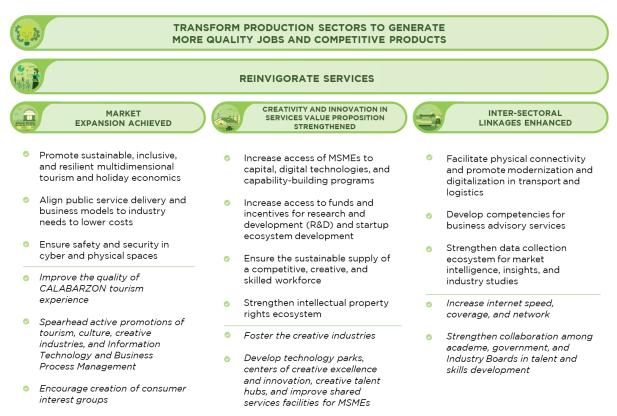
To further widen market access, there is a need to focus and engage in high-value and differentiated services, particularly for the tourism industry. To expedite this advancement, businesses will capitalize on digital technologies and skills enhancement programs to further strengthen the creativity and innovation of those in the workforce. Strengthening collaboration with the academe to avert skills mismatch will also be beneficial in boosting the service industry in the region. Aside from assisting private industries and MSMEs, businesses will also be encouraged to engage in e-commerce platforms and adopt new marketing trends. Incentive packages will also be provided as stipulated under the CREATE Act.

The partnership between the government and the private sector is vital in attaining a sustainable and inclusive business environment that will further promote investment in CALABARZON. The government will provide efficient, reliable, and affordable public services as specified in Republic Act No. 11659 or "An Act Amending Commonwealth Act No. 149, Otherwise Known as the Public Service Act."

To address the challenges in skills and job mismatch and for the region to become the prime investment hub, collaboration between the public and private sectors will be strengthened to further attract investments, generate exports, and produce jobs for millions of Filipinos, even post-pandemic.

The ripple effect of enhancing market access, strengthening innovation, and partnerships among the business and development actors will support the goal of inclusive transformation of the service sector in the region.

Figure 9.1 Strategy Framework to Reinvigorate Services



Strategies

The following sector-specific and cross-cutting strategies will be implemented to achieve the plan's targets.

Outcome 1: Market expansion achieved

Promote sustainable, inclusive, and resilient multidimensional tourism and holiday economics

Expanding market access also means offering a wide range of products and services to numerous consumers. Being the next region southeast of Metro Manila, CALABARZON has the potential for tourism as it provides an array of exciting leisure choices, i.e., cultural and historical heritage sites, recreational resorts, and farm tourism destinations. DOT's campaign #DiscoverCALABARZON and its launching of the Green Corridor Initiative (GCI) will link the tourist-ready destinations in the region. The identified tourism circuits highlight the unique features of each of the five provinces in CALABARZON. The DOT will further assist the LGUs and their local tour operators in developing their products and services to cater to the needs of existing and potential visitors for a globally competitive, environmentally sustainable, and socially responsible tourism industry.

To further boost domestic economic recovery in the region, supporting holiday economic measures will encourage the flow of tourists, particularly overnight tourists, and promote the region's rich arts and culture. Promoting festivals like the Pahiyas Festival in Lucban, Pasayahan sa Lucena, Agawan sa Sariaya, and other notable commemorations will stimulate cultural and historical awareness among tourists in and

outside the region. Creating cultural awareness programs and activities in every province of CALABARZON will further increase cultural heritage consciousness, especially among the youth.

Tourism development plans will be formulated to encourage tourism and facilitate inclusive development in far-flung areas with a high potential for tourism growth. DOT Region IV-A, with the assistance of concerned agencies and LGUs, will spearhead the completion of the Polillo Group of Islands (POGI) Tourism Development Plan, among others.

Align public service delivery to industry needs and business models to lower costs

Regulatory agencies will streamline procedures and documentary requirements to reduce business and logistic expenses and lower product prices (i.e., business permits and license applications, availability of storage facilities, and efficient delivery services, among others). Compliance with RA 11032 or the Ease of Doing Business (EODB) and Efficient Government Service Delivery Act of 2018 by the regional agencies and offices, LGUs, governmentowned and-controlled corporations, and other government instrumentalities providing services in CALABARZON will be strengthened. In terms of the movement of goods and services, the accreditation process will be harmonized between DTI and other concerned regional

agencies and private industries. Refer to Chapter 15 for more strategies for enhancing EODB in the region.

The MSMEs will be encouraged to access the DTI's Business Name Registration System for efficient registration of new businesses.

Ensure safety and security in the cyber and physical spaces

As the majority of businesses transition to digital-based services, the public and private data transmission industry players and telecommunication entities will strengthen their digital infrastructure and cybersecurity to safeguard online filing, electronic platform system transactions, and the creative outputs of the innovators. The DTI and DOST, together with the Intellectual Property Office of the Philippines and other concerned agencies, will collaborate for effective technology transfer and resolution of intellectual property disputes. Refer to Chapter 14 for further information on strengthening cyberspace security.

Improve the quality of the CALABARZON tourism experience

The DOT will continue its online accreditation system to all of CALABARZON's primary and secondary tourism enterprises for convenient and easy application. Accreditation of tourism businesses ensures the quality of facilities and services provided to consumers. It guarantees that stakeholders follow the minimum DOT standards to safeguard the welfare of the tourists and tourism front liners, i.e., tour guides and surfing instructors. The region will also engage in high-value and high-service tourism activities to ensure a meaningful experience for the guests. Local communities will be engaged in

every endeavor for a sustainable and authentic tourism experience.

Spearhead active promotions of tourism, culture, creative industries, and IT-BPM

Bringing together the government, private sector, local communities, and tourists in domestic and international travel trades and consumer activation programs will advance the region's tourism awareness.

The presence and market shares of business process outsourcing (BPO) industries and other contact centers, financial and professional services, AI services, digital and data services, animation, digital applications in health services, and other complex process outsourcing will be strengthened and widened. This is aligned with the Information Technology and Business Process Association of the Philippines (IBPAP)'s advocacy of streamlined policy reforms for more high-complex and high-skill jobs and a competitive business environment. It will also highlight and accelerate the Environmental, Social, and Governance (ESG) agenda to ensure responsible regional investment and sustainable growth.

The Provincial Government of Laguna initiated the Laguna Tourism Culture Arts and Trade Office (LTCATO) Facebook Online *Balitaan sa Turismo*, *Kultura at Kalakalan*, which features the distinctive culture and talents, products, and services offered by the different cities and municipalities in Laguna to increase awareness and boost tourism. The province ensures full support to local MSMEs amidst the pandemic through dialogues on skills creation and strengthened digital campaigns for cultural mapping and dissemination in partnership

with the National Historical Commission of the Philippines and the National Museum.

Encourage the creation of consumer interest groups

The LGUs will maximize the increased budget from higher internal revenue allotment to enhance their capabilities to partner with the private sector and civil society organizations to effectively resolve issues and concerns encountered in reforming the service sector. The DTI- Board of Investments has been organizing industry roadmap events for the business community and industry champions, particularly in the small and medium enterprises, discussing and seeking investment opportunities.

Outcome 2: Creativity and innovation in services value proposition strengthened

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

The DTI's RIICs will provide MSMEs with access to ideas, technology, and a pool of talents for a sustainable workforce supply. DTI and DOST will continue providing shared service facilities to startups and developers in the region to increase their access to immediate benefits, incentives, and opportunities. The local industries in CALABARZON, as the manufacturing and industrial hub of the country, will automate the production of their products by employing AI. The DTI's National Artificial Intelligence Strategy for the Philippines highlights the significance of AI in creating high-income jobs.

To advance visibility and market access, businesses will consider engaging in e-commerce and securing the convenience of consumers through e-payment systems while ensuring consumer protection to build their confidence and trust in the digital uptake.

The provision of training and capacity-building activities in the different subsectors will be prioritized to enhance the competencies of the MSMEs and of the labor market. The IT-BPM sector, through the DTI, will facilitate human capital upscaling through skills development.

Adopting RA 10679 or the Youth Entrepreneurship Act will also intensify finance and entrepreneurial spirit among the youth through education, training programs, and funding of startup enterprise projects. The Province of Laguna established a Youth Entrepreneurship Program (YEP) to promote youth entrepreneurship development.

Increase access to funds and incentives for R&D and startup ecosystem development

Agencies, regional offices, academe, and entrepreneurs will be encouraged to propose R&D projects for funding. Per DOST, for Fiscal Year 2023, fund allocation for diffusion and transfer of knowledge and other related projects and activities was decreased by 39.93 percent from its previous allocation. Improving budget allocation for the succeeding years is imperative to support innovators for economic development.

The DOST's Small Enterprises Technology Upgrading Program (SETUP) will continue assisting MSMEs in adopting appropriate technologies and innovations. This will facilitate enhancing and upgrading of the businesses' operational processes, productivity, and competitiveness in providing goods and services. Among the priority sectors are food processing, agriculture, aquaculture, metals and engineering, pharmaceuticals, and health products.

The regional and provincial offices of the DTI, DICT, DOST, and other host agencies will promote and facilitate the registration of qualified startups and startup enablers. On the other hand, PEZA and other Investment Promotion Agencies (IPAs), will assist the DTI, DICT, and DOST in training their respective assigned personnel in assisting startups and startup enablers to comply with the standards and regulations for registration and requirements in Special Economic Zones.

Ensure the sustainable supply of a competitive, creative, and skilled workforce

The strong collaboration of the government with the academe and other private institutions will be established to align the school curriculum with the skills needed by the region. The IT-BPM industry will assist in establishing a career path for the complex and varied demands of the consumers and investors, may it be local or international stakeholders.

The region will also support the establishment of talent hubs, a center for excellence, and other human development programs to ensure a competitive and well-trained workforce. (See Chapter 4.2 for further discussion)

Strengthen the intellectual property rights ecosystem

The collaboration among the academe and concerned agencies on promoting awareness, monitoring, and protection of intellectual property rights will be strengthened to stimulate and protect the domestic cultural diversity of the CALABARZON. In particular, the National Commission for Culture and Arts (NCAA) will provide technical assistance to academe, LGUs, and other relevant offices to mainstream culture and culture-related concerns in their programs, projects, and activities. LGUs and other government offices will also be encouraged to raise awareness on culture by preparing and conducting IECs and developing other knowledge materials for the community and local and foreign tourists.

The CALABARZON LGUs will also coordinate with the NCCA to establish, maintain, and improve their respective registry of cultural properties. The LGUs, composed of the Sangguniang Kabataan, teachers, local artists, cultural workers, the community, and other interested stakeholders, will also create a heritage conservation council to identify and conserve distinctive cultural wealth in their jurisdictions. Among the registered cultural properties in CALABARZON are Pamanang Distrito ng Lungsod ng Biñan, Dambanang Homma-Yamashita, Dambanang Paciano Rizal, Hospital de Aguas Santos, Kapilya ng San Marcos, Museo ng Kasaysayang Pangkalikasan, Bahay ni Pelex Garcia Sr., and Bahay Pamahalaan ng Liliw. The complete list may be viewed on NCCA's official website. Establishing Schools of Living Traditions in each province will also be encouraged to ensure the transition of cultural heritage among generations.

Foster the creative industries

The creation of the Philippine Creative Industries Development Council will be supported. The council is mandated to spearhead the development and promotion of the creative industries. The RDC will actively participate in its activities, particularly in formulating the Creative Industries Development Plan, Creative Industries Investments Priority Plan, and other undertakings with regional concerns and significance.

CALABARZON will further improve its competitiveness among its ICT corridors through a skills enhancement program for its

workforce and strengthen collaboration among inter-regional stakeholders.

Develop technology parks, centers of creative excellence and innovation, and creative talent hubs; and improve shared services facilities for MSMFs

The IT-BPM industry will collaborate with the academe to support and hone new creative service providers in the region. The academe will work closely with the IBPAP to align the current curriculum with the skills requirements in CALABARZON to avoid skills mismatch.

Outcome 3: Inter-sectoral linkages enhanced

Facilitate physical connectivity and promote modernization and digitalization in transport and logistics

Enhancing the inter and multi-modal tourism routes through a strong collaboration among the DPWH, DOTr, and DOT will optimize routing networks, minimize shipping costs, carbon dioxide and carbon monoxide emissions. The LGUs will also be tapped for functional tourist signposting in remote areas where network connectivity is limited to aid travelers and goods and service providers to get to their destinations efficiently.

Improved infrastructures and tourism facilities will help increase the number of overnight tourists. The DOT will ensure that these tourist industries comply with the minimum health standards to boost the confidence of local and foreign travelers amidst the pandemic. Implementing the Green Corridor Initiative,

which will link various tourist destinations in the five provinces of CALABARZON, will require strengthened collaboration among DOT and the LGUs. It will also enhance the region's economic resilience opportunities and ecosystem quality, protect the provinces' heritage and culture, and maintain the industry's recovery in the new normal. LGUs will also be tapped for functional tourist signposting in remote areas where network connectivity is limited to aid travelers in getting to their destinations efficiently.

To ensure a continuous and timely flow of goods and services, the region will promote 24/7 assistance to business operations through modernized and digitalized technologies (See Chapter 13) and adopt the Logistics Services Philippines initiatives for improved coordination among major key players.

Develop competencies for business advisory services

With the implementation of the Mandanas ruling, LGUs will be capacitated to enhance their service delivery and acquire strategic skills to match local service firms with prospective investors. The DTI will lead the orientation among LGUs on the Strategic Investment Priority Plan (SIPP) which lists the priority activities for investment promotion and facilitates the fiscal and non-fiscal incentives provided under RA 11534 or the CREATE Act.

The establishment of Negosyo Centers in all cities and municipalities of CALABARZON will also be prioritized to improve the ease of doing business and expedite access of MSMEs to government services and business advisory services.

Strengthen the data collection ecosystem for market intelligence, insights, and industry studies

The government will tap the academe for digital databank information systems that MSMEs can access for market expansion, linkages, support services, and product development opportunities.

Through DTI - Board of Investments (BOI), the region will conduct several roadshows to promote the emerging industries that entrepreneurs engage in, which will also capture the interest of investors. This will engage the participation of private businesses, communities, and local officials for dynamic and harmonized policymaking processes.

Increase internet speed, coverage, and network

Enhanced internet connectivity and coverage will be prioritized in areas with a high concentration of e-commerce businesses, IT-BPM workers, creative industries, existing and emerging tourism sites and activities, and even transport terminals. Remote areas with the potential for tourist expansion will be assisted in building and operating network facilities and internet services (See Chapter 13).

Strengthen collaboration among academe, government, and industry boards in talent and skills development

Strengthening the academe-industry linkage is deemed to produce a globally-competitive workforce. Mapping out the skills required of the region will aid in the amendment of course offerings of the academe in the region and in developing the policies and programs of the government to match the needs and demands of the labor market, considering the changes brought about by the pandemic.

The region will participate in the succeeding activities of DTI-BOI on the National Skills Mapping Survey. This will further identify the IT-BPM industry's human resource development needs and subsectors for globally competitive workers.

Legislative Agenda

Table 9.1 presents the region's priority legislative agenda to reinvigorate the services sector.

Table 9.1 Legislative Agenda to Reinvigorate Services

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Open Access in Data Transmission Act	This initiative aims to level the playing field in the data transmission and telecommunications market. Its passage will strengthen the value chain linkages in the industry and services sectors, facilitate the full potential of e-commerce and digital trade, and establish reliable digital infrastructure for CALABARZON to meet the increasing demand for digitalization.	DICT, DTI
International Maritime Trade Competitiveness Bill	The initiative aims to address the expensive shipping rates that will aid businesses in a more efficient and low-cost importation and exportation of goods and services to and from CALABARZON.	Philippine Ports Authority (PPA)/ Maritime Industry Authority

Results Matrix

Table 9.2 presents the indicators and targets within the plan period to reinvigorate the services sector.

Table 9.2 Results Matrix: Reinvigorate Services

	BASELINE								
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	ЕОР	RESPONSIBLE AGENCY
Gross value-added growth rate in the services sector improved [%]	5.90%	6.2-7.2	6.7-8.4	6.7-8.3	6.7-8.3	6.7-8.3	6.7-8.3	6.7-8.3	NEDA, PSA
GVA in services increased ('000)	1,204,510.68			PSA					
Percent increase in the no. of MSMEs adopting e-commerce platforms	12,742	5%	5%	5%	5%	5%	5%	5%	DTI
Percent increase in the no. of employment generated from DTI assisted MSMEs	2,495	3%	3%	3%	3%	3%	3%	3%	DTI
Government budget allocations for R&D increased (%)	"5% (2022)"			DOST					



Advance Research and Development, Technology, and Innovation

Advance Research and Development, Technology, and Innovation

R&D pertains to the generation of new knowledge that can be used to introduce innovations and technologies. With the New Normal, advanced technologies will be needed to ensure efficient and effective performance of various sectors. This chapter aims to advance R&D, technology, and innovation from the generation of new knowledge to the commercialization and adoption of R&D products and accelerate innovation and entrepreneurship for regional development.

Assessment and Challenges

In 2021, the DOST launched the Compendium of S&T Statistics, a compilation of data from 2015 to 2018. It contains national data on the R&D sector, including collective R&D data in the private sector gathered through the annual survey of Philippine Business and Industry known as the Census of Philippine Business and Industry by the PSA.

CALABARZON's Gross Expenditures on Research and Development amounted to PHP5.09 billion, equivalent to 0.19 percent of its 2018 gross regional domestic product of PHP2.57 trillion at current prices.

To guide SUCs as well as other researchers on the development research areas in the region, the CALABARZON Regional Research and Innovation Committee (RRIC), formerly known as Regional Research Committee, crafted the CALABARZON Regional Development Research Agenda (RDRA) 2018-2022. The RDRA 2018-2022 contains priority research areas on industry and services, agriculture, infrastructure, social

development, governance, ecology, and the environment. Similarly, the DOST crafted the HNRDA 2017-2022 to guide the prioritization of research programs and projects funded in the last five years.

The CALABARZON RRIC also showcased research findings of government, academe, and private sector researchers through the Research, Statistics, and Innovation (RSI) Forum. It is a biennial activity of the RRIC which aims to promote a culture of research and strengthen the statistical capabilities of academic institutions, government agencies, and LGUs.

While the region had several initiatives to improve and accelerate R&D, technology, and innovation, there are still some challenges that need to be addressed, which include the following:

Low number of enrollees in Science, Technology, Engineering, Agri-Fisheries, and Mathematics (STEAM) programs. There is a need to increase the number of enrollees in STEAM.

Changing landscape in R&D. There are changes in the research environment that calls for the reframing of the Research Agenda and Thrusts. It was noted that the changing research environment is primarily driven by higher education's increasing pivot to internationalization. In effect, R&D agenda and thrusts which typically address local issues may not attract international partners and funding agencies. Similarly, publishers of reputable international journals may also look for research articles with a more global perspective.

There is also a need for HEIs to coordinate with industry partners to ensure that their curricula and programs will be aligned with the needs of the industry and market.

Lack of directory of researchers and research institutions. CALABARZON is home to different research institutions. Among these are the research centers managed by the DENR-Ecosystems Research and Development Bureau, the UPLB, and the five SUCs. However, no research institutions and researchers directory is available in the region. The directory can serve as a reference for government agencies, LGUs, the private sector, and other researchers on which institution or researcher to tap for research-related concerns.

Limited programs and teaching personnel to support the conduct of data-driven policy research. Not all academic institutions have existing programs that will facilitate the engagement of faculty members in datadriven policy research. Although there are policies in place to provide equivalent teaching load or incentives to faculty researchers, the limited number of teaching personnel and the increasing number of enrollment subsequently increase the workload of faculty members resulting in research work often being set aside. Vacant positions in SUCs must be filled up.

Inadequate laboratory/instrument to undertake research. Although universities/ academic institutions have existing laboratory facilities, not all have new or advanced facilities due to limited approved capital outlay funding. This can affect the SUCs' transition from a traditional teaching university into a research university.

Lack of annual data for S&T indicators and weak baseline data on the market and customers' needs. When conducting a research study, it is important to consider the market's and customers' needs. However, baseline data is weak, and only a little information on the market's and customer's needs is available.

Meanwhile, some S&T indicators do not have baselines and targets due to the unavailability of data from data source agencies. This is due to the fact that the National R&D survey with regionally disaggregated data is not conducted every year.

Low level of Intellectual Property Rights (IPR) registration. In 2021, there was an increase in IPR registrations from 37 utility models (UM) and 20 industrial designs (ID) to 63 UM and 23 ID due to the increase in the workforce for online filing and IPR evaluation. However, IPR registrations are still low because

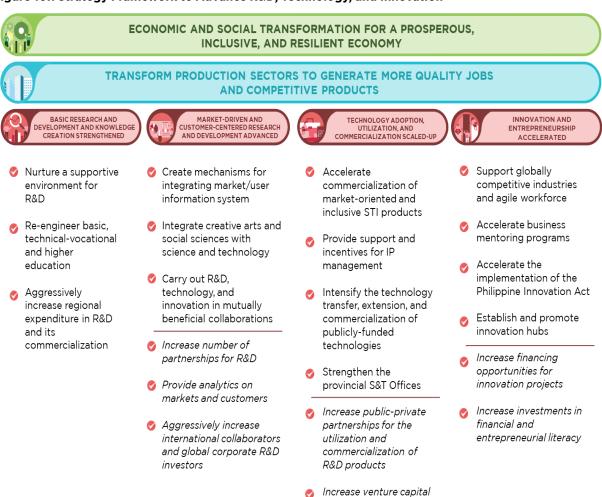
of the long turn-around or processing time. Issuance of a patent takes four years from the time of application, while utility models and industrial designs have an average waiting time of 10 months and seven months, respectively. Additionally, due to low awareness on the benefits of IPR, not all researchers apply for it after completing their research.

Barriers to building an innovative and entrepreneurial culture. There is a need to include R&D programs and the value of innovation and entrepreneurship in the curriculum of all levels. Human resources need to be upskilled and reskilled to improve their productivity and competitiveness. Similarly, MSMEs and startups need support

Strategy Framework

The strategy framework shows the areas of focus to advance R&D, technology, and innovation. Achieving this will result in four desired outcomes: a) basic research and development and knowledge creation strengthened; b) market-driven and customer-centered research and development advanced; c) technology adoption, utilization, and commercialization scaled up; and d) innovation and entrepreneurship accelerated.

Figure 10.1 Strategy Framework to Advance R&D, Technology, and Innovation



investments

and expertise to become innovative and competitive.

Strategies

Outcome 1: Basic research and development and knowledge creation strengthened

There is a need to produce and develop quality human capital who can conduct basic research to improve the R&D environment of the region. Further, there is a need to increase R&D investments and improve basic, technical-vocational, and higher education curricula.

Nurture a supportive environment for R&D

The government and private sector will work together to build an environment conducive to R&D. Republic Act No. 8439 or the Magna Carta for Scientists, Engineers, Researchers, and other S&T Personnel in the Government, and RA 11035 or the Balik Scientist Act, will continuously be promoted and strengthened to maintain the skills and human resources for science, technology, and innovation (STI). Incentives will be given to encourage faculties to conduct research responsive to the region's needs. Further, filling the vacant positions will be pursued by the CALABARZON SUCs to increase the number of faculty members who can do research.

Bottlenecks in administrative processes like procurement will be addressed to ensure efficient and timely implementation of publicly funded R&D. Laboratories, research facilities, technology parks, technology business incubators, and other R&D-related infrastructures will be built to reduce the costs

and risks for private R&D. Improvement of laboratory facilities will be undertaken to allow students, faculty, and researchers to conduct experiments and develop technologies for innovation. The engagement of HEIs in data-driven policy research will be strengthened through a strong link between local and international researchers and research institutions.

DOST Region IV-A will continue to strengthen the R&D capability of its laboratories. The socioeconomic research and policy laboratories and centers will be strengthened to support the development of data-driven insights and optimal policy options for advancing R&D, technology, and innovation.

As part of their initiative to improve and strengthen the R&D culture in their universities, the CALABARZON SUCs will pursue the completion of ongoing R&D facilities and construct new laboratories and hubs. Among these are the following:

- 1) Ongoing: a) Cavite State University's (CvSU) Science, Technology, and Applied Research Center; b) Southern Luzon State Universities' (SLSU) research laboratory and center,
- 2) Proposed: a) Batangas State University's (BatStateU) Technohub and Knowledge,

Innovation, Science, and Technology (KIST) Parks; b) CvSU's research building and laboratories; c) SLSU's technology hub; and d) University of Rizal System's agribusiness and agro-biotechnology center.

Funding agencies and R&D institutions will be encouraged to institutionalize technology foresight. This systematic process provides anticipatory knowledge on challenges and prospects that may emerge in the future, making STI future-oriented and proactive in responding to future opportunities and threats.

Re-engineer basic, technical-vocational, and higher education

Curricula of basic, technical-vocational, and higher education will be redesigned to cope with changes in the R&D landscape. The DepEd Region IV-A, CHED Region IV-A, and TESDA Region IV-A, in consultation with SUCs and HEIs in CALABARZON, will be encouraged to explore the inclusion of programs that a) trigger Filipinos' drive for curiosity and discovery, b) cultivate critical thinking, growth mindset, communication, and decision-making skills, c) enable adaptability to the uncertainties of the environment, and d) develop more trusting and

more collaborative relationships with colleagues (See Chapters 4.2 and 6 for discussions on curricula redesigning).

Aside from the Regional Training Center in Batangas Province, additional TESDA Technology Institutions will be considered for upgrading into Regional Technical Vocational Education and Training (TVET) Innovation Centers or RTICs through the SIPTVETS Project. It will enhance the delivery of TVET programs which are more demand-driven and industry-led (See Chapter 4.2 for further discussion on the SIPTVETS Project).

Aggressively increase regional expenditure in R&D and its commercialization

The government will increase R&D investments beneficial to CALABARZON and can encourage private R&D expenditures. In addition, the increase in investments will enable the establishment and sustainable operation of R&D Centers managed by the SUCs. These investments will support the research and innovation areas identified in the PAGTANAW 2050, the CALABARZON RDRA, and HNRDA.

Outcome 2: Market-driven and customer-centered research and development advanced

To sustain technology commercialization and address market failures or demand concerns in the private sector, universities and research institutions will employ a market-driven and customer-centered approach to conducting research.

Create mechanisms for integrating market/user information system

Government agencies, SUCs, and R&D institutions in the region will collaborate to explore the creation of a database portal containing region-wide, market-customer information such as market trends, market price, customer needs and preferences, and customer demographics. This will allow researchers in the region to easily access

market-customer information relevant to their research study.

Establishing a regional data-driven decision support system (DSS) that will guide industry players, MSMEs, and the government in prioritizing projects contributing to socioeconomic growth will be considered. The DSS will be a data repository, and will include data on a pool of experts in various fields.

Integrate creative arts and social sciences with science and technology

Human resources on R&D, technology, and innovation will be produced and capacitated to encourage collaboration between and among scientific, social, and creative talents. In particular, the government will bolster the participation of human resources from the creative arts and social sciences as they introduce perspectives on the experience and social usage of technology and innovation and contribute to the dynamic process of creating value and competitive advantage of R&D, technology, and innovation products.

DOST Region IV-A, through its Science Education Institute (SEI), will continue to provide undergraduate and graduate scholarships as well as advanced specialized training to develop the S&T capacity of the region needed to produce demand-driven outputs. DOST-SEI will also promote S&T culture in the region.

Carry out R&D, technology, and innovation in mutually beneficial collaborations

Collaborative and partnership projects will be pursued among LGUs, government agencies, academic institutions, and the private sector. Licensing of intellectual properties generated by public universities and research institutes will be facilitated. Incentives will also be given to research faculties of SUCs.

The value chain of technology will be established by connecting strategic industry partners, cooperatives, associations, traders, suppliers, and manufacturers with the R&D institutions to work on areas with significant socioeconomic impact.

Increase number of partnerships for R&D

Government sector will tap the private sector and government-funded academic institutions to guide researchers and scientists on consumer trends and market system requirements, strategies to address challenges and opportunities, and generating private investments in S&T activities. The academe will also tap the private sector for academe-industry collaborations.

DOST Region IV-A will continue the implementation of the S4CP to ensure that the outputs of the government's support to R&D and innovation are demand-driven and will improve the STI situation in the region. This can lead to increased investment in R&D and S&T human resource development. The S4C Program is composed of four subprograms: a) Niche Centers in the Regions for R&D (NICER) Program; b) R&D Leadership (RDLead) Program; c) Collaborative R&D to Leverage PH Economy (CRADLE) for RDIs and Industry Program; and d) Business Innovation through S&T (BIST) for Industry Program.

Provide analytics on markets and customers

Inputs from the private sector in the region, particularly on customers' preferences and product trends, will be gathered to improve R&D products and ensure their commercialization. The collection of data will comply with the Data Privacy Act.

Aggressively increase international collaborators and global corporate R&D investors

Government agencies and academic institutions will explore possible international collaborations to develop their products and services further and promote the region's attractiveness as an investment hub. Funding of R&D projects through development partners and international organizations will also be explored.

Outcome 3: Technology adoption, utilization, and commercialization scaled-up

R&D does not only focus on product development but also on distribution, adoption, utilization, and commercialization. To achieve these, the following are needed: 1) public funds and private investment; 2) public sector research, extension programs, and private R&D; 3) scientific, technology management, product development, diffusion, and commercialization skills.

Accelerate commercialization of market-oriented and inclusive STI products

Fund support for the commercialization of publicly and privately funded STI products will be increased. Among these is the Innovation Fund facilitated by the National Innovation Council. Financial support for research projects and programs consistent with the priorities identified in the HNRDA will also be provided.

DOST Region IV-A will continuously promote its programs, projects, and technologies through social media platforms, S&T fairs, conventions, and seminars to increase public

awareness. It will also continue delivering relevant technologies for wide adoption and utilization by the region's government and private sector.

The CALABARZON RRIC and the RDC will continue supporting R&D projects and technologies ready for commercialization. Government agencies, SUCs, and R&D institutions may present their projects and technologies to the RRIC. Upon review, the RRIC will endorse them to the RDC for support and adoption of agencies, LGUs, and other concerned stakeholders in CALABARZON. Among the technologies endorsed by the RDC are the following:

- Dual Drum Composter of the DOST
 Industrial Technology Development Institute (ITDI);
- 2. Carrageenan Plant Growth Promoter of the Philippine Nuclear Research Institute in partnership with the UPLB and Philippine Rice Research Institute;
- 3. Project SARAI of UPLB;

- 4. Universal Structural Health Evaluation and Recording System of DOST and Mapua University; and
- Emergency Disinfection System of DOST-ITDI.

The CALABARZON RRIC will continue conducting the RSI Forum to give researchers, both students and professionals, a venue to share their research findings for possible adoption and commercialization of LGUs, government agencies, and the private sector.

Provide support and incentives for Intellectual Property management

The IPOPHL, in partnership with academic institutions and LGUs, will conduct activities that can increase awareness of the significance of IP to regional development among public and private researchers, policymakers, and the general public. These activities can include orientation, seminars, and patent drafting workshops, among others, and can be conducted in partnership with government agencies with expertise in IP management. The process for IPR application/registration will be streamlined to reduce the turn-around time experienced by applicants in the region. More Innovation and Technology Support Offices will be set up to strengthen the presence of IPOPHL in CALABARZON and improve the processing of IPR applications.

IPOPHL will be encouraged to consider the creation of a Regional Central Database for IP Assets filed and registered to facilitate the monitoring of collective IPs within the region.

Intensify the technology transfer, extension, and commercialization of publicly funded technologies

Government agencies with an R&D mandate, such as DOST Region IV-A, will support and assist public research institutions and SUCs in promoting and commercializing their products and technologies within the region. Additionally, translation of publicly funded technologies into viable packaged materials such as publication and knowledge products will be pursued to ensure efficient and effective technology transfer.

Activities will include formulating, implementing, monitoring, and evaluating technology-specific communication plans to ensure public adoption. Data management will also be at the forefront to ensure the availability of a wide array of resources on the various technologies developed by the government.

In line with RA 10055 or the Philippine Technology Transfer Act of 2009, the government will continue facilitating the transfer, dissemination, and commercialization of technology, intellectual property, and knowledge products produced through R&D funded by the government. Further, SUCs and HEIs will be encouraged to establish more knowledge and technology transfer centers.

The research institutions and SUCs will tap the private sector for assistance in the promotion, utilization, commercialization, and possible investment in their technology.

Strengthen the provincial S&T Offices

The S&T area of each province will be strengthened through the Provincial S&T Offices (PSTOs). In coordination with concerned agencies, LGUs, and stakeholders, the DOST will fast-track the implementation of RA 11914 or the Provincial Science and Technology Office Act. With the PSTOs, each province's S&T needs and opportunities will be identified. Various DOST programs and projects beneficial to the provinces will be implemented, such as technology promotion and transfer, S&T human resource development, S&T promotion, information dissemination, and technical and consultancy services. S&T programs will also be implemented effectively through PSTOs' linkage with other provincial offices, LGUs, academe, and non-governmental offices.

Increase public-private partnerships for the utilization and commercialization of R&D products

SUCs and public research institutes in the region will collaborate with the industry

sector for product development and the establishment of data analytics hubs for various sectors. The industry sector will also assist in transitioning from the laboratory to the utilization and commercialization of new technologies and services in the marketplace.

The academe-industry collaboration will be strengthened to promote collaborative research, product development, and intellectual property generation and commercialization through the Knowledge, Innovation, and Science and Technology Park, RIICs, and other collaborative programs.

Increase venture capital investments

Venture capital companies will be encouraged to invest in technologies developed by startup innovators. Similarly, entrepreneurs who know how to establish new businesses will be encouraged to share their expertise with aspiring innovators. The support from capital companies and entrepreneurs will help startups to develop and commercialize their products.

Outcome 4: Innovation and entrepreneurship accelerated

R&D involves both innovation and entrepreneurial skills. Developing a new product, service, or technology requires innovative skills, while transforming these new ideas into business opportunities requires entrepreneurial skills. A strong culture of innovation and entrepreneurship is needed to enable the region to produce high-quality jobs and competitive products (See Chapter 8 for a discussion on the innovation of MSMEs and startups).

Support globally competitive industries and agile workforce

SUCs are encouraged to establish more industry hubs in their respective provinces to enhance the competitiveness of the creative and S&T industries leading to creativity and dexterity of the region's human capital. R&D programs for lifelong learning on STEAM will be pursued to upskill, re-skill, and cross-skill STEAM workers in the region.

The SIPTVETS Project of TESDA will help strengthen the competitiveness and readiness of the mid-level workforce by providing quality TVET training accessible through RTICs.

DOST Region IV-A will continue implementing the Small Enterprise Technology Upgrading Program (SETUP) to assist CALABARZON MSMEs in utilizing technological innovations to boost productivity and competitiveness.

Accelerate business mentoring programs

Government agencies and enterprises with expertise in establishing a business will provide mentoring, coaching, and technical assistance to technology startups.

One of the initiatives that will be strengthened in the region is the Kapatid Mentor ME (KMME) Program by the DTI Region IV-A, which aims to help MSMEs scale up their business through weekly coaching and mentoring by business owners and practitioners on different functional areas of entrepreneurship.

Another initiative is the iFWD PH (Innovations for Filipinos Working Distantly from the Philippines) Program of DOST Region IV-A, which aims to provide opportunities for OFWs and their families to establish technology-based enterprises. This program funded four business proposals by OFWs in CALABARZON from 2021 to 2022. DOST Region IV-A will continue to assist and capacitate OFWs interested in establishing and managing STI-based businesses.

Accelerate the implementation of the Philippine Innovation Act

The National Innovation and Agenda Strategy Document will set the innovation goals and provide the strategies and action plans for improving innovation governance. The Innovation Fund will continuously be administered to support the implementation of potential R&D studies.

Stakeholders in the region will be encouraged to submit R&D proposals for consideration under the Innovation Fund. NEDA will conduct an orientation to guide agencies, LGUs, and SUCs on the documentary requirements and timelines.

Establish and promote innovation hubs

The CALABARZON RIIC will undertake more innovation activities. University-based technology business incubators (TBIs) established within the region will be promoted for possible adoption. Support for accelerating startups developed by the TBIs will be provided, such as increased awareness and access to venture financing.

Programs related to developing cooperationled business hubs for smart food value chains, building up traceability systems for increased competitiveness, data management and transparency, and integrated market information systems will be supported.

DOST Region IV-A will continue to maintain innovation centers and laboratories. Among these are the following: Regional Design and Creativity Hub for Innovation in MSMEs and Education; Center for Hazard and Environment

Resource Mapping; Laguna State Polytechnic University Ideation, Design, and Development Laboratory; and BatStateU and Laguna Food Innovation Center.

Increase financing opportunities for innovation projects

Support for startups' advocacy of HEIs and SUCs in the region will be strengthened. Startups produced through the public-private partnership will also be supported. Access to sustainable funding opportunities for startups

and spinoffs will be provided through organized Venture Capitalists and Angel Investors.

Increase investments in financial and entrepreneurial literacy

The private sector will be encouraged to invest more in startups and provide programs that will help improve aspiring entrepreneurs' entrepreneurial and decision-making skills. These programs may include financial and business development training.

Legislative Agenda

Table 10.1 presents the region's priority legislative agenda to advance research and development, technology, and innovation.

Table 10.1 Legislative Agenda to Advance Research and Development, Technology, and Innovation

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY						
Basic Research and Development and Knowledge Creation Strengthened								
Establishing the Virology and Vaccine Institute of the Philippines (VIP)	The VIP aims to make the country globally competitive in the field of virology. It will benefit the region in terms of detecting, identifying, and responding to viruses that affect the citizens and resources.	DOST, DOH						
Open Access in Data Transmission Act	The proposed legislation aims to formulate a policy that will encourage and support HEIs to facilitate micro-credentialing. This will help the region produce and capacitate human resources on R&D, technology, and innovation by including short-term R&D programs. It will enable upskilling, re-skilling, and cross-skilling of workers in the region (See Chapter 6 for a discussion on the creation of a micro-credentials marketplace).	CHED, HEIS						
Market-Driven and Customer-Centered	d Research and Development Advanced							
Promoting the Development of the Bamboo Industry by Strengthening the Philippine Bamboo Industry Development Council, Creating the Bamboo Industry Research and Development Center, Providing Incentives for Bamboo Plantation Development, and Appropriating Funds Therefore	The bill aims to develop the bamboo industry by promoting bamboo planting and accelerating the growth of bamboo-based designs and products. The bill will contribute to the growth of the bamboo industry in some areas in the region through improved product development and capacity building of bamboo farmers, processors, and designers.	DENR, DTI, DOST						
An Act Strengthening the Framework and Support System for the Ownership, Management, Use, and Commercialization of OneLab Program	It will strengthen the scientific and technological human resources of the academe, public and private institutions, and locally registered enterprises to promote knowledge sharing and accelerate the flow of laboratory services and new technologies into the region.	DOST						

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY							
Technology Adoption, Utilization, and Commercialization Scaled-up									
Amending Section 177 and Section 216 of RA 8293, Otherwise Known as the IP Code of the Philippines, as Amended by RA 10372, and for Other Purposes	Seeks to amend the following sections of the IP Code: Section 177 to consider rampant digital reproduction of copyrightable works Section 216 to address increasing concerns on secondary liability and online copyright infringement issues It will protect researchers, inventors, and innovators in the region by considering the right of copyright owners to prevent others from copying, uploading, scanning, digitizing, or distributing their creative work.	IPOPHL							
An Act Institutionalizing the Creative Philippines Program and Providing Funds Therefore	The bill aims to support MSMEs in developing their products through the use of technologies. It will empower, promote, and develop MSMEs in the region through indigenous raw materials, local skills and talents, and unique and creative processes. This will result in MSMEs in the region becoming more productive and competitive.	DTI, LGUs							
Innovation and Entrepreneurship Accelerated									
Establishing the Science for Change Program and Appropriating Funds Therefore	DOST								

Results Matrix

Table 10.2 presents the indicators and targets within the plan period to advance research and development, technology, and innovation.

Table 10.2 Results Matrix: Advance Research and Development, Technology, and Innovation

	BASELINE								
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	EOP	RESPONSIBLE AGENCY
Basic Research and Developme	ent and Knowled	lge Creatio	on Strength	nened					
Regional Expenditure in R&D increased (in thousand pesos)1	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	DOST
Number of STEAM graduates increased: DepEd	48,917 (2021)								DepEd, SUCs
BatStateU		51,657	53,234	54,852	55,949	57,068	58,209	58,209	
SLSU	3,298 (2022)	3,800	4,000	4,000	4,000	4,000	4,000	4,000	
URS	196 (2021)	805	1,005	1,205	1,405	1,805	2,005	2,005	
ONO	592 (2022)	600	620	630	640	650	680	680	
Academe-Industry-Governmen									
BatStateU	29 (2022)	29	29	29	29	29	29	29	

	BASELINE										
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	EOP	RESPONSIBLE AGENCY		
Percentage increase in public R&D products adopted and/or commercialized											
Ecosystems Research and Development Bureau-Urban and Biodiversity Research Development and Extension Center (ERDB-UBRDEC)	TBD	TBD	17%	25%	30%	33%	36%	36%	DOST, ERDB, SUCS		
BatStateU	"2% (2022)"	3%	4%	4%	4%	4%	4%	4%			
Number of collectively produce	ed IPs increased	d									
BatStateU		147	155	162	171	180	189	189	DOST, IPOPHL, HEIs, SUCs, Industry Locators, LGUs		
CvSU	"7 (2022)"	12	13	14	15	16	17	17	LOCATORS, LIGUS		
SLSU	"3 (2021)"	4	5	6	7	8	9	9			
URS	"8 (2022)"	9	10	11	12	13	14	14			
Number of innovation centers	established/ma	intained					l				
DOST	"5 (2023)"	5	6	6	7	7	7	7	DOST, DTI, SUCs		
BatStateU	"13 (2021)"	14	15	16	17	18	19	20			
CvSU	"1 (2022)"	2	2	3	3	3	4	4			
SLSU	"0 (2022)"	1	1	1	1	1	1	1			



CHAPTER 11

Promote Trade and Investments

This chapter discusses the strategies to promote trade and investment in CALABARZON, which will contribute to Agenda 4 of the administration's Eight-Point Socioeconomic Agenda to generate more quality jobs and competitive products and services. The two outcomes identified for the region's trade and investment subsector are: a) CALABARZON export sectors restored, sustained, and strengthened, and b) total investments increased and targeted to boost trade, skills upgrading, and sustainability.

The CALABARZON export sectors shall be restored, sustained, and strengthened by resolving key constraints to export growth and competitiveness and implementing targeted, more granular strategies. Among the strategies to increase the total investments in CALABARZON are maximizing synergy and aligning national and local government investment promotion strategies, developing unique locational assets, especially in rural areas, for foreign direct investments, and launching an aggressive branding campaign.

Assessment and Challenges

From 2016 to 2021, CALABARZON had an increasing number of operating ecozones, from 49 to 58 (Table 11.1), brought about by major public infrastructure developments in the region. Laguna Province has the most ecozones among the five provinces, with 19.

The number of employees in ecozones increased from 464,267 in 2016 to 537,355 in 2021 (Table 11.1). Of the region's five provinces, Laguna Province was consistently the top annual contributor to the trend. A good business climate, stable peace and order situation, and assistance by government agencies such as PEZA, DTI, and DOLE contributed to this positive development.

Table 11.1 Number of operating economic zones, average number of employment in economic zones, approved investments (PHP Million), and value of exports (USD Million) in CALABARZON, 2016-2021

Year	2016	2017	2018	2019	2020	2021
Number of economic zones	49	54	54	56	57	58
Average number of employment in economic zones	464,267	491,234	516,634	525,245	507,472	537,355
Approved investments (PHP Million)	79,460	69,484	43,248	42,465	27,087	25,025
Value of exports (USD Million)	23,996	26,217	28,627	27,643	27,796	31,713

Source: PEZA

On the other hand, there was a decreasing trend in approved investments in CALABARZON from 2016 to 2021 (Table 11.1). The repeal of exemption from national and local taxes of establishments operating within ecozones may have contributed to this negative trend. The more competitive investment packages in other countries (e.g., Cambodia, Vietnam, and China) and the almost saturated ecozones in Batangas and Laguna also contributed to the decline. Still, Laguna and Batangas were the top contributing provinces for approved investments in CALABARZON for 2016 and 2017-2021, respectively. The restrictions brought about by the COVID-19 pandemic have also delayed PEZA's approval of investment pledges and projects filed in early 2020 until mid to late 2022. However, PEZA continued to operate and attract investments during the pandemic by implementing measures to ensure its continuous operation and services, such as the inclusion of COVID-related expenses as deductibles for enterprises availing of the five percent gross income earned incentive, the inclusion of IT-BPO companies and economic frontline workers in the subgroup of the A4 vaccination priority list to hasten the attainment of herd immunity for the reopening of the economy, and the grant of 90 percent work-from-home arrangements.

On the other hand, CALABARZON's value of exports from 2016 to 2021 increased. (Table 11.1). Again, Laguna Province was the top contributor to this among the five provinces.

CALABARZON was always in the top five regions in the country in terms of merchandise exports from 2017-2021 (Figure 11.1). It ranked second in 2017, fourth in 2018, and fifth in 2019, 2020, and 2021. Laguna is among the top three exporters of merchandise in the Philippines from 2017 to 2021 (Table 11.2).

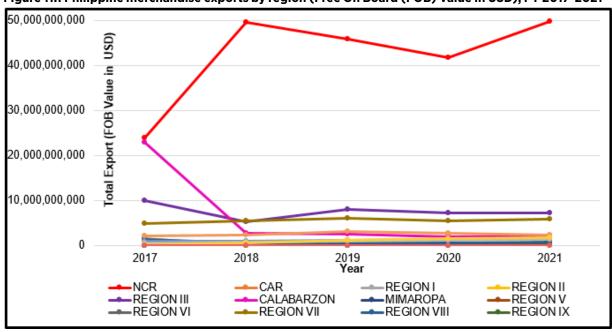


Figure 11.1 Philippine merchandise exports by region (Free On Board (FOB) Value in USD), FY 2017-2021

Source: DTI-Export Marketing Bureau's Tradeline Portal, accessed Dec. 13, 2022

Table 11.2 Philippine merchandise exports by province of origin (FOB Value in USD), CALABARZON, FY 2017 to 2021

Province	2017		2018		2019		2020		2021	
PIUVIIILE	Value	R								
Laguna	15,598,142,838	2	23,679,163,105	1	19,857,087,751	2	18,352,809,662	2	18,964,573,758	2
Cavite	10,262,585,633	3	7,894,458,185	3	5,926,369,333	4	4,656,766,936	5	4,419,169,670	4
Batangas	3,731,655,438	7	7,044,183,730	4	5,375,691,819	5	4,028,763,189	6	3,990,556,606	5
Quezon	1,084,650	46	83,692,288	29	5,838,945	25	15,279,979	25	3,510,635	26
Rizal	5,135,898	34	26,327,820	40	4,324,770	28	13,590,775	29	6,647,960	21

Source: DTI-Export Marketing Bureau's Tradeline Portal, accessed December 13, 2022

CALABARZON's top merchandise exports for the same period (Figure 11.2) are electronic products; other manufactures; machinery and transport equipment; other electronics; others; wood manufactures; miscellaneous manufactured articles; chemicals; garments; and petroleum products. The top export markets of CALABARZON for the same

period (Figure 11.3) are the United States of America, Japan, Hong Kong, China, Germany, Singapore, Thailand, South Korea, Taiwan, and Malaysia. It is worth noting that exports significantly declined from 2017 to 2018 due to global economic factors such as the US-China trade dispute, and slowing growth in other key markets such as the European Union.

Figure 11.2 Top Philippine merchandise exports from CALABARZON (FOB Value in USD). FY 2017 to 2021 2021 2020 2019 2018 2017 0 5,000,000,000 15,000,000,000 20,000,000,000 10,000,000,000 FOB Value in USD ■ Electronic Products Other Manufactures ■ Machinery & Transport Equipment Chemicals ■ Other Electronics ■ Others ■ Petroleum Products Misc. Manufactured Articles, N.E.S.
Wood Manufactures ■ Garments

Source: DTI-Export Marketing Bureau's Tradeline Portal, accessed Dec. 13, 2022

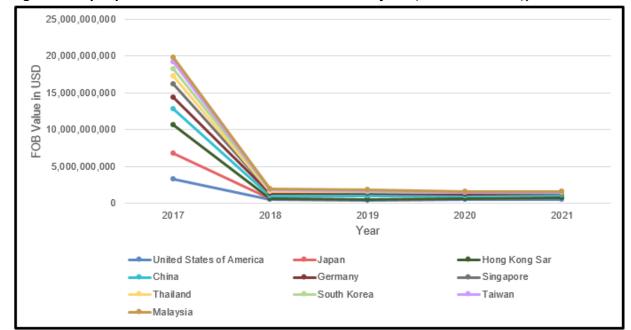


Figure 11.3 Top Export Markets of CALABARZON in the last five years (FOB Value in USD), FY 2017 to 2021

Source: DTI-Export Marketing Bureau's Tradeline Portal, accessed Dec. 13, 2022

The challenges faced by CALABARZON in the area of trade and investment are as follows:

Policies that negatively affect the business environment. As mentioned in the previous section, the decrease in approved investments was brought about by the repeal of exemptions from national and local taxes of establishments operating within ecozones and the more competitive investment packages in other countries (e.g., Cambodia, Vietnam, and China).

Some businesses, such as ecozone developers and ecozone locators/exporters, are concerned with some of the provisions in the implementing rules and regulations of the CREATE Law, including the lack of recognition of taxes or tax exemptions across border jurisdictions. They believe that the law may adversely affect local suppliers' sales since it favors importing instead of buying from a local supplier because of the tax imposed on exporters for locally purchased spare parts or items. In addition, they believe

that the CREATE law's income tax reduction offers little difference from the current tax on gross income paid by exporters, hence, may affect the region's competitiveness considering the better incentives offered abroad.

Moreover, the rigid provisions of RA 9178 or the Barangay Micro Business Enterprises Act of 2002, hinder small businesses from availing of the law's incentives. The law's provision for incentives is not fully implemented in some LGUs.

Inefficient infrastructure and utilities negatively affect the business environment.

Another challenge in the business environment is the need for more efficient transportation and logistics for goods. Poor road conditions and traffic congestion limit delivery trucks' daily trips. Shipping is also more expensive in CALABARZON compared to its neighboring countries because it lacks the scale of exports needed to lower costs.

There is also a need to improve the efficiency and affordability of electricity. The Philippines is an importer of fuel, which serves as input in producing electricity for domestic use. As such, the country is highly susceptible to fluctuating fuel costs in the global market. Moreover, the

current increase in fuel prices adversely affects the cost of other utilities, consequently affecting the business environment. Chapter 13, "Expand and Upgrade Infrastructure," further discusses power generation and electricity.

Strategy Framework

The strategies to promote trade and investments shall focus on restoring and strengthening the exports sector in CALABARZON, and increasing total investments, boosting trade, upgrading skills and sustainability.

Figure 11.4 Strategy Framework to Promote Trade and Investments



TRANSFORM PRODUCTION AND SERVICES SECTORS TO GENERATE MORE QUALITY JOBS AND COMPETITIVE PRODUCTS AND SERVICES



PROMOTE TRADE AND INVESTMENTS IN GOODS AND SERVICES



CALABARZON EXPORT SECTORS RESTORED, SUSTAINED, AND STRENGTHENED



TOTAL INVESTMENTS INCREASED AND TARGETED TO BOOST TRADE, SKILLS UPGRADING, AND SUSTAINABILITY

- Resolve key constraints to export growth and competitiveness
- Proactively monitor and implement preventive measures and interventions for distressed firms
- Implement targeted, granular strategies to increase exports on three fronts: global value chain (GVC) export clusters; food and agri-marine; and laborintensive manufacturing
- Significantly diversify exports by fortifying the sectoral backward and forward linkages
- Advance purposive, assertive, and forward-looking preferential trade strategies
- Boost the region's supply of tradeable services

- Maximize synergy and decisively align national and local government investment promotion strategies
- Launch an aggressive branding campaign in CALABARZON to raise awareness of the new business climate ushered by most recent structural reforms
- Leverage the Strategic Investment Priority Plan (SIPP)
- Heighten CALABARZON's attractiveness to Foreign Direct Investments (FDI) by developing unique locational assets, especially in rural areas
- Increase attractiveness of CALABARZON for foreign or ESG investments
- Re-configure public-private social partnerships to build strong collaboration infrastructure that will serve common investment promotion campaigns, and longer-run joint strategies to improve CALABARZON's business climate

Strategies

Outcome 1: CALABARZON export sectors restored, sustained, and strengthened

Resolve key constraints to export growth and competitiveness. For policies affecting the business environment particularly exports, there is a need for the Department of Finance (DOF) to review Bureau of Internal Revenue (BIR) Revenue Memorandum Circular 49-2022 (Amends pertinent portion of the Questions and Answers in Revenue Memorandum Circular No. 24-2022 to align them with the provisions of Republic Act No. 11534 or "Corporate Recovery and Tax Incentives for Enterprises" and its Implementing Rules and Regulations). This circular subjects ecozone operators and service providers to value-added tax. This matter is also discussed as among the constraints in the supply capability of Philippine exports in the Updated Philippine Export Development Plan (PEDP) 2023-2028. The region will consider the strategic actions laid down in the PEDP to achieve high growth in the electronics and electrical industry, which includes: compensatory incentives to offset cost handicaps, such as retention of the five percent gross income tax scheme, Value Added Tax exemption on imports, and zero-rating on local purchases of exporters, narrowing the power cost differential vis-à-vis ASEAN neighbors; and joint government and private sector programs for skills development and raising local value added.

To improve the business environment and encourage more investors and exporters, the DOF will review the provisions of the CREATE Law and its implementing rules and regulations.

Meanwhile, academe-industry linkage will be strengthened so that industries will have a capable workforce.

There is also a need for government agencies and LGUs to support legislations such as the Ease of Doing Business Act, Public Service Act, Foreign Investment Act, and Retail Trade Liberalization Act to facilitate the establishment of foreign businesses, startups, retailers, and other enterprises in the region. The region will collaborate with the Anti-Red Tape Authority to create a more enabling business environment. Government agencies and LGUs will also support the implementation of the proposed Executive Order providing guidelines to expedite the processing and issuance of permits and licenses for the implementation of strategic investments in the Philippines. It also provides for the creation of a green lane to expedite and streamline the process and requirements for the issuance of permits and licenses. The RDP's Chapter 15 further discusses the implementation of the Ease of Doing Business.

CALABARZON agencies and LGUs will also support the provisions of the proposed National Quality Infrastructure Act regarding quality standards and certification policies on products to support exporting firms in the region to meet the demand of quality-exigent foreign and local markets.

Proactively monitor and implement preventive measures and interventions for distressed firms. DTI Region IV-A will implement programs and preventive measures to support export pillar sectors and MSMEs in stages of transition from domestic to foreign markets and scale shifts and assist firms experiencing exporting issues.

Implement targeted, granular strategies to increase exports on three fronts: Global Value Chain (GVC) export clusters; food and agrimarine; and labor-intensive manufacturing. DTI Region IV-A and DTI-Export Marketing Bureau will conduct information advocacy activities to inform government agencies, LGUs, academe, and the private sector of the contents and target export clusters in the new PEDP 2023-2028 that will be launched in 2023.

Similarly, the CALABARZON RDC-Investment Promotions Group (RDC-IPG) will use the PEDP as a benchmark in preparing investment promotion activities for the next six years. The RDC-IPG will consider the export clusters mentioned above in the region's discussion and formulation of the Strategic Plan on Investment Promotion.

Significantly diversify exports by fortifying the sectoral backward and forward linkages. DTI Region IV-A and its attached agencies will provide value chain interventions, focusing on organizational development and brokering multi-sectoral partnerships to capacitate small exporting firms. Aligning with the national strategy, the region will identify and support local firms that have trigger roles in linking upstream and downstream sectors in the economy. DTI will provide services through its Shared Service Facilities to include common business services

(e.g., marketing, digitization, administrative and finance, promotions, logistics, distribution, and assistance in consolidation), especially for MSMEs and cooperatives with potential export transitions. Cooperative Development Authority Region IV-A will also intensify the promotion and usage of its CoopBiz online platform for the promotion of products of cooperatives in CALABARZON in the domestic and international markets.

Advance purposive, assertive, and forwardlooking preferential trade strategies. DTI, through its concerned attached agencies, will do refresher information sessions on Doing Business in Free Trade Areas throughout CALABARZON, as well as establish online platforms for queries pertaining to such, to encourage and assist entrepreneurs in using Free Trade Agreements (FTAs) and Generalized System of Preferences and benefit from them. Understanding emerging and new markets and instruments such as FTAs will help exporters address new challenges in the global business environment.

Boost the region's supply of tradeable services. IT-BPM, one of the priority industries in CALABARZON, provides an excellent opportunity for the large pool of young talents with digital and creative skills in the region to provide appropriate support mechanisms for export-related firms and creative industries. Therefore, DTI Region IV-A, in partnership with its attached agencies and the IBPAP, DOST Region IV-A, DICT Region IV-A, and the academe will create a visible concentration of a digital-savvy pool of talents and provide necessary support through training and incentives to retain them and improve the

practice of their skills to support the export industry within the region.

Outcome 2: Total investments increased and targeted to boost trade, skills upgrading, and sustainability

Maximize synergy and decisively align national and local government investment promotion strategies. Investment promotion strategies must be in harmony at the national and local levels. Therefore, the BOI (Secretariat of Investments Promotion Unit Network (IPU-Net through their Investment Assistance Service arm) at the national level) will conduct orientation on IPU-Net's functions with the CALABARZON - RDC-IPG. CALABARZON's local chief executives will also set up and operationalize its local investment and incentives board and Local Economic Investment Promotions Office, which will focus on investments and revenue generation. On the other hand, DTI Regional Operations Group, DTI Region IV-A, and DILG will revisit and review provisions of RA 9178 or the Barangay Micro Business Enterprises (BMBEs) Act of 2002 in terms of a) granting incentives to enterprises; b) determining how to operationalize the local investment and incentives board of the LGUs; and c) ensuring its implementation.

There is also a need to conduct an inventory of prospective private lands that can be location options for investors. This is helpful because the BOI maintains an online database of investment-ready locations on its website. There is a need for more sites to be included in the database.

Launch an aggressive branding campaign in CALABARZON to raise awareness of the new business climate ushered in by most recent structural reforms. Launched in November

2020, the 'Make It Happen in the Philippines' campaign is the unified country branding campaign of the Philippines to promote the country as an investment destination. DTI (its central office investment and traderelated groups and regional office), BOI, and PEZA will lead in launching this campaign in CALABARZON through the conduct of orientations and capacity-building activities for government agencies, LGUs, and the private sector. The RDC-IPG will enhance its annual work and financial plan to contain innovative investment promotion activities and investment branding for the region.

Leverage the Strategic Investment Priority Plan (SIPP). The SIPP is a plan prepared by the BOI in coordination with the Fiscal Incentives Review Board of the DOF, investments promotion agencies, other government agencies administering tax incentives, and the private sector. The SIPP contains the: a) priority projects or activities, scope and coverage of location and industry tiers; b) recommendations for non-fiscal support; and c) other information, analyses, data, guidelines, or criteria as the BOI may deem appropriate to attract quality investments and generate jobs.

At the same time, the BOI will continuously conduct domestic roadshows on SIPP to government agencies, LGUs, and the private sector. These roadshows aim to promote investment opportunities that are entitled to government incentives.

Heighten CALABARZON's attractiveness to Foreign Direct Investments (FDI) by developing unique locational assets, especially in rural areas. CALABARZON's local chief executives will: a) initiate investment promotion activities for their localities through inbound and outbound missions, among others; b) focus on the investment priority areas of the RDC-IPG; c) create demand for industries/products unique to its localities; d) work with BOI in preparing location profiles for promotion to investors; e) streamline its processes to expedite the entry of foreign investors; f) update/enhance their local investment and incentives codes to make the location more attractive to investors: and g) utilize digital marketing in investment promotion. More ecozones should be established in Batangas, Rizal, and Quezon provinces.

Based on the Investment Priority Areas promotion collateral of the RDC-IPG (2019), the investment priority areas in CALABARZON are the following

- Agriculture, Fishery, and Forestry
 - swine production (Batangas, Quezon)
 - cacao production (five provinces)
 - coffee production (Cavite, Laguna, Batangas, Quezon)
 - dairy production (Batangas, Laguna, Quezon)
 - bamboo (5 provinces)
 - fish landing and fish processing (Quezon and Batangas)
 - establishment of a hatchery
- Manufacturing, including Agro-Processing
 - electronics
 - automotive
 - processed fruits and nuts (five provinces)
 - chicken egg processing (Batangas)
 - establishment of grain terminal (Batangas)

- cacao processing (five provinces)
- coffee processing (Cavite, Laguna, Batangas, Quezon)
- Halal processing
- dairy processing (Batangas, Laguna, Quezon)
- coco coir (Laguna, Quezon)
- virgin coconut oil and cocosap sugar (Quezon)
- wearables and homestyle (five provinces)
- Industries/Knowledge-based Creative Services
 - Information Technology-Business Process Management
- Alternative energy vehicles
- **Innovation Drivers**
 - Makapuno Research and Development Center (five provinces)
- Renewable energy
- **Tourism**
 - infrastructure development, i.e., bridges, roads, and ports (Rizal, Quezon)
 - investment accommodation in establishments of tourism-related facilities
- Industrial waste treatment
- Land mass transport
- Investment in utilities, i.e., potable water, power, and telecommunications/internet (5 provinces)
- Sewerage treatment plants (all cities and municipalities in coastal areas and lakes)
- Elevating services to meet international standards for tourism (all cities and municipalities)
- **Export activities**
 - manufacturing of parts/components and materials and supplies directly/reasonably needed in the production of export products

Increase the attractiveness of CALABARZON for foreign or ESG investments. Environmental, social, and governance (ESG) investing refers to a set of standards for a company's behavior used by socially conscious investors to screen potential investments^[1]. ESG investors seek to ensure that the companies they fund are responsible stewards of the environment, good corporate citizens, and are led by accountable managers.

There is an increasing momentum toward carbon neutrality/net zero emissions, as seen in many countries such as the USA, China, Japan, and the European Union. These countries are starting to reconsider their entire global supply-chain network, including international transportation, to reduce greenhouse gas emissions.

A national ESG Investments Task Force will be established to spearhead the work in building transparent and credible Standards Certification schemes for environmental, social, governance investment opportunities dynamic institutional by stimulating entrepreneurship. This will comprise the public sector (e.g., NEDA, DENR, DENR-EMB, DTI-BOI, DOF, DSWD, DILG, DOE, Climate Change Commission, and Philippine Space Agency), private sector, academe, and other social partners. This task force will also be invited to present its mandate and activities during the meetings of the CALABARZON RDC's sectoral committees and DTI's PEDP roadshow in the region.

Legislative Agenda

Table 11.3 presents the region's priority legislative agenda to promote trade and investments.

Table 11.3 Legislative Agenda for Promotion of Trade and Investments

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY						
CALABARZON export sectors restored, sustained and strengthened								
Urgent ratification of the Regional Comprehensive Economic Partnership (RCEP) Agreement	Joining the RCEP will enhance the country and CALABARZON's market access and investments.	DTI, NEDA						
National Quality Infrastructure Act	Establishing a National Quality Infrastructure will help boost the region's best practices and competitiveness. This will also facilitate secure market access and utilization of FTAs.	DTI, DTI-Export Marketing Bureau, DTI- Export Development Council, BOI, PEZA						
Amend the Export and Industry Development Act	Amendments to the law will provide targeted and strategic policy, program, and project support, including non-fiscal incentives, for developing local industries toward export competitiveness.	DTI, DTI-Export Marketing Bureau, DTI- Export Development Council, BOI, PEZA						
Total investments increased and targeted to boost trade, skills upgrading and sustainability								
Review of RA 9178 - "Barangay Micro Business Enterprises (BMBE's) Act of 2002."	There is a need to review the law's provisions, especially the incentives on businesses, including incentives granted by LGUs, to help determine how to functionalize and operationalize the local investment and incentives board of the LGUs.	Group, DTI Region IV-A,						

Results Matrix

Table 11.4 presents the indicators and targets within the plan period to promote trade and investments.

Table 11.4 Results Matrix: Promote Trade and Investments

	BASELINE	TARGETS							RESPONSIBLE AGENCY/	
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	EOP	INTER-AGENCY BODY	
"Exports sales increased (USD M) by PEZA"	31,713.42 (2021)		Increasing						Bangko Sentral ng Pilipinas (BSP), PEZA, PSA	
Total FDI approved (USD M)	25,025.19 (2021)				Increasing				PEZA, BOI, PSA	

Endnote:

 $^{[1] \} Environmental Social Governance. \ Investopedia. (2022). \ Retrieved from: \ https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-number of the properties of th$ criteria.asp on December 28, 2022

PART IV

Enabling Environment

12

Promote Financial Inclusion and Improve Public Financial Management

CHAPTER 12

Promote Financial Inclusion and Improve Public Financial Management

This chapter focuses on a) promoting financial inclusion through expanded access to financial products and services; and, b) improving public financial management through efficient revenue collection, broader revenue sources, and equitable and simpler taxes. Overall, the chapter contributes to Agenda 3 of the administration's Eight-Point Socioeconomic Agenda on ensuring sound macroeconomic fundamentals.

Assessment and Challenges

Financial Inclusion

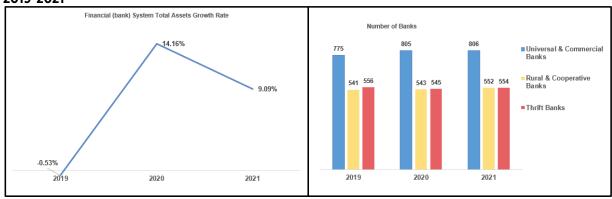
Financial institutions played an important role in maintaining economic growth in the region, particularly during the onset of the COVID-19 pandemic. Banks and other financial institutions mobilized savings and investments, thereby maintaining the financial system's liquidity. They were able to help individuals and businesses to sustain operations and cope with the immediate economic effects of the pandemic by ensuring the continuous availability of cash and other financing services.

Moreover, several legislations were implemented, guiding the financial institutions in fulfilling their vital role in the region's economic recovery. The Government Financial Institutions Unified Initiatives to Distressed Enterprises for Economic Recovery strengthened the capacities of government-owned and controlled financial institutions in providing access to credit and financial assistance to businesses affected by the pandemic, especially the MSMEs. The

Financial Institutions Strategic Transfer Act allowed financial institutions to free up non-performing assets that can be sources of capital and funds for other businesses facing liquidity issues.

The financial system's total assets from banks, composed of the net loan portfolio, cash and dues, net financial assets, and others, in CALABARZON, grew on average by 7.9 percent in 2019-2021. Similarly, the number of universal, commercial, rural, and cooperative banks increased since 2019, except for thrift banks. Improving economic activity may have contributed to the region's growth in total assets and the number of banking offices. Figure 12.1 shows the financial system's total assets growth rate and the number of banks from 2019 to 2021.

Figure 12.1 Financial (bank) system total assets growth rate and number of banks by type, CALABARZON, 2019-2021

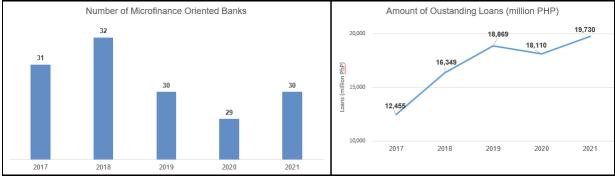


Source: Bangko Sentral ng Pilipinas

Meanwhile, the number of microfinance-oriented banks was steady in the last three years, bringing the annual value of microfinance loans in 2021 higher by 4.56 percent and 0.30 percent from 2019 and 2020, respectively. This may reflect the significant role of financial

institutions in the recovery from the impacts of the COVID-19 pandemic in 2020. Figure 12.2 shows the number of microfinance-oriented banks and the amount of outstanding loans from microfinance services from 2019 to 2021.

Figure 12.2 Number of microfinance-oriented banks and amount of outstanding loans, CALABARZON, 2017-2021



Source: Bangko Sentral ng Pilipinas

In terms of cooperatives' performance, a significant decline in the number of registered cooperatives was observed in 2020 due to the adjustments made by the CDA where the application process shifted to online applications due to mobility restrictions caused by the pandemic. The new system was only operational during the last quarter of 2020. Total registered cooperatives in the region

increased by 27 percent from 2020, which was also 26 percent higher than the target for 2021, as shown in Figure 12.3. Moreover, credit cooperatives increased from 21 in 2020 to 30 in 2021, 58 percent higher than the target number.

187 139 125 Registered cooperatives 107 Credit cooperatives Target Registered cooperatives 43 Target Credit cooperatives 35 32 30 21 2017 2018 2019 2020 2021

Figure 12.3 Total registered and total credit cooperatives, CALABARZON, 2017-2021

Source: Bangko Sentral ng Pilipinas

Public Financial Management

The ratio of locally sourced revenue of LGUs to total current operating income declined from 2020 due to the impact of the pandemic. The release of the Bayanihan Grant by the National Government augmented the current operating income of the LGUs, which also contributed to the decreased ratio. Nevertheless, the ratio for the past three years exceeded the target, as shown in figure 12.4.

Total revenue collections for 2021 decreased by 13 percent from the collections in 2020. A significant decline in collections was observed from business tax and income from the operations of economic enterprises. Despite the decrease, the region was still able to exceed the target collection from real property tax and fees. The decrease can be attributed to the retrenchments and closures of businesses and establishments, the decline in tourism activities, and the reduction in corporate income tax and other taxes through the enactment of the CREATE Act in 2021.

17,691 42.72% 16.387 39.28% **2021** 37.66% 2021 Target 36.20% 35.70% 35.20% 12,704 Actual – Target 5 077 1,825 Fees and Charges Business Tax Economic Enterprises

Figure 12.4 Ratio of locally sourced LGU revenue to total current operating income and revenue collection, CALABARZON, 2019-2021

Source:Bureau of Local Government Finance Region IV-A

Challenges and Opportunities

Despite the overall positive performance of financial institutions and service delivery, issues, challenges, and opportunities present in the region may potentially impact the attainment of financial inclusion and sound public financial management. The identified challenges and opportunities are as follows:

Limited financial literacy among Filipino adults. Financial literacy enables people to manage their finances better and optimize the benefits of financial services. It pertains not only to awareness of available financial providers and services but also to how this knowledge is used to better manage finances and plan for retirement. Thus, limited financial literacy among adults will likely have a negative impact on achieving higher financial inclusion in the region.

Limited access of low-income households and MSMEs to formal financial institutions and difficulty complying with documentary requirements to support account ownership. Financial institutions see low-income households and MSMEs as a) high risk as

they do not have the capacity to sustain higher amounts of investments, and b) high cost as they tend to incur the same amount of cost in transactions but with a very little amount of benefit from smaller investments. Moreover, there is difficulty in complying with documentary requirements as formal financial institutions tend to require more proof of identity (for personal accounts) and proof of income (for businesses). This makes them more inaccessible to low-income households and small businesses.

Availability of technology. The proliferation of digital service providers with the appropriate and sufficient digital infrastructure will strongly impact the efficiency and effectiveness of delivering financial services, particularly with the experience during the pandemic, where mobility was restricted.

Proliferation of businesses done through digital transactions. Similarly, the COVID-19 pandemic opened doors for digital transactions, especially for startups and small businesses. However, capturing the potential

government revenue from tax collections from these businesses becomes a challenge as they are not regulated and are not required to submit documentary requirements to practice and continue their business.

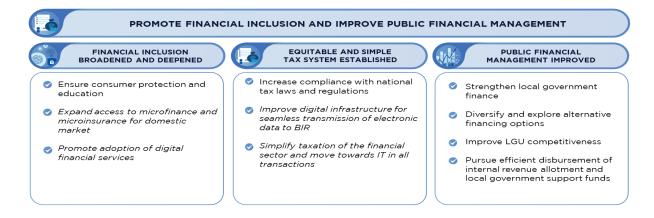
Increased LGU budget and utilization. Increasing the national tax allocation and local revenues, as well as improving the budget utilization rate of the LGUs, call for better resource mobilization and financial

management to ensure that necessary products and services are delivered to the intended beneficiaries. The absorptive capacity of the LGUs in utilizing their available funds for efficient delivery of services and addressing poverty incidence is crucial. Thus, both the increase in budget and its wise utilization are necessary considerations in sustaining public financial management.

Strategy Framework

The chapter aims to promote financial inclusion and improve public financial management. Three outcomes are expected once these goals are achieved: a) financial inclusion broadened and deepened; b) equitable and simple tax system established; and c) public financial management improved. The framework also includes strategies.

Figure 12.5 Strategy Framework to Promote Financial Inclusion and Improve Public Financial Management



Strategies

Outcome 1: Broadened and deepened financial inclusion

Ensure consumer protection and education

Increase awareness of available financial products and services. To address the challenge of limited financial literacy, awareness campaigns on available financial products and services may be initiated. Key messages may include information to identify fraudulent acts, practices, and scams. Implementing consumer safety and protection measures such as integrating cyber-security measures and the presence of reliable, real-time, and 24/7 client recourse, will also be pursued.

The region will be guided by the National Strategy for Financial Inclusion (NSFI) 2022-2028, which was launched by the inter-agency Financial Inclusion Steering Committee. The strategy entails strengthening financial education and consumer protection. The following are the desired outcomes and key performance indicators of the NSFI: a) increasing financial literacy among adults at an acceptable level and b) improving the average turnaround time of financial institutions on the resolution of complaints. Financial regulators such as the BSP, Securities and Exchange Commission (SEC), Insurance Commission (IC), and CDA, will also be responsible for safeguarding consumer protection and safety in line with RA 11765 or the Financial Products and Services Consumer Protection Act.

Private and public financial institutions will collaborate with BSP to develop alternative platforms for financial literacy programs to ensure greater access to financial education. Meanwhile, the Bureau of Treasury (BTr) will continue to conduct roadshow presentations, promote Government Securities or Retail Treasury Bonds among participating partner banks. They will also provide online financial literacy education to the general public to encourage and instill in them the value of savings and investments.

Promote adoption of InsurTech. InsurTech refers to insurance products and services offered through technology, such as digital and online platforms. This protects consumers and allows expanded access to insurance protection and risk management against uncertain losses. Local insurance service providers will be encouraged to develop products and services that can be offered digitally and can utilize online platforms.

The IC issued the Guidelines on Adoption of a Regulatory Sandbox Framework for InsurTech Innovations in 2020, which aimed to promote the development of local InsurTech. The NSFI also identifies the promotion of InsurTech as among the priority initiatives for 2022-2028. In line with the regulatory and supervisory policies implemented by the IC, the region, through the LGUs, will support the development and adoption of InsurTech among local insurance businesses and microinsurance firms to ensure consumer protection.

Expand access to microfinance and microinsurance for domestic market

Support digital transformation of institutions microfinance (MFIs) and microinsurance service providers. MFIs and microinsurance service providers are important in assisting families and small businesses, particularly during the recovery period. To ensure that the demand for microfinance services is met, there is a need to encourage and support the digital transformation of private and public MFIs. Shifting to digital will reach more clients, improve the delivery of services, and lower operating costs. In addition, simplifying requirements and processes will enable easier access to financing services for the target beneficiaries, including the informal and vulnerable sectors.

The CDA Region IV-A facilitates the following to help increase the number of registered cooperatives in the region: a) strengthen implementation of RA 11535, which mandates all LGUs and provinces to designate cooperatives development officers; b) intensify series of online and face-to-face for a in each province and in the region; c) establish a strong partnership with other national government agencies; and d) undertake extensive media exposure utilizing social media and agency websites.

The mentioned activities will assist provinces, particularly Rizal, in addressing the issue of farmers' and fisherfolks' limited access to financial services.

Expand open finance use. The BSP issued Circular No. 1122, series of 2021 to adopt the Open Finance Framework among financial institutions, electronic money issuers, operators of payment systems, third-party providers

(TPPs), and other stakeholders. Open Finance refers to sharing customer information among financial institutions and TPPs to develop innovative financial products and services catering to the customer's needs. Only the customer-permissioned data are shared among parties to enable them to create customary financial innovations according to the shared data. The open finance framework will allow for better financial products and services at lower transaction costs, making financial services more accessible, efficient, and resilient.

The NSFI, led by BSP, SEC, IC, and CDA, will also guide the region in expanding open finance for mass market implementation. Private and public financial institutions, especially those adopting digital platforms, will be encouraged to participate in the open finance ecosystem. Moreover, LGUs will also play a vital role in implementing the open finance ecosystem in the region by developing and enhancing their electronic payment and collection systems.

Promote adoption of digital financial services

Promote inclusive digital finance. The adoption of digital financial services will be promoted in the region to utilize the availability of new technologies such as mobile applications, new and updated mobile phones and devices, and digital service providers. This will be achieved by adopting the PhilSys and fast-tracking the implementation of the SIM Registration Act, to facilitate access to the use of digital payments. Digitizing financial services and enabling a broader-based use of digital payments is easier and simpler. Moreover, identity becomes readily available and accessible through the PhilSys and the SIM registration.

The launch of BSP's Digital Transformation Roadmap 2020-2023 started the promotion of digitization of financial services in the country. The continuous adoption and implementation of the roadmap will be important in improving the delivery of digital financial services and ensuring greater financial inclusion. Included in the roadmap is the EGov Pay, which is a payment facility that can be used by individuals and businesses when paying government obligations such as taxes, permits, fees, etc. Local businesses and MSMEs will also be enjoined to offer digital payment schemes through the use of mobile virtual wallets such as GCash and Maya.

With the assistance of national agencies and the banking sector, the LGUs are moving forward in digitizing their financial operations by adopting electronic payment and collection systems to upscale the delivery of services to the taxpayers and to the community.

The Paleng-QR Ph program, jointly developed by the BSP and the DILG, will support the digital payments ecosystem in the country by promoting cashless payments in public markets and local transportation, particularly tricycles. The LGU will incentivize or mandate the use of QR Ph digital payment and assist in onboarding these target users to a transaction account by organizing an "account opening day" in

coordination with Financial Service Providers with QR Ph capabilities.

On the other hand, digitizing the financial service delivery will entail better cyber-security measures to ensure the safety of vital and confidential information. Thus, improved policies, infrastructures, and other mechanisms are needed to intensify the implementation of cyber-security measures, particularly during digital financial transactions.

Promote the implementation of industry sandbox for digital innovations. A regulatory sandbox is a controlled, time-bound, live testing environment of new technologies and innovations. The BSP issued Circular No. 1153, series of 2022, institutionalizing the Regulatory Sandbox Framework among bank and nonbank financial institutions. The policy will allow startups and innovators to experiment with new financial products and services in a controlled and time-bound environment. The implementation of the framework will be regulated by the Financial Sector Forum composed of BSP, SEC, IC, and the Philippine Deposit Insurance Commission (PDIC). It will be applied to all BSP-supervised financial institutions (BSPFI), third-party service providers of BSPFIs, other BSP-registered institutions, and new players that can offer new and emerging technologies.

Outcome 2: Established equitable and simple tax system

Increase compliance with national tax laws and regulations. Tax collection is among the sources of government revenues. There is a need to sustain tax compliance and capture potential revenues from the flourishing digital economy to support economic recovery, particularly with the shift of business models due to the pandemic.

Further, enhancing services and processes of the BIR on tax collections will encourage compliance with tax laws and regulations by small and startup businesses, particularly those on the digital platform.

The Digital Transformation (DX) Roadmap of the BIR includes projects involving innovations in the service processes to improve the implementation of tax laws and regulations, such as expanding the range of electronic payment channels and allowing taxes to be filed online. Among these DX projects are the Internal Revenue Integrated System, the Enhanced Internal Revenue Stamps Integrated System, the launching of Chatbot Revie, the Electronic Filing and Payment System, and the Electronic Fund Transfer Instruction System.

Improve digital infrastructure for seamless transmission of electronic data to BIR. To improve data transmission and maximize information exchange among government offices, the implementation of Executive Order No. 646, s. 2007 will be strengthened. The EO grants accessibility of taxpayer information between the BIR and LGUs for tax collection purposes, including a digital platform connecting the LGUs and BIR in the DX Roadmap.

The need for a reliable digital infrastructure that will facilitate the seamless transmission of electronic data to BIR and other government entities will be pursued to address the tedious process of preparing, filing, and paying taxes for individuals and businesses, which was also aggravated by the pandemic due to restrictions in mobility. In line with the BIR's DX Roadmap, the DOF's Technology Harmonization and Modernization Program aims to establish a more coherent and ordered information exchange among agencies overseen by the department. The BIR ICT Modernization Program is part of the said DOF program.

Simplify taxation of the financial sector and move towards IT in all transactions. Relatedly, simplifying the taxation regime will also address the issue of the tedious process of preparing, filing, and paying taxes. This will be done by streamlining and fully automating tax processes. Moreover, increasing the adoption of digital collections among regional offices and other instrumentalities will further contribute to attaining an equitable and simple tax system.

This strategy is supported by EO 170, s. 2022, which directs all government offices and enjoins all LGUs to adopt digital payments for disbursements and collections. The EO also mandates all covered government instrumentalities to offer a digital mode of collecting payments for taxes, fees, and other charges.

Outcome 3: Improved public financial management

Strengthen local government finance. Under the Local Government Reform Project (LGRP) of the DOF, the Bureau of Local Government Finance (BLGF) provides capacity-building assistance to LGUs on real property tax administration. This includes skills and knowledge development on tax mapping, compliant with the Local Government Code of 1991 and the Philippine Valuation Standards, to

ensure a consistent and equitable land valuing system in the LGUs.

Despite the possible increase in internal revenue allotment of the LGUs due to the Supreme Court ruling on the Mandanas-Garcia petition, there is still a need to increase locally sourced government funds to ensure more sustainable local development. This will be realized by: a)

improving local revenues; b) establishing more comprehensive policy frameworks for local economic enterprises (LEEs); c) ensuring timely updating of local revenue codes; d) building capacity on tax mapping operations; e) regular updating of schedule of fair market values and general revision of real property assessments; and f) timely updating of CLUPs.

The LEEs in LGUs are created to augment local revenues. However, many LEEs are resulting in losses. Hence, the DBM created the Manual for Setting Up and Operation of LEEs to guide LGUs on conceptualizing, operationalizing, and sustaining LEEs. The policy framework that will serve as the basis for the creation and operation of the LEE should be aligned with the quality service delivery goals of the LGU.

Low tax collections may also result from outdated local revenue codes and schedules of fair market values or real property. Per the Local Government Code, LGUs are allowed to adjust tax rates up to a maximum of 10 percent once every five years, while real property taxes are subjected to revaluation once every three years. Relatedly, updated CLUPs may also serve as a tool for the revaluation and revision of real property values as it serves as input to the schedule of fair market values for different classes of real properties in the locality.

The provinces of Rizal and Batangas identified revenue generation capacity as one of the development issues in their provinces, while Quezon Province identified reduced dependency on internal revenue allotment as one of its goals. Moreover, Laguna Province identified general revision of real property assessment as among its priority activities in the next five years.

Thus, strategies to strengthen local government finance will be prioritized in these provinces.

Diversify and explore alternative financing options. To address low revenue collections, LGUs will diversify and explore alternative financing sources by adopting LGU bond markets and Private-Public Partnerships. The BTr also provides technical assistance to LGUs to augment local government support funds, while the DILG assists LGUs by providing a list of fund source options for LGUs.

Improve LGU competitiveness. The LGUs will also enhance their competitiveness to attract investments. The region will participate in and monitor its ranking in the Cities and Municipalities Competitive Index, which ranks the LGUs based on their scores on the five pillars of competitiveness. Proper debt management among LGUs, reflecting the LGU's credit rating or creditworthiness, may also contribute to the region's level of competitiveness as investors and bank lenders tend to compare the credit standing of LGUs in making financial commitments with them.

The BLGF certifies the net debt service and borrowing capacity of LGUs and monitors LGU debts. Moreover, the BSP reviews the economic implications of LGU loans and issues monetary board resolutions. These are safety nets to ensure that LGU debts are within their capacity and lenders and investors are confident to provide financial support to them.

Pursue efficient disbursement of internal revenue allotment and local government support funds. With the anticipated increase in LGU budget from the increase in internal revenue, there is a need to ensure the efficient

disbursement of these funds by adopting digitized disbursement methods and increasing compliance of LGUs to submission of disbursement reports to the DBM.

EO 138, s. 2021 mandated the creation of the Regional Committee on Devolution (RComDev), a special committee under the RDC, which oversees and monitors the implementation of the EO, such as administrative and fiscal decentralization goals of the LGUs.

The RComDev, headed by DBM and DILG, will assist in the efficient utilization of funds

for devolved functions to LGUs in line with the Committee's functions, such as a) cascading policies and guidelines to regional government offices and LGUs; b) monitoring and assessing the implementation of the devolution transition plans of the regional government agencies and LGUs in the region; c) determining and addressing region-specific and local-level issues, concerns and challenges and elevating these for national action; and d) strengthening coordination between regional government agencies and LGUs to facilitate the smoother transition to full devolution.

Legislative Agenda

Table 12.1 presents the region's priority legislative agenda to promote financial inclusion and improve public financial management.

Table 12.1 Legislative Agenda to Promote Financial Inclusion and Improve Public Financial Management

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Financial Accounts Regulation Act	The act will strengthen consumer protection and impose higher penalties for financial cybercrimes.	BSP
Digital Payments Bill	The bill will foster safe, affordable, and efficient digital payments.	BSP
Internet Transaction Act	The act will ensure regulation of all business-to-business and business-to-consumer transactions over the internet.	DTI
Passive Income and Financial Intermediary Taxation Act	The act will ensure that passive income and financial intermediary taxes are fairer, more efficient, and more competitive.	DOF
E-Governance Act	The act will mandate all government agencies to establish an integrated, interconnected, inter-operable information and resource-sharing network.	DICT
Ease of Paying Taxes Act	The act will enhance tax transactions' portability, simplify VAT rules, ease registration requirements, and strengthen taxpayers' rights.	BIR
Budget Modernization Bill	The bill will institutionalize an efficient cash budgeting system and other key public financial management reforms.	DBM
Real Property Valuation and Assessment Reform Bill	The bill will professionalize real property valuation by adopting internationally accepted valuation standards.	DOF/BLGF

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
LGU Income Classification Bill	The bill will institutionalize the regular income reclassification of all provinces, cities, and municipalities to determine the LGU's financial capability and fiscal position.	

Results Matrix

Table 12.2 presents the indicators and targets within the plan period to promote financial inclusion and improve public financial management.

Table 12.2 Results Matrix: Promote Financial Inclusion and Improve Public Financial Management

	BASELINE		TARGETS						RESPONSIBLE
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
Proportion of adults (15 yo & older) with an account (at bank or other fin. institutions or with mobilemoney service provider)	53.9% (2021) for South Luzon			BSP					
Total tax revenues as a proportion of GRDP increased [%]	2.51% (2019)		Increasing						BIR, PSA
Percentage of LGU budgets funded by local sources increased [%]	"39.74% (2020)"		Increasing						DBM, DOF
Ratio of local source of LGU income to total current operating income maintained [%]	"36.68% (2021)"	40%	40%	40%	40%	40%	40%	40%	BLGF
Local revenue growth rate maintained (%)	"5% (2021)"	5%	5%	5%	5%	5%	5%	5%	
Proxy: Year-on-year growth in social and economic services expenditures (of LGUs) to total current operating expenditures maintained (%)	"8% [2021]"	8%	8%	8%	8%	8%	8%	8%	



CHAPTER 13

Expand and Upgrade Infrastructure

Expanding and upgrading transport and connectivity infrastructures will be pursued to support the national goal of economic transformation for a prosperous, inclusive, and resilient society. The CALABARZON region will implement infrastructure policies, programs, and projects to enhance asset management, achieve seamless and inclusive connectivity, attain water security and ecological integrity, provide affordable and sustainable energy, and support social development.

Assessment and Challenges

Assessment

Infrastructure facilities in CALABARZON were enhanced and expanded by establishing new road networks, improving port facilities, upgrading digital connectivity, increasing water supply, expanding electrification coverage, and constructing sanitary landfills. Some subsectors still need to catch up as schools are still inadequate in supporting the growing population, and health facilities are greatly affected and overloaded by health emergencies.

Connectivity

CALABARZON road network expanded and alternate routes constructed. CALABARZON achieved the 2022 target for the length of national roads with 2,543.83 kilometers from 2,517.30 kilometers in 2016. The achievement of the target can be attributed to the continuous implementation and completion of bypass roads and the conversion of local into national roads.

As of 2022, there are 30 ongoing bypass and diversion road projects. These are expected to decongest traffic in the region's urban areas.

It can be noted that the Sariaya Bypass Road Project was completed in 2022, while the Tiaong Bypass Road, Candelaria Bypass Road, and Quezon Ecotourism Road were fully converted into national roads.

Road conditions declined. Despite achieving the target on the length of national roads, the percentage of roads in good and fair condition was only 41.45 percent as of the latest available data (2021). This is way below the target of 75.25 percent. For bridges, 301 are in good condition, and 337 are in fair condition. The unsatisfactory road and bridge condition can be attributed to the low allocation of budgets for road and bridge maintenance.

Expressway development pursued; interoperability implemented. development and upgrading of regional toll roads were continued. New toll roads were constructed namely, South Luzon Expressway Toll Road 4 and Cavite-Laguna Expressway. The Electronic Toll Collection Interoperability Project, which provides seamless travel in all the interconnected toll road systems in Luzon, was implemented. With this development, all toll roads in Luzon are interoperable using only one account, i.e., Easytrip and AutoSweep Radio Frequency Identification (RFID) accounts. Phase I of the Interoperability Project was implemented in December 2017.

Phase II of the Interoperability Project was communicated to the motoring public in December 2022 and was scheduled for implementation last January 2023. Phase III of the Project (One RFID Sticker and One Account) is currently being discussed by the Technical Working Group on Interoperability Project for possible implementation in December 2023.

CALABARZON railway project completed and existing lines reopened. The major accomplishment in the railway subsector was the completion of the Light Rail Transit (LRT) 2 East Extension up to Masinag, Antipolo, Rizal in 2022. On the other hand, the LRT 1 Cavite Extension Project is ongoing and is expected to reduce travel time from Cavite Province to Metro Manila and vice versa by 24 minutes. Other major ongoing railway projects include the South Long Haul (SLH) and North-South Commuter Railway (NSCR) Projects. The SLH Project involves the construction of a 639-kilometer standard gauge railway line from Manila to the Bicol region, which will pass through CALABARZON. As of date, the Philippine National Railways also continued the operation of the Tutuban-Calamba Line. It also reopened the San Pablo-Lucena Line, providing an alternate mode of transport between Laguna and Quezon Provinces.

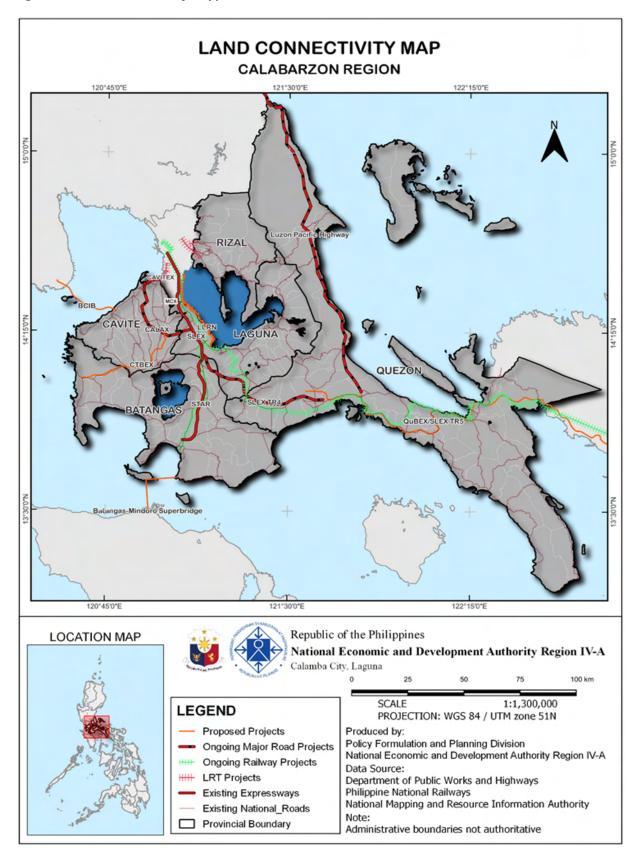
Figure 13.1 highlights CALABARZON's thrust to establish inter-regional connectivity with regions III, MIMAROPA, V, and NCR. Upon completion of the ongoing major land transport

projects, the land connectivity inside and outside the region is expected to spur further economic development through efficient trade networks for goods and people. This development is also expected to spill over to the connected regions of Luzon.

Port facilities improved and expanded to ensure a seamless Roll-on, Roll-off (RoRo) network. The expansion of Batangas Port includes upgrading the passenger terminal and berthing facilities. The new passenger terminal has modern amenities such as an electronic ticketing system. The improved port facility can accommodate an estimated 4,000 passengers per day.

The upgraded and rehabilitated Port of Talaga in San Juan, Batangas was also inaugurated. The completed rehabilitation works at the port are the construction of a backup area and Port Operations Building and the installation of a lighting system. The port was also being eyed to offer RoRo services. The improvement of the said port complements the Batangas Port. The DOTr is also implementing the Social Ports Development Program, which covers the rehabilitation and improvement of Tingloy Port in Batangas, Punta Port in Unisan, Quezon, and Quezon Port.

Figure 13.1. Land Connectivity Map, CALABARZON



Utilization of ports is still to be optimized.

The containerized cargoes exceeded the targets by 48 percent in 2021, a two percent growth from the previous year. The increase in containerized cargoes resulted from increased demand for import and export goods shipped through containers. This further encourages the utilization of the Batangas Port as an alternative to the Port of Manila. Meanwhile, the noncontainerized cargo throughput decreased by 4.65 percent due to a reduction in the cargo tonnage handled.

The number of passengers in Batangas and Lucena Port decreased by 21 percent as of date. The decline in passenger traffic in the two ports was mainly attributed to the travel ban and restrictions imposed due to the COVID-19 pandemic.

On the contrary, there was an increase in the number of vessels that passed through these ports as of the latest available data despite not meeting its target. This was due to the increased scheduled trips directly affecting the RoRo vessel traffic. Nonetheless, the ship calls of non-RoRo and cargo vessels were not significantly affected due to the need to transport goods/commodities, particularly foods, drugs, and other essentials.

The region also hosts the Laguna Gateway Inland Container Terminal and the Cavite Gateway Terminal. The Laguna Gateway Inland Container Terminal, with Inland Clearance Depot and Empty Container Depot, provides end-to-end trade solutions, covering processes from transport to warehousing, including Customs clearing. The Laguna Container Yards have 2,500, 20-foot equivalent units (TEUs) static capacity for the inland depot and 8,000 TEUs

static capacity for the empty container depot. These are strategically located near the industrial zones. Similarly, the Cavite Gateway Terminal in Tanza, Cavite was launched in 2018 to serve as an alternate means to transport containers from the Port of Manila to CALABARZON. The terminal can handle 115,000 TEUs annually.

Alternate airports are being developed. Phase I of the Sangley Development Project Airport in Cavite was completed in October 2020. The airport serves as an alternate gateway for general aviation operations of Ninoy Aquino International Airport (NAIA). Under Phase II, there is an ongoing construction of a hangar and site development of the airside area for general aviation services. Phase II also intends to expand the airport's airstrip to comply with aviation safety standards. Meanwhile, the development of the Sangley International Airport is ongoing. This will decongest NAIA and open future investments in CALABARZON, particularly in the business districts and tourism clusters.

Continued improvement broadband in internet speed and provision of digital services. The demand for digital information and technology has been increasing worldwide. In the Philippines, the average internet speed continues to surge upward, with fixed broadband download speed at 81.42 megabits per second (Mbps) and upload speed at 78.82 Mbps as of the latest data. Likewise, the mobile download speed was recorded at 24.04 Mbps and the upload speed at 5.99 Mbps^[1]. CALABARZON region recorded an average broadband download speed of 22.20 Mbps as of November 2022 per Ookla Speed Test Report, an improvement from 11.7 Mbps in 2019. Broadband is a high-speed internet that enables the public to access online information and transactions.

To better guide the government on ICT development, the DICT, in partnership with the Philippine Statistical Research Institute and PSA, conducted a National ICT Household Survey (NIHS) and Pipol Konek Feedback Analysis in 2019. The NIHS aims to gather baseline data on household access and use of ICT services and equipment. The baseline data collected in the region showed low fixed broadband subscription per 100 inhabitants at 5:47. On the other hand, the proportion of the population with exposure to the internet in social interaction was at 345:1,000, while the proportion of the population with exposure to the internet in research work or study was at 63:1,000. The other survey aims to gather feedback from users of Pipol Konek or Free Wifi Access in Public Places. The said survey has no data available yet. However, the number of powered-up sites with free internet access has increased from 59 in 2018 to 1,368 as of the latest available data in the region. The DICT Region IV-A also established 527 Tech4ED Centers as of December 2022. The Center is a shared facility that provides free access to ICT services in unserved and underserved areas.

Water Resources

supply coverage increased. Safe water The percentage of households with access to basic safe water supply increased from 66 percent in 2016 to 80 percent in 2021. Households served with a Level Three water supply system [2] decreased from 89 percent in 2017 to 66 percent in 2021. As of the latest available data (2021), a total of 3.10 million households in CALABARZON have access to Level 1^[3] (12 percent), Level 2 [4] (6 percent), and Level 3 (82 percent) water supply systems.

improved. basic sanitation Access to Household access to basic sanitation^[5] has improved from 65 percent in 2016 to 77 percent in 2021 (the latest data). As of 2021, a total of 2.97 million households in the region have sanitation facilities connected to either a septic tank (94 percent), community sewer/sewerage system (two percent), or ventilated improved pit latrine (three percent).

Ratio of actual irrigated area to the total potential irrigable area decreased. The ratio of actual irrigated areas to potentially irrigable areas increased from 57.36 in 2016 to 77.88 in 2019. However, the ratio declined to 71.64 percent in 2020 and 71.08 in 2021, 1.79 points below its 72.87 percent target. The decline in performance may be attributed to high production, operation, and maintenance costs, which prevented farmers from cultivating their farmlands. The National Irrigation Administration Region IV-A recommended crop diversification to increase return on investment with minimal water requirement.

Water hazards-induced losses incurred. Among the recent major weather disturbances that affected the region were the El Nino phenomenon in 2019, which led to losses in agricultural production, and the three tropical cyclones - Quinta, Rolly, and Ulysses in 2020, which affected a total of 25,801 families, 133,161 families, and 150,027 families, respectively^[6].

Power Generation and Electrification

Household electrification increased. In 2021, 99.37 percent of the households in the region already had access to electricity, a 0.36 percent increase from the 99.01 percent recorded in 2019. Quezon remains the only province in the region with unserved households (Table 13.1).

With the enactment of Republic Act (RA) No. 11646 or the "Microgrid Systems Act of 2022", the Local Total Electrification Roadmap (LTER) to be formulated by the electric cooperatives

(ECs) will pave the way for targeting households that are still to be provided with electricity access.

Table 13.1 Household Electrification by province, CALABARZON 2019

Province	Potential Households (HHs; PSA)	Served HHs	Actual unserved HHs per distribution utilities per Province	HH Electrification Rate (%)	
Cavite	887,283	1,189,364	0	100.00%	
Laguna	765,513	913,067	0	100.00%	
Batangas	613,825	760,093	0	100.00%	
Rizal	652,605	825,090	0	100.00%	
Quezon	425,896	450,229	21,330	94.99%	

Source: National Electrification Administration.

From 2019 onwards, computation of %HH Electrification adopted the formula (Total Potential HHs - Actual Unserved HHs, per DU per Province)/(Total Potential HHs)

Power capacity increased. Currently, the region is the largest source of power generation in the Luzon Grid, accounting for almost half of the grid's dependable capacity. As shown in Table 13.2, in 2019, the dependable capacity of the region was recorded at 8,037.8 MW, which

further increased to 8,082.2 MW in 2021. For the region's off-grid power plants (mostly dieselbased and situated in Quezon and Batangas), the dependable capacity grew by around 27 percent from 5.5 MW in 2019 to approximately 7 MW in 2021 (Table 13.3).

Table 13.2 Existing Grid-connected Power Plants in CALABARZON²

Year	Installed Capacity (MW)	Dependable Capacity (MW)		
2019	9,024.5	8,037.8		
2020	9,023.8	7,982.4		
2021	9,327.4	8,082.2		

Source: DOE

Table 13.3 Existing Off-Grid Power Plants in CALABARZON

Year	Installed Capacity (MW)	Dependable Capacity (MW)			
2019	6.42	5.49			
2020	7.72	5.56			
2021	8.32	6.96			

Source: DOE

Table 13.4 Awarded Renewable Energy Service Contracts in CALABARZON, 2021

Technology	No. of Service Contracts	Potential Capacity	Dependable Capacity (MW)	
Biomass	5	2.700	40.065	
Geothermal	7	144.600	490.530	
Hydropower	20	2883.000	8.550	
Solar	59	8014.780	196.700	
Wind	26	3793.000	54.000	
Total	117	14,838.08	789.845	

Source: DOE

Utilization of ER 1-94 Fund for COVID-19 **response.** To mitigate the impacts of the COVID-19 pandemic, the Department of Energy (DOE) issued Department Circular No. 2020-04-008, "Rationalizing the Utilization of ER 1-94 Funds by Host Local Government Units in Response to COVID-19 Public Health Emergency". The Circular was issued to provide the rules and guidelines for the effective administration of the ER 1-94 fund to help eliminate the transmission and mitigate the effects of the pandemic to communities in all host LGUs. By virtue of RDC Resolution No. IV-A-39a-2020 (Requesting the Department of Energy to Allow the Use of the Regional Share of the Energy Regulation 1-94 Fund to Fight COVID-19 in CALABARZON Region) and

RDC Resolution No. IV-A-39a-2020 (Approving the Criteria for the Allocation of Regional Share of the Energy Regulation 1-94 Fund and Utilization by the Provincial Governments for Projects in Response to the COVID-19 Pandemic), the ER 1-94 Fund Regional Share was allocated to the region's provinces. As of March 2022, the downloaded fund from the ER 1-94 regional share already amounted to PHP187 million, utilized for COVID-19-related responses and projects within the region.

Creation of Sub-Committee on Energy (SCE).

The creation of the SCE was approved during the 4th Quarter 2021 CALABARZON RDC Full Council Meeting to primarily monitor the implementation of the DILG-DOE Joint Memorandum Circular (JMC) No. 20202021 or the LGU Energy Code, as well as to address power-related concerns in the region. Important energy issues in the region, such as the electrification of certain areas in Quezon province, relocation of obstructing electric poles, and other energy matters, were discussed and resolved during the SCE meetings.

Social Infrastructure

Education facilities still inadequate to meet the demand. In School Year 2021-2022, classroomto-pupil ratios in elementary and secondary levels were below target due to the effects of the COVID-19 pandemic as follows: a) abrupt increase in enrollment at 8.16 percent in public schools with students transferring from private schools; and b) students returning to schools after fewer restrictions from COVID-19. Moreover, damages to school buildings were evident during the Taal Volcano eruption in 2020, coupled with the damages brought by strong typhoons, i.e., Quinta, Rolly, and Ulysses (QRU) in the same year. The pandemic also prompted the public schools to shift from pure classroom-type to a blended learning system starting the school year 2021-2022. Regarding classroom inventory, no National School Building Inventory (NSBI) was conducted in 2020-2021 due to the pandemic. The NSBI was set to resume in 2022.

Health facilities compromised by the onset of COVID-19 pandemic. Due to the pandemic, health facilities in the region were utilized for COVID-19 patients. Further, with the imposition of strict community quarantine measures to control the curb, no barangay health stations nor rural health units were constructed in 2020. The DOH only approved the medical equipment supply for the Health Facilities Enhancement Program as a supportive

measure to control the pandemic. The Taal Volcano eruption and typhoons QRP in 2020 also damaged various health facilities. These include provincial/municipal/city hospitals, rural health centers, and barangay health centers. The repairs and rehabilitation of these health facilities are ongoing, including repairing damaged equipment, replacing furniture, and replenishing essential medicine and medical supplies.

Temporary evacuation centers still prevalent in the region. The traditional practice where schools, churches, barangay halls, covered courts/gyms, and other multi-purpose buildings are converted to community evacuation centers/ facilities is still prevalent in the region. These centers cater to families displaced by natural or human-made calamities. With this practice, regular education and social activities conducted in such public structures were affected and, in some instances, hampered when there were natural or human-made calamities/emergencies.

Number of sanitary landfills (SLFs) increased.

There were 17 SLFs constructed in the region in 2018, increasing the number to 36 SLFs in 2020. Efforts have been made to increase the number of SLFs through IEC campaigns for the LGUs on proper solid waste disposal. LGUs put up their disposal facilities instead of resorting to clustering since most of the private SLFs have limited capacities. The strict implementation of Section 37 of the Ecological Solid Waste Management Act of 2000, which prohibits the operation of Open Dumpsites and Controlled Dump Facilities, also contributed to the improved performance.

Challenges

Despite its accomplishments, CALABARZON's infrastructure development still faces challenges. The region and the country generally have a fragmented transport system that lacks intermodal connectivity. Fragmentation can also be observed in managing water resources as no single agency manages the country's water resources. The rapidly-growing water demand and low water resource potential threaten the region's water supply. Limited ICT infrastructures in the region also greatly limit digital connectivity, especially with the trend of shifting services through internet connectivity. School and health facilities are still inadequate, hampering the delivery of social services. Further, the high cost of fuel and energy remains a challenge due to global conflicts and increasing demand.

Connectivity

Fragmented and disjointed planning and transportation system. CALABARZON's transportation and planning systems are fragmented, resulting in accessibility problems and a disjointed transport system. This further leads to disconnected modes of transportation and no clear direction in the transportation network planning.

Road-Right-of-Way Acquisition (RROWA) delays project implementation. The DPWH Region IV-A reported that the most common cause of project implementation delay was the difficulty in RROWA due to the centralized nature of acquisition and unavailability of funds. This was observed in various road projects. Some notable projects that experienced such issues are the Bacoor Diversion Road, Tagaytay Bypass Road, and East-West Road.

Long commute times and traffic congestion.

Time spent on commuting and traffic congestion in urban centers continued to persist in the region. According to the Japan International Cooperation Agency study in 2014, traffic congestion in Metro Manila is estimated to cost the country PHP2.4 billion per day. Similarly, this situation is now being observed in some urban centers of the region.

Absence of inter-modality of transportation.

While there are ongoing infrastructure projects in the region, these must be coordinated in terms of alignment, location, and use. The inefficiency in transportation in the region may be associated with the absence of integrated modes of transportation and in the movement being reliant solely on road-based transportation. Some ports and airports in the region still need to be utilized and connected by access roads.

Congested traffic corridors linked to the ports and airports still hampered the movement of goods and services from gateways and production areas. These roads to ports and airports are often congested and deteriorate faster due to heavy truck loads. Moreover, lack of coordination among government entities may result in fragmented regulations in truck ban policies and pass-through requirements.

Limited support facilities and ancillary services. Support facilities such as terminals and ancillary services are limited in the region. There is still a need to improve the airport and port facilities such as terminals and access roads.

Similarly, the ports still need to consider expanding their ancillary services to cater further to the logistical demands in the region. These ancillary services also include providing dry ports and logistical hubs and improving berthing facilities.

Non-utilization of existing international port.

The potential of Batangas Port as an international container port has not been fully maximized yet. There is a need for the Philippine Ports Authority and port operators to conduct an intensive marketing campaign and provide affordable rates to attract more shipping companies to use the existing and underutilized port facilities.

Absence of air transportation for commercial use. The region's potential in terms of air transport is yet to be considered. While the Sangley Airport Development Project (Phase I) is already complete, this only caters to general aviation. With the region's logistical demand, the air transport services for passenger and commercial use need to be explored.

Slow shift to intelligent transport systems. While there is continuous improvement in the physical facilities, the ports are yet to shift to intelligent transport systems to enable efficient ticketing, booking, and managing passengers and cargo. This will also enable passengers to monitor trips and schedules easily.

Limited ICT infrastructures, access to internet and slow broadband speed. Despite the notable progress in the overall internet performance, the country and the region still face affordability, availability, and internet speed issues. The high cost of fixed broadband internet services and equipment may have contributed to limited access to the internet.

The availability of internet services through the Very Small Aperture Terminal (VSAT) in some GIDAs was discontinued with the end of contract of service providers, as reported by the DICT Region IV-A. The VSAT is a satellite communication system that transmits or receives data, voice or video signals from communication networks. Although internet speed has improved, the region and the country must catch up with its ASEAN neighbors such as Singapore, Thailand, Malaysia, and Vietnam. The implementation of the National Broadband Program – Government Network (GovNet) was also not yet established in most parts of the region.

Power Generation and Electrification

One hundred percent electrification still needs to be attained. The government's electrification efforts including energy infrastructure and facilities (i.e., power lines), were hampered by the COVID-19 pandemic and various natural disasters (i.e., typhoons) affecting the country. Power restoration, including installing electrical infrastructures, took time due to community quarantine, especially in remote areas.

High cost of energy (fuel and electricity). As a net importer of energy, the Philippines is highly vulnerable to fluctuations in fuel costs on the global market. Domestic prices are impacted by significant occurrences that disrupt the value chain of fuels, such as the Russia and Ukraine conflict and global inflation, resulting in higher electricity and fuel prices. Hence, the country's increasing energy demand requires more reliable sources.

Huge investment requirements for renewable energy (RE). Big-ticket RE Projects or emerging RE technologies require huge financing requirements and management expertise to address the limited RE infrastructures.

Impending depletion of Malampaya gas resources. The country's sole source of indigenous natural gas is expected to be depleted by 2027. Currently, Malampaya supplies the requirements of five existing natural gas power plants in the region.

Threats to energy resiliency (i.e., natural disasters). Severe typhoons cause damage to energy infrastructures and facilities (e.g., power plants, transmission/distribution lines, etc.), leading to extended periods of power shutdown. Climate change also affects the availability and output of RE resources. During drought or El Niño season, electricity generation of hydropower plants is significantly reduced. Moreover, intermittent power disruptions and inefficient energy utilization must also be addressed.

Delays in the permitting and licensing processes for energy projects. The tedious process of securing local and national permits various agencies and institutions causes significant delays in the construction, commissioning, and commercial operation of power generation and transmission projects.

Water Resources

Growing Water Demand vis-à-vis Low Water Resource Potential. A rapidly growing population and a thriving economy drive the region's water demand. In 2020, CALABARZON accounted for 14.85 percent of the national population, the largest among the regions. It also gained the largest increase in size since 2015 and exhibited the second-fastest growth rate of 2.48, next to the Bangsamoro Autonomous Region in Muslim Mindanao at 3.26 percent. The region's population is projected to reach 16.7 million by

2025, or 2.6 million higher than its population in 2015.

The industry sector, which historically accounts for roughly half of the region's GRDP^[7], has the largest share of 37.0 percent in the region's consumptive water use^[8], followed by domestic/ municipal at 30.8 percent and irrigation at 24.8 percent based on 2017 data.

The region ranks the second-lowest among all administrative regions in terms of water resources potential based on an estimation of groundwater and surface water at 80 percent dependability^[9], as cited in the Philippine Water Supply and Sanitation Master Plan (PWSSMP). The PWSSMP was prepared and launched by the NEDA in 2021 as the national action plan for universal access to safe, sufficient, affordable, and sustainable water supply, hygiene, and sanitation by 2030. The Plan's Databook and Roadmap for Region IV-A reported the per capita water availability in CALABARZON at 214 m3/year in 2015, which indicates absolute water scarcity in the region based on a threshold of 500 m3/person.

In March 2019, numerous Metro Manila, Cavite, and Rizal areas reportedly experienced inadequate potable water supply. This can be attributed to limited sources of water coupled with the growing demand for potable water. Meanwhile, 18 waterless municipalities, or those with less than 50 percent service coverage, were reported in the region in 2017, as cited in the PWSSMP. Limited access to safe water increases the exposure of the affected population to various waterborne diseases.

Provision of irrigation services remains underdeveloped. Construction and rehabilitation of irrigation projects and achievement of targets on the ratio of actual irrigated area to the total potential irrigable area remain lagging in the region. This may be attributed to inadequate service provision in the sector.

Water hazards and water supply variability due to climate change and extreme weather events. Climate change and extreme weather events result in social and economic welfare losses. According to the CALABARZON Flood Risk Assessment Study (CFRAS), the region has a wide coverage of relatively low-lying terrains and gentle slopes, which indicates a physical predisposition for flooding. Based on exposure to flood hazards (i.e., rainfall events and vulnerability to flooding) and contribution to the overall inundation scene, the CFRAS identified the Malaking Ilog River Basin in Quezon Province as the top priority river basin in the region. Other priority rivers identified in the study are as follows: a) Pansipit River; b) Calumpang River; c) Mahabang Sapa Creek; d) San Cristobal River; e) Maragondon River; f) Canas River; g) Marikina River; h) Palico River; i) San Juan River; j) Pagsanjan River; k) Agos River; l) Ylang-Ylang River; m) Santa Cruz River; n) Iyam and Dumacaa River; n) Vinas River; m) Famy River; n) Macalelon River; o) Balsahan River; and p) Guinhalinan River.

Fragmented and uncoordinated sector and lack of coordination for an Integrated Water Resources Management. There are over 30 water-related agencies in the country with overlapping functions, and no apex body coordinates and harmonizes the planning and management of water resources and control of

water-related hazards. In addition, temporal and spatial limitations to water-related data hinder the proper assessment of water resources, which is crucial for sustainable water resource planning and management³.

Social Infrastructure

Education

Additional classrooms are needed. Despite increased funding from various convergence the construction of additional projects, classrooms was hindered by the pandemic, natural calamities, and limited availability of land for school sites. Other issues identified during project implementation were the shortage of workforce and equipment, unstable soil conditions, poor quality of constructed buildings, and contractual concerns. The delayed implementation of some projects under the School Building Program also contributed to the non-achievement of the targets, with many school-building projects that must be completed to meet the increasing demand for classrooms.

Health

Inadequate barangay health stations. The number of operational barangay health stations and rural health units is still insufficient due to the delayed implementation of various HFEP projects in the region brought about by the pandemic, and natural disasters. This compromised the functionality of the health facilities. The ongoing implementation of HFEP, which covers the construction, repair, rehabilitation, and renovation of health facilities, was also hampered by the delays in the procurement and reversion of already approved projects due to the unavailability of project sites.

Unmet target for hospital-bed to population ratio. Despite the increase in total bed capacity, the target for the bed-to-population ratio of 1:1000 was not achieved since most hospitals in the region are primary-level or Level 1 with a capacity of only 25 to 75 beds. The actual bedto-population ratio is 1:1,299 as of 2020 (latest available data).

Insufficient dedicated evacuation centers in the region. Schools, churches, barangay halls, covered courts and gyms, and other multipurpose buildings are still converted into community evacuation centers or facilities, hampering the regular activities conducted in the various public infrastructures. These facilities are not designed to serve as temporary accommodations, so they do not have the appropriate facilities for evacuees.

Housing

Demand for living spaces continues to increase with population growth and in-migrants' influx to the region. Residential displacement caused by natural calamities such as typhoons and volcano eruptions also increased the demand for resettlement areas. The challenge is to provide decent, affordable, and disasterresilient housing units for the affected families.

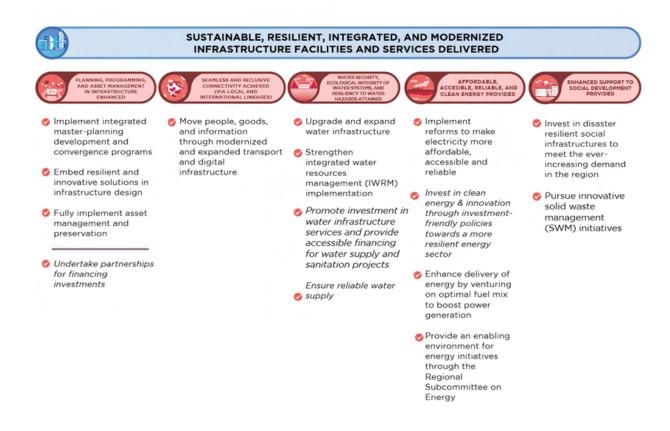
Prison and Jail Facilities

Prisons are overcrowded as the number of inmates continues to increase. The region is identified as one of the regions with the most congested jails in the country. It registered the biggest increase with 3,802 additional persons deprived of liberty (PDL) in 2021. The ideal capacity of 1 PDL for every 4.70 square meter prison cell space is unmet. The overcrowding of these facilities continued due to the intensified campaign against illegal drugs and the pleabargaining system which expedites court proceedings and puts more offenders in prisons. Expansion and improvement of existing facilities and free legal advice will be considered to address the overcrowding problem and prevent the spread of communicable diseases.

Strategy Framework

The region will adopt the strategic framework of the PDP 2023-2028 towards the attainment of sustainable, resilient, integrated, and modernized infrastructure facilities and services delivered with the following subsector outcomes: a) planning, programming, and asset management in infrastructure enhanced; b) seamless and inclusive connectivity achieved (via local and international linkages); c) water security and ecological integrity of water systems and resiliency to water hazards attained; d) affordable, accessible, reliable, and sustainable energy provided; and e) enhanced support to social development provided.

Figure 13.2 Strategy Framework for Expanding and Upgrading Infrastructure



Strategies

Outcome 1: Planning, programming, and asset management in infrastructure enhanced

Implement integrated masterplanning development and convergence programs

CALABARZON transport related plans will **be formulated and implemented.** To resolve the fragmented transport system in CALABARZON, the region will implement an integrated masterplanning approach and pursue convergence programs to ensure that future infrastructure development is interrelated. Through this approach, the region can ensure intermodal transportation that will spur economic growth and ensure that social services are accessible and delivered to the people.

The region will also implement the Regional Infrastructure Connectivity Plan (ICP) which serves as a detailed framework of CALABARZON's strategies, programs, and projects for infrastructure development. Other related plans will also be implemented, such as the Real-Infanta-General Nakar (REINA) ICP which serves as an infrastructure development framework for the REINA Cluster in Quezon Province. Other than implementing plans, convergence programs will be continued such as the DOT-DPWH Convergence Program for tourism roads and the Roads Leveraging Linkages of Industry and Trade (ROLL-IT) Program of DTI.

Transport connectivity to be improved and inter-modal transportation to adopted. Inter-modal transportation will be adopted as a major design and consideration

in infrastructure projects to enhance the interconnectivity of transport systems. Transitoriented development in terminals will be pursued, encouraging mixed-use terminals, especially with the ongoing development of the North-South Commuter Railway and South Long Haul Railway Projects. The LGUs will also be encouraged to support Smart Cities Development and Green Infrastructure to adopt new technologies that will help enhance transport connectivity, encourage non-motorized transportation, and improve environmental conditions. Implementation of critical connectivity projects will be fast-tracked to support and spur transport connectivity and economic growth.

Other transport systems to be mainstreamed.

The overall transport masterplan CALABARZON will consider the proposed inland water systems along Laguna de Bay and the construction of an airport in Sangley Point, Cavite. In addition, the region will support the institutionalization of the Maritime Industry Development Plan.

Furthermore, the government agencies and the LGUs will ensure the complementarity of efforts in the rollout of infrastructure projects identified in sectoral or spatial master plans. Capacities for local governments to assume responsibility and accountability for infrastructure outcomes will be built as local infrastructure planning and development will be fully devolved to LGUs.

Embed resilient and innovative solutions in infrastructure design

Intelligent transport systems master plan, smart road design, and traffic command centers will be established and pursued. The DOTr will be encouraged to formulate an Intelligent Transport System Master Plan for CALABARZON or its highly urbanized areas to alleviate traffic congestion. The DPWH will pursue the Smart Road Design to ensure that roads are future-proof, such as including lay-bys in Bypass Road Design and the use of semi-permeable roads to resolve flooding concerns. The shift to electric vehicles will be encouraged as new technologies help improve transport services and achieve energy efficiency. Inclusivity will also be a top priority in designing infrastructure and transportation vehicles or vessels in the region to ensure equal access to transport services for all people.

Traffic Command Centers will also be established through Land Transportation Office's (LTO's) partnership with concerned LGUs to help ease traffic congestion. The Task Group Biyaheng Ligtas of the RDC will also continue assisting the riding public during the peak travel season. Digitization of transport facilities and systems will also be pursued to improve the efficiency of the region's transport system, such as the one-ticketing system.

Local access roads to international gateways are to be improved and traffic assessment will be conducted. The local access roads connecting to different international gateways such as ports, airports, and railways will be improved to ensure that there are no choke points along major transport corridors. Traffic assessment on chokepoints, connecting roads, and expressways

will be conducted to ensure timely and effective interventions.

Roads and RROWs will be protected and secured. The road and RROWs will be secured through continuous removal of obstructions (structures, poles, and trees) and enforcement of no parking rules to ensure maximized use of roads. LGUs will be encouraged to explore landbanking of areas covered by bypass or diversion roads to prevent encroachment along national roads and secure these areas' development direction.

Transport systems gear towards resiliency. The region will ensure the integration of climate and disaster resilience into the existing and proposed enhancement of transport facilities.

Fully implement asset management and preservation

RROWA to be prioritized. The DPWH IV-A reports that the most common cause of project delay is RROWA. The CALABARZON Regional Project Monitoring Committee also observed this. Therefore, the region will encourage Congress to prioritize the budget for RROWA to avoid delays in project implementation. The region will also push for legislation allowing RROWA funds per project instead of a general fund for RROWA.

Undertake strategic partnerships for financing investments

The engagement of the private sector in the utilization and enhancement of port and airport facilities in the region will be ensured. As primary users of the ports, the port operators will be encouraged to initiate the rehabilitation and expansion of port facilities, including

terminal buildings and berthing facilities. On the other hand, the PPA, which exercises oversight functions over ports, must strategically develop projects and promote infrastructure plans with prospects of good financial returns. Similarly, the government must ensure the integration of climate risks in the infrastructure facilities' planning, management, or operation.

Outcome 2: Seamless and inclusive connectivity via local and international linkages achieved

Move people, goods, and information through modernized and expanded transport and digital infrastructure with the active participation of the private sector

Expand regional gateway and linkages. The region's seaports and airports are its gateways to inter-regional and international linkages. The strategy is to ensure port utilization and redirect international cargo shippers' domestic shipping toward Batangas Port. This will help decongest the Port of Manila. To ensure efficiency, constructing an Inland Container Depot and the Cavite Gateway RoRo Terminal may be considered to widen options for logistics support. The port facilities' locations, capacities, and efficiencies will influence future industries' investment decisions and the corresponding load on the surface transportation system.

In addition, the region will explore expanding its inter-island and inter-regional links to promote tourism and accelerate area development to benefit island municipalities. Some of the projects being developed or are being implemented are the Bataan-Cavite Interlink Bridge, General Nakar-Dingalan Road, Quezon-Roma Pint Bridge, South Luzon Expressway Toll Road 5, Batangas-Mindoro Bridge and Marinduque-Quezon Link Expressway.

Develop other modes of transportation systems. The ferry system will be introduced through coastal and inland waterways. This will be established as an alternative sustainable transport mode to improve the connectivity of the regional transport system. There is a need to utilize rivers and lakes like the Laguna de Bay for this purpose. Given its proximity to Metro Manila, there is considerable potential in maximizing it to ease traffic congestion. The Maritime Industry Development Plan highlights its priority, Program 3, to be implemented from 2024 to 2028. Non-motorized transportation will be pursued through the development of Smart Cities. The region will promote bike lanes and walkable cities. The City of Santa Rosa has finished the Santa Rosa Smart City Roadmap 2023-2033, which can serve as a pilot model of Smart Cities, including implementing nonmotorized transport systems in the region.

Under Program 3, the Coastal and Inland Waterways Transport System will be developed, markings/navigational aids will be installed, boats, ports, and terminals will be operated and constructed, and an information system will be established. The pilot implementation is in Laguna Lake in 2024.

The proposed Ferry Stations in Laguna Lake are divided into three components with stations in Binangonan Rizal, Napindan-C6, Lower Bicutan-C6, San Pedro, Santa Rosa, Calamba City under Component 1; Morong Rizal, Pililla, Rizal, Jala-jala, Talim Island, and Los Banos under Component 2, and Pila and Santa Cruz in Component 3. Maritime Industry Authority also reported that the activities to operationalize the ferry system include massive dredging and the purchase of water lily harvesters and buoys.

The nautical highway will be improved. The improvement in the port facilities will also be pursued. This will ensure efficient and safe transport of people and goods to the islands and to the other regions. The proposed improvements will be undertaken in the Calasumanga Port and Bonbon Port in Panukulan, Quezon, the ports of Anilao, Mabini, Verde Island in Batangas, and Burdeos, Cagbalete, Patnanungan, and Padre Burgos in Quezon. In addition, the Calatagan Port will be constructed. Improvements in port facilities, such as installing additional berthing facilities, will encourage more locators and eventually optimize port utilization. This will create economic opportunities for the region and aid in decongesting the container terminals in Manila.

Furthermore, new RoRo routes will be introduced, and the capacity of RoRo facilities will be increased. These will be supported with modern ancillary facilities for passengers. The application of electronic terminal management systems, such as electronic ticketing and manifest submissions, will be streamlined. The aging fleet will also be replaced.

Airports will be improved, and new ones will be strategically developed to address future demand. Further enhancements on the Sangley Airport Development Project include constructing a control tower building, powerhouse, and access road. For 2023 and

beyond, the improvements to be pursued are the construction of a cargo terminal building and the development of a passenger terminal building.

Meanwhile, the Province of Cavite proposed the development of the 1,500-hectare Sangley International Airport which will feature four runways and a terminal that can accommodate 100 million passengers annually. This airport is seen to decongest the traffic at NAIA.

Expand and modernize digital infrastructure.

The region will support the development of a responsive policy and regulatory issuances and provide necessary interventions to accelerate investments, particularly in the countryside. It includes the review of existing laws, policies, and regulatory issuances on telecommunications and ICT. The recently issued guidelines on common tower policy or the Shared Passive Telecommunications Tower Infrastructures will be supported and promoted. Under the guidelines, the common towers should provide ample access slots for telecommunication companies (telcos) and DICT. The common towers, being a shared facility, will be costefficient for telcos, and it will also accelerate internet access, particularly in unserved and underserved areas. The in-building solutions which pertain to the cellular tower within a building may also be considered. To facilitate the roll-out of broadband infrastructure in less profitable or remote areas, the government will continue to use its existing assets and provide free Wi-Fi facilities. The National Broadband Program GovNet will be expanded to connect the LGUs and government agencies in the region's national fiber backbone.

Outcome 3: Water security and ecological integrity of water systems and resiliency to water hazards attained

Efficient and sustainable management of water resources and ecosystems, upgrading and expansion of water infrastructures, and sufficient and reliable water supply are necessary to support the region's growing water demand while maintaining ecological integrity and ensuring socio-economic resilience to climate change and water hazards. Along with this, strengthened implementation of integrated water resources management (IWRM) and enhanced coordination and harmonized planning, management, and implementation of policies, programs, projects, and activities are crucial to achieving the Sustainable Development Goal of universal access to safe, sufficient, affordable and sustainable water supply and sanitization by 2030.

The PWSSMP is the national action plan to achieve universal access to safe, sufficient, affordable, and sustainable water supply, hygiene, and sanitation by 2030. To achieve water security and ecological integrity of water systems and resilience to water hazards, the following strategies, which are aligned with the PWSSMP, will be pursued in the region:

Upgrade and expand water infrastructure

There is a need to expand water infrastructure to ensure water security and increase coverage waterless communities. among Water infrastructure will continually be improved to ensure resilience to hazards and adaptability to climate change. The following key activities will support the upgrading and expansion of water infrastructure:

- Construction of new water supply and sanitation (WSS) infrastructure and adoption of climate-resilient technologies to new and existing infrastructure
- Implementation of climate-resilient hydraulic structures and retention/ retarding basins for flood control and drainage systems
- Adoption of CFRAS recommendations, particularly for the 20 Priority River Basins most susceptible to flooding
- Modernization/construction of climateresilient irrigation facilities and smallscale irrigation systems
- Installation of rainwater harvesting and storage facilities

Strengthen integrated water resources management implementation and water governance

Water resources development and management must be integrated with land use, coastal, and hazard management in the context of IWRM. There is a need to improve the availability of updated and relevant water-related data and establish a data monitoring system to consolidate and facilitate data-sharing among concerned agencies in the sector.

Moreover, sustainable management of water resources should be promoted and adopted by LGUs, given the implementation of Executive Order No. 138, which will devolve water services delivery to them.

Promote investment in water infrastructure services and provide accessible financing for water supply and sanitation projects

The economic regulatory environment will be strengthened to promote investments and improve the availability and acquisition of funds and financing for WSS services. The following activities will be essential to accelerate and sustain the delivery of WSS services:

- Encourage Public-Private Partnerships to improve and expand the provision of WSS services
- Evaluate the effectiveness of WSS programs, especially those directed at the low-income and waterless municipalities; this will be done by DILG
- Conduct a capacity needs assessment of water service providers (WSPs) and LGUs within their respective jurisdictions and prepare training/mentoring programs internally or in partnership with other service providers; this will be a collaboration among DILG, DOH, and Local Water Utilities Administration (LWUA); and
- Capacitate water districts (WDs) and LGU-run WSPs on tariff setting and formulation of business plans; this will be spearheaded by LWUA
- Pursue research and development to explore climate-resilient technologies, innovative solutions, and policies for the sector

Ensure Reliable Water Supply

There is a need to ensure access to safe and adequate water supply given the region's consistently growing water demand and limited water resources. Water demand management programs should be strengthened to address the demand-supply gap. Along with this, the following recommendations should be prioritized in the region:

- Develop surface water source for watercritical areas
- Incorporate groundwater recharge systems in the development of surface water sources for critical areas wherever possible, following prescribed standards
- Use and design eco-efficient water infrastructure to address any mismatch between water demand and supply (e.g., use of permeable pavement to aid groundwater recharge and reduce the volume of surface water runoff)
- Develop new water sources to protect watersheds critical to existing and potential water sources while ensuring compliance of related activities to statutory requirements, including the Free Prior and Informed Consent Process, environmental compliance certificate, and Special Use Agreement in Protected Areas, among others.

The NWRB will assess resources and recommend which areas should shift from groundwater to surface water sources.

The provision of incentives for LGUs hosting watersheds will be explored to encourage the protection of water ecosystems, thereby ensuring sustainable management of local water resources. Relatedly, hosting systems for watershed LGUs that could provide water to adjacent LGUs with depleted groundwater levels will also be explored. In line with this, the region will support the recommendations

from the issue paper, "Proposed Financial Benefits to LGUs that Host and Contribute to Water Resource Projects," endorsed by the CALABARZON RDC to the Luzon Regional Development Committee (RDCom) through Resolution No. IV-A-103-2020.

Meanwhile, the New Centennial Water Source - Kaliwa Dam Project (NCWS-KDP) will serve as an additional water source to reduce the total dependency on Angat-Ipo-La Mesa Raw Water Conveyance System. The dam will address the increasing water demand in Metro Manila, including adjoining areas in Cavite and Rizal. The social and environmental impacts of the water resource development projects will be properly managed and addressed.

Outcome 4: Affordable, accessible, reliable, efficient and clean energy provided

Implement reforms to make electricity more efficient, affordable, accessible and reliable

Achieve total electrification through adherence to EO No. 156. The said EO guides agencies, including DOE, National Electrification Administration (NEA), Energy Regulatory Commission (ERC), etc. on their respective mandates that will contribute towards achieving 100 percent electrification in the country. The Microgrid Systems Act, which aims to promote the use of microgrid systems through Microgrid Service Providers (MGSPs), will accelerate total electrification and ensure the provision of quality, reliable, and secure electricity service at reasonable rates in unserved and underserved areas of the country.

Accelerate the implementation and enforcement of energy efficiency and conservation (EEC) programs and continue the implementation of targeted subsidies. To reduce energy costs, the DOE will accelerate the implementation and enforcement of EEC programs, including the Government Energy Management Program (GEMP), the Philippine Energy Labeling Program (PELP), and the

accreditation of energy efficiency practitioners, among others. DOE will also continue its EEC advocacy in various avenues, like the SCE and the RDC. To maximize LGU participation, especially in assessing the electricity demand for various locations, the LGU will participate in the initiatives and activities related to EEC programs led by DOE and other energy-related programs by the SCE and RDC.

To address the rising fuel cost, the DOE will continue negotiating with the oil companies to implement a fuel discount program. Subsidies will be provided to various sectors, such as agriculture and transport.

Implementing the Lifeline Rate Extension Act will also mitigate the impact of electricity prices on consumers. It extended the lifeline rate or the subsidy being granted to qualified marginalized consumers, such as the beneficiaries under the 4Ps and those who have been certified by the respective distribution utilities (DUs) and ECs based on the criteria set by the ERC by 30 years, taking effect until 2051.

The DOE will ensure the implementation of RA 11371 or the Murang Kuryente Act (MKA). The MKA allows the use of the government's share from Malampaya as payment for the stranded contract cost and stranded debts of the National Power Corporation.

Invest in clean energy and innovation through investment-friendly policies towards a more resilient and competitive energy sector

The adoption of the Energy Resiliency Policy (reinforced through DC2022-06-0028) and the enactment of policies under RA11361 or the Anti-Obstruction of Power Lines Act aim to create resilient energy facilities and infrastructure to withstand natural disasters and calamities and ensure uninterrupted delivery of energy supply and services, especially during times of emergencies. With the impending depletion of the Malampaya gas resources and the constant threat of natural calamities, the region will prepare for power outages or interruptions.

In preparation for the potentially disastrous impact of "The Big One" or the threats of a Magnitude 6.5 – 7.2 earthquake in the Greater Metro Manila Area, including CALABARZON, the DOE will disseminate the National Energy Contingency Plan in cooperation with the concerned agencies and various energy stakeholders.

The transition from fossil fuel-based energy to other cleaner energy sources like solar, hydro, geothermal, liquefied natural gas, and wind power will be part of the energy sector's continuing advocacy to attract more investments in clean energy technologies in support of the National Renewable Energy Program (NREP) of the DOE. As of December 2021, there are 117 renewable energy service contracts in CALABARZON. Under the Clean

Energy Scenario of the Philippine Energy Plan 2020-2040, RE share in the power generation mix is targeted to reach 35 percent in 2030 and 50 percent by 2040.

The policies and programs that may enable energy to be more cost-competitive and provide consumer choices in terms of supply will be pursued, including retail competition and open access (RCOA), competitive selection process (CSP), and green energy option program (GEOP). The implementation of RCOA, as one of the EPIRA reforms, allows qualified electricity end-users or contestable customers to choose their electricity suppliers at an agreed contract price. Meanwhile, CSP is a policy that mandates all DUs to consider the least-cost supply in its franchise area by undergoing power supply contracting in a transparent procedure. The GEOP is an RE policy mechanism allowing consumers with 100 kilowatts (kW) and above demand to source their electricity supply from RE suppliers.

Enhance delivery of energy by venturing on optimal fuel mix to boost power generation

There is a need to maximize the net benefits of energy given an efficient energy transition that respects technological neutrality and promotes a level playing field. Tax externalities such as carbon tax at the source will also be considered. Rationalizing bureaucratic processes on investments will aid in generating and exploring energy sources. DOE will strengthen its mandate in crafting and implementing a master plan to coordinate investment in generation, transmission, and distribution infrastructure. Further, upgrading and modernizing the transmission and distribution lines will help

facilitate the efficient transition to cleaner energy and avoid power disruptions.

Issuance of investor-friendly policies. While permitting and licensing processes remain challenging, the strict implementation of RA 11234 or the Energy Virtual One Stop Shop (EVOSS) Act, will be crucial in the energy sector's goal of eliminating red tape and promoting faster and simplified ways of permitting process. Additionally, the implementation of the DILG-DOE Joint Memorandum Circular No. 2020-01 or the LGU Energy Code and RA 11032, or the Ease of Doing Business Act of 2018, will generate investments and stimulate growth in the energy sector.

Development of the Liquefied Natural Gas (LNG) industry. With the absence of an indigenous replacement for the natural gas supply of the Malampaya Gas Field, the DOE is keen on developing the LNG industry of the country. The DOE issued six permits to develop

the proposed LNG import terminal projects in Batangas and Quezon. Of the total projects, two are expected to be operational by the first half of 2023 - Linseed Field Corporation (March) and FGEN LNG Corporation (June) - which will be able to supply the existing anchor markets of Malampaya.

Provide an enabling environment for energy initiatives through the Regional Subcommittee on Energy

Continued collaboration through the Regional Sub-Committee on Energy will be pursued. Created under CALABARZON'S Sectoral Committee on Infrastructure Development (SCID), the DOE, as Chair and Secretariat of the SCE, will continue to monitor the implementation of the DOE-DILG Joint Memorandum Circular 2020-01 or the LGU Energy Code in the region and serve as a venue to address energy-related issues.

Outcome 5: Enhanced support to social development provided

Invest in disaster-resilient social infrastructures to meet the everincreasing demand in the region

The continued implementation of DepEd's convergence programs will be pursued. The School Building Program and the Last Mile Schools Project will continuously be implemented to address the gaps in providing quality and inclusive education, especially in the New Normal. Given the implementation of Full Devolution, LGUs will also play a vital part in meeting the demand and supply of students to schools and classrooms. Further, constructing support infrastructures such as access roads

will also maximize the utility of schools and classrooms in GIDAs.

To address the delayed construction of health facilities in the region due to the pandemic and natural calamities, the DOH will expedite the ongoing HFEP projects, which involve the construction of barangay health stations and rural health units and the upgrading of health facilities and equipment. DOH will also ensure that more testing laboratories, quarantine, and isolation facilities will be accredited and established through the convergence of DOH, DOST, LGUs, and the private sector. The DOH

will also closely monitor the implementation of HFEP projects to ensure timely implementation.

New jail facilities will be constructed to address the problem of jail congestion in the region. Other interventions to address this concern are discussed in Chapter 14 (Ensure Peace and Security).

Dedicated and multi-functional evacuation centers will also be considered. The evacuation centers will be outside the high-risk areas and will have full features, i.e., separate toilets, baths, kitchens, and solid and liquid waste management infrastructures. These evacuation centers will be able to accommodate the affected population within the high-risk areas to avoid using other government infrastructures, e.g., schools, churches, and gyms, as evacuation centers and disrupt the related activities/services in the area.

Moreover, to address the rapid in-migration in the region, the DHSUD will prioritize the construction of disaster-resilient settlement areas, which will support the strategy for "livable communities" (Chapter 4.3). This concept of a livable community will guide the housing sector to comply with the technical standards and guidelines with water, sanitation, and hygiene facilities. LGUs will identify and ensure the availability of safe and accessible sites for the construction of the settlement sites before project implementation.

Pursue innovative solid waste management (SWM) investments and initiatives

There is a need to capacitate LGUs in implementing their Solid Waste Management Plans and intensify the conduct of IEC in communities on efficient waste segregation and management. Concerned government agencies will provide technical and financial assistance to LGUs in establishing, operating, and upgrading existing treatment facilities and offer incentives and recognition of best practices on waste management.

Investments and project proposals to support Waste-to-Energy technologies will also be encouraged, as well as initiatives to establish LGU and industry linkages to reduce harmful waste materials.

Legislative Agenda

Table 13.5 presents the region's priority legislative agenda to expand and upgrade infrastructure.

Table 13.5 Legislative Agenda to to Expand and Upgrade Infrastructure

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Prevent obstruction along RROW	This law/policy will ensure that existing road assets are secured from the encroachment of utility companies during their installation of poles along RROW, which undermine the utilization of the widened roads.	DPWH
Creation of the Department of Water Resources (DWR) and the Water Regulatory Commission (WRC) as its attached agency.	The region will support the creation of the DWR as an apex body for the WSS Sector. As an independent economic regulatory body, the DWR will consolidate the economic and regulatory powers of various water agencies into one authority responsible for setting standards and targets for both private and public water utilities, serve as the regulating body for concession agreements and other contracts for water supply projects guided by the IWRM Framework, and ensure responsiveness to climate risks and sustainability of water resources, among others.	NEDA
Revisit RA 9136	This revisits the policy to ensure its responsiveness to the electric power industry.	DOE, ERC, NEA
Comprehensive Atomic Energy Regulatory Framework	This will create a nuclear regulatory body for the peaceful uses and application of nuclear energy.	DOE, DOST
Enhancing and strengthening the ERC	This will enhance the existing governance mechanisms of the ERC to foster independence, transparency, and accountability.	DOE, ERC
Development and Regulation of Philippine Midstream & Downstream Natural Gas	This aims to consolidate and enhance various executive issuances and policies governing natural gas transmission, distribution, and supply. This will also provide the regulatory framework for developing the natural gas industry, strengthening energy security by diversifying the country's primary energy sources and promoting the role of natural gas as a complementary fuel to renewable energy.	DOE
Revisiting RA 10531 (National Electrification Administration Reform Act of 2013)	This will enhance and streamline the mandate of NEA to ensure the quality, reliability, and security of electric power supply.	DOE, NEA
Amendment of RA 8479 (Downstream Oil Industry Deregulation Act of 1998)	This will clarify the functions of the DOE, DTI, and Philippine Competition Commission (PCC) to ensure regulatory compliance of oil companies.	DOE, DTI, PCC, DOF
Waste-to-Energy Act	This will establish a national policy and regulatory framework on the entire value chain of waste to energy. This will also define the roles of agencies such as DOE, DENR, DILG, and LGUs in the development of the industry.	DOE/DENR
Amendment of RA No. 9367 (Biofuels Act of 2006)	This aims to provide a time-bound suspension or reduction of the biofuels component if oil prices are lower than biofuels.	DOE, DILG
Amendment of PD No. 87 (The Oil Exploration and Development Act of 1972)	This seeks to revitalize interest and encourage more drilling activities in the country	DOE, DENR, DILG, DOF

Results Matrix

Table 13.6 presents the indicators and targets within the plan period to expand and upgrade infrastructure.

Table 13.6 Results Matrix: Expand and Upgrade Infrastructure

	BASELINE	TARGETS							RESPONSIBLE
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
Percentage of national roads in good condition increased [%]	TBD		Increasing						DPWH
Number of bridges retrofitted	TBD	53	32	29	26	23	20	20	DPWH
Number of kilometers of roads and bridges widened	TBD	5.316	2.35	4.5	5.5	6.5	7.5	7.5	DPWH
Travel time (decreased) via land per key corridor (in hours)	TBD	0.05	0.083	0.117	0.15	0.183	0.25	0.25	DPWH
Increase road network connectivity (number of kilometers of constructed roads and bridges, bypass & diversion road projects included)	TBD	17.06	22	27	32	37	42	42	DPWH
Road traffic accident (crash) rate reduced (in number of incidents per 100,000 population) incidents of accidents	TBD		Increasing						LTO/ OCD/ PNP
Proportion of population exposure to the internet in social interaction	TBD		Increasing						DICT
Proportion of the population with exposure to the internet in research work/study	TBD		Increasing						DICT
Fixed Internet broadband subscriptions per 100 inhabitants	TBD	Increasing						DICT	
Proportion of the population with exposure to the internet	TBD	Increasing						DICT	
Number of established Free Wi-fi for All Sites in public places, SUCs/Public Schools, GIDA Sites	TBD	Increasing					DICT		

	BASELINE	TARGETS							RESPONSIBLE
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
Ratio of actual irrigated area to the total potential irrigable area increased (%, Cumulative)	TBD	70.23	75.61	75.86	76.13	76.86	77.24	77.43	NIA
Proportion of sitios with electric connections against potential sitios increased [%]	"94.41% (2021)"	Increasing					NEA-EC		
Classroom-to-Pupil Ratio									
a. Kindergarten	"1:43 (2021) "	1:42	1:41	1:39	1:38	1:37	1:35	1:42	DepEd NSBI (Elementary Classroom-Learner Ratio is computed by the level of education)
b. Primary (Grade 1-3)"	"1:43 (2021)"	1:42	1:41	1:39	1:38	1:37	1:35	1:42	DepEd NSBI (Elementary Classroom-Learner Ratio is computed by the level of education)
c. Primary (Grade 4-6)"	"1:43 (2021) "	1:42	1:41	1:39	1:38	1:37	1:25	1:42	DepEd NSBI (Elementary Classroom-Learner Ratio is computed by the level of education)
d. Junior High School	1:57 (2021)	1:55	1:53	1:51	1:49	1:47	1:45	1:55	DepEd NSBI
d. Senior High School	1:44 (2021)	1:43	1:43	1:42	1:41	1:41	1:40	1:43	DepEd NSBI
Classroom-to-Pupil Ratio									
a. Primary (K to 6)	"95.52% (2020)"	96%	97%	98%	99%	99%	100%	100%	Basic Education Information System (BEIS)
b. Junior High School	"93.09% (2020"	94%	95%	97%	98%	99%	100%	100%	BEIS
c. Senior High School	"84.25% (2020) "	87%	90%	92%	95%	97%	100%	100%	BEIS

Endnote:

- [1] Philippines Median Country Speeds. (November 2022). Speed Test. Retrieved on: https://www.speedtest.net/global-index/philippines
- [2] Re Level III System pertains to a water supply facility with a source, a reservoir, a piped distribution network with an adequate treatment facility, and household taps (PSA).
- [3] Level I System pertains to a protected well or a developed spring with an outlet but without a distribution system, generally adaptable for rural areas where the houses are thinly scattered (PSA).
- [4] Level II System pertains to a water supply facility composed of a source, a reservoir, a piped distribution network with an adequate treatment facility, and communal faucets (PSA).
- [5] Pour or flush toilet connected to any of the following: septic tank, community sewerage system, and ventilated improved pit latrine.
- [6] CALABARZON Regional Rehabilitation and Recovery Program for Areas Affected by Tropical Cyclones Quinta, Rolly, and Ulysses. (April 2021).
- [7] Percentage share of the Industry Sector to CALABARZON Gross Regional Domestic Product, at constant 2018 prices, averages to 50.3 percent from 2017 to
- [8] Philippine Water Supply and Sanitation Databook and Regional Roadmap. (2021). National Economic and Development Authority
- [9] Japan International Cooperation Agency (JICA) Master Plan on Water Resources Management in the Philippines (1998). NWRB; PAGASA Rainfall Data; Food and Agriculture Organization (FAO) of the United Nations Aquastat Data; Department of Environment and Natural Resources (DENR) River Basin Control Office (RBCO) Major River Basin Master Plans



Ensure Peace and Security, and Enhance Administration of Justice

Ensure Peace and Security, and Enhance Administration of **Justice**

The region caters to many agro-industrial, manufacturing, and information technology businesses in the ecozones. It also has the highest population among all regions in the country. Hence, it is necessary to prioritize peace and order and just and fair law enforcement. Convergence efforts among the region's stakeholders will be among the strategies to achieve a peaceful and safe environment. Through the Wholeof-Nation Approach (WONA), significant efforts by sub-national government institutions, collaboration with private sector organizations, and engagements with the local communities will help achieve peace, security, and safety in the region. Among the region's priority strategies are the continuous employment of tough stance against criminal acts and illegal and dangerous drugs, strengthening collaboration among law enforcement agencies to stop organized crimes, and organizing disaster prevention mitigation programs, advocacies, and disaster response initiatives.

Furthermore, the region aims to have a swift and fair administration of justice with elements of a human rights-based approach for socioeconomic development. In line with this, programs on humane rehabilitation and holistic reintegration to society of PDL will be strengthened.

Subchapter 14.1 Ensure Peace and Security

As peace agreements emanate from the national level, the region will promote them by implementing various PPAs that development and socioeconomic opportunities to local communities and protect them from threats to peace and security. The government will prioritize and harmonize the delivery of basic services and social development packages to facilitate societal inclusivity and ensure active participation of all sectors of society. This is in support of the peace agenda and Executive Order No.

70, series of 2018 entitled, "Institutionalizing the Whole-of-Nation Approach in Attaining Inclusive and Sustainable Peace, Creating a National Task Force to End Local Communist Armed Conflict (ELCAC), and Directing the Adoption of a National Peace Framework."

Law enforcement agencies will continue collaborating with LGUs, local communities, relevant stakeholders, and other government agencies to sustain partnerships for longlasting public order and safety.

Assessment and Challenges

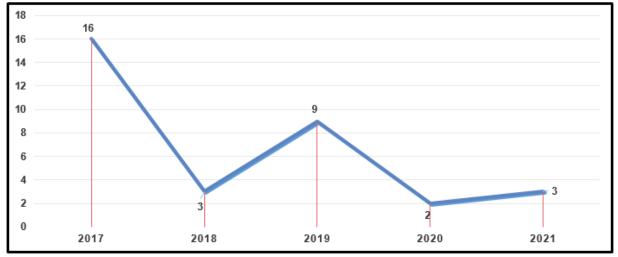
Assessment

Number of violent and non-violent activities initiated by Communist Terrorist Groups (CTGs) decreased. With the continuous implementation of anti-insurgency schemes, the Second Infantry Division of the Philippine

Army (PA-2ID) reported that the number of violent and non-violent activities initiated by CTGs decreased from 2017 to 2021 (Figures 14.1.1 and 14.1.2).

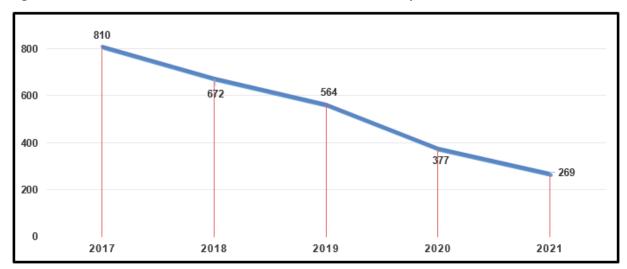
PNP Region IV-A reported that 256 rebels in CALABARZON surrendered to the government

Figure 14.1.1 Number of CTG Violent Activities in CALABARZON, 2017-2021



Source: Philippine Army - 2nd Infantry Division

Figure 14.1.2 Number of CTG Non-Violent Activities in CALABARZON, 2017-2021



Source: Philippine Army - 2nd Infantry Division

in 2021. The continued implementation of PPAs providing necessary assistance for the reintegration of former rebels into society helps entice rebels to return to the government's fold. Other RTF-ELCAC activities that may have contributed to the surrendering of rebels are the Ugnayan sa Barangay and Serbisyo Caravan under the Re-tooled Community Support Program (RCSP). LGUs also initiated local RCSP, which integrated interventions to address the concerns and needs of barangays into the RTF-ELCAC's Barangay Development Projects (BDPs). Immediate interventions included the construction of new barangay farm-to-market roads (FMRs) and the improvement of existing FMRs.

Moreover, with the support of the Office of the Presidential Adviser for Peace, Reconciliation, and Unity (OPAPRU), the region continues implement its peace development projects through the Payapa at Masaganang Pamayanan or PAMANA program. From 18 projects in 2020, the program implemented 24 projects in 2021. The projects varied from constructing barangay day-care centers, providing water supply systems like deep wells, installing electrification systems, and promoting agricultural livelihoods like swine, palay, coconut, cocoa, ginger, and vegetable production.

The CALABARZON RDC and Regional Peace and Order Council (RPOC) supported programs and projects toward achieving long-lasting peace and security, especially in the GIDAs or conflict-affected communities. Since 2019, the RDC Full Council and the RPOC Full Council have met annually to complement socioeconomic development with peace initiatives.

Number of drug-affected barangays decreased. For the past two years, the number of drug-affected barangays decreased from 3,704 in 2020 to 1,480 barangays in 2021. Furthermore, 2,335 barangays were cleared of illegal drugs in 2021. Establishing Anti-Drug Abuse Councils (ADACs) in LGUs and conducting barangay drug-clearing operations contributed to the continuous increase of drugcleared barangays. Moreover, joint operations between the PNP and the Philippine Drug Enforcement Agency (PDEA) against illegal drugs resulted in the arrest of illegal drug personalities and confiscation of illegal drugs.

Index crime rate decreased. The average monthly index crime rate in CALABARZON for 2021, which involves crimes against persons and crimes against property, is 2.67 percent. It translates to around 2.67 index crime incidents per month for every 100,000 people. Crimes against persons include murder, homicide, physical injury, and rape, while crimes against property are robbery, theft, carnapping/ carjacking, and cattle rustling. The generally stable and low monthly index crime rate may be attributed to the constant law enforcement operations such as anti-illegal drug operations and community surveillance, continuous improvement of the competency of the police force.

Meanwhile, the average monthly non-index crime rate increased by 3.55 percent from 22.47 percent in 2020 to 26.02 percent in 2021. Non-index crimes are crimes in violation of special laws like illegal gambling and violation of local ordinances. On the other hand, the Crime Solution Efficiency (CSE) rate was 86.47 percent in 2021, while the Crime Clearance Efficiency (CCE) rate was 95.75 percent in

the same year, up from 94.90 percent in 2020. The continuous improvement in CSE and CCE is due to the consistent monitoring and resolution of cases and follow-up operations by investigators resulting in the identification and arrest of suspects.

In 2021, PNP arrested about 10,961 street-level individual (SLI) criminals and about 189 groups related to illegal drugs. They also arrested 2,948 most-wanted individuals and confiscated about 100,000 unregistered firearms in the same year.

Damages from natural and human-induced disasters incurred. The Bureau of Fire Protection (BFP) Region IV-A reported that the region had 84 casualties due to disasters in 2021. Damages due to fire incidents reached PHP819.27 million, and about 19,892 vehicular accidents occurred in the same year.

Challenges

Ongoing threats to peace and development.

The PNP Region IV-A reported several ongoing activities of CTGs and CTG Affected Mass Organizations (CAMOs) within the region. Moreover, the region's relatively large population may adversely affect public order and safety. Hence, interventions to promote peace, public order, and safety are necessary to sustain the region's development.

Insufficient police force. The number of police officers still needs to grow to meet the standards. There is one police officer for every 1,428 civilians in CALABARZON as of 2021, far from the world standard of one is to 500.

Since 2020, PNP has focused on minimizing the incidents of index and non-index crimes. Based on PNP Region IV-A's Regional Investigation and Detective Management Division (RIDMD), index crime incidents decreased by 57.16 percent from 2019 to 2020. An increase in the number of police officers, both in police stations and on the streets, would have helped lessen crimes in the region.

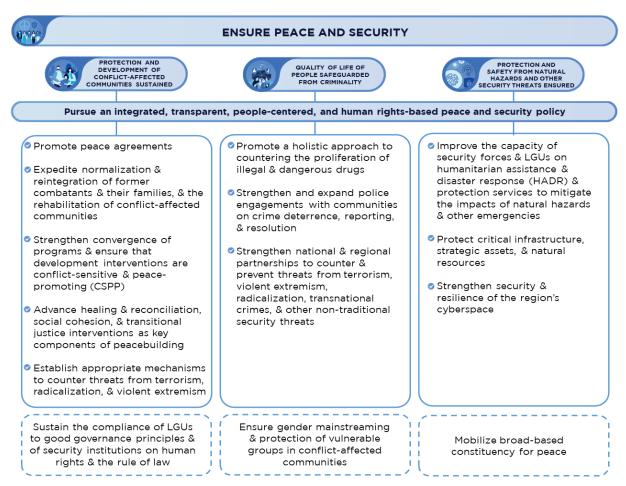
Inadequate logistical and technological capabilities. There is a need for additional modern equipment and other logistical needs to aid law enforcers. In addition, appropriate IT tools and training of PNP officers on cybercrime are needed to apprehend cybercriminals.

Challenges during preemptive and forced evacuations during disasters. Both the PNP and BFP disclose that preemptive and forced evacuations remain challenging during calamities and natural or human-induced disasters. Some people from disaster-stricken areas refuse to leave their homes, even in an emergency evacuation, due to anxiety about leaving their properties.

Strategy Framework

From the national up to the local communities, peace and security, and public order and safety are a must to have a progressive region. Stakeholders from agency regional offices, LGUs, academic institutions, private sectors from non-government organizations (NGOs), and civil society organizations (CSOs) must collaborate to achieve the peace agenda. The CALABARZON RDC and RPOC will support PPAs 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 14.1.3 Strategy Framework to Ensure Peace and Security



Strategies

Outcome 1: Conflict-affected communities and conflictvulnerable areas protected and development sustained

Promote peace agreements

The region will comply with peace agreements initiated by the national government. It will support national government programs toward attaining long-lasting peace. The RDC and RPOC will continue to implement the directives of EO 70, s.2018, its WONA programs, and projects through the RTF-ELCAC. The RDC will also continue to support and engage in various RPOC initiatives.

Expedite normalization and reintegration of former combatants and their families, and the rehabilitation of conflict-affected communities

The RDC Community Outreach Activities and the Enhanced Comprehensive Local Integration Program (E-CLIP) will be continued in coordination with the PA and other members of the RDC. The E-CLIP promotes reconciliation in a non-violent manner. It aims to provide a DILG-administered assistance package to CTG surrenderers, such as livelihood assistance, reintegration support, and firearms remuneration.

The RTF-ELCAC, led by the DILG Region IV-A, will continue prioritizing the implementation of the Local Government Support Fund for Support to Barangay Development Program (LGSF-SBDP) in the CALABARZON Convergence Areas (CCAs) as per CALABARZON RDC Resolution No. IV-A-75-2016: "CALABARZON Convergence Areas for Poverty Alleviation

Programs and Projects." These CCAs are 35 municipalities all over the region with high poverty incidence.

Strengthen convergence of programs and ensure that development interventions are conflict-sensitive and peace-promoting

Provincial/City/Municipal Peace and Order Councils (P/C/MPOCs) will be established LGUs. more Likewise. in continuous coordination among RPOC-P/C/MPOCs will be institutionalized. RDC-RPOC programs and projects will be realigned to GIDAs or ELCAC-identified areas. Various assistance and donations coursed through the RDC community outreach activities will be provided to areas recovering or vulnerable to armed conflicts. The RTF-ELCAC will continue the Ugnayan sa Barangays and Serbisyo Caravan under the Re-tooled Community Support Program. OPAPRU will assist the region in ensuring that development interventions are conflict-sensitive and peace-promoting through its capacitybuilding programs.

Advance healing and reconciliation, social cohesion, and transitional justice interventions as key components of peacebuilding

The RDC and RPOC will coordinate with the OPAPRU and LGUs toward attaining the Five-Point Peace Agenda. The PAMANA program of the OPAPRU will be one of the concrete interventions for providing the needs of conflict-

affected communities. It will complement the LGSF-SBDP in providing projects for development.

Furthermore, the DSWD Region IV-A or the LGU Social Welfare and Development Offices will provide expert interventions in dealing with former combatants and child soldiers. These include a sustainable livelihood program, assistance to individuals in crisis situations, psychosocial interventions, and other protective services, including the Pantawid Pamilyang Pilipino Program.

Establish appropriate mechanisms to counter threats from terrorism, radicalization, and violent extremism

Legal offensive initiatives, case build-up by the PNP, and intensified manhunt operations against remaining members of CTG personalities of the Southern Tagalog Regional Party Committee (STRPC) in CALABARZON will be implemented. Given the number of ecozones in CALABARZON that provides many economic activities within the region, the PNP will continue its reorientation and redirection of CAMOs. Ecozones will be guarded against extreme leftist ideologies to minimize disorder within the perimeters of the ecozones. The DICT Region IV-A will also provide telecommunication services to GIDAs and ELCAC convergence areas.

Community mobilization will be strengthened like the Kabataan Kontra Droga at Terorismo, which protects and capacitates the youth sector against illegal drugs and violent extremism. Concerning this, the Armed Forces of the Philippines (AFP), through its Southern Luzon Command (SOLCOM) and 2ID, will continue with its Campus Peace and Development Fora activities to gain meaningful discussions with students.

Outcome 2: Quality of life of people safeguarded from criminality

Promote a holistic approach to countering the proliferation of illegal and dangerous drugs

Law enforcement coordination led by PNP and the PDEA will remain aggressive through its intelligence-driven operation against any transactions related to dangerous drugs and drug groups (DGs) and continuous assertive accounting or monitoring of high-value individuals (HVIs), SLIs, and DGs.

For LGUs, barangay drug-clearing operations through the City/Municipality/Barangay ADACs will be strengthened. PNP and PDEA

will continue coordinating with the LGU ADACs and LGUs will be encouraged to implement community-based drug rehabilitation (CBDR) programs. 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

The PNP's national and sub-national offices will continue recruiting and training to produce quality police officers. In addition, the professionalization, pursuit of higher education, and other skills enhancement endeavors of police officers will be pursued by conducting competency training based on training needs analysis. The logistics and equipment of the police system will also be developed.

The PNP will also coordinate with LGUs, especially at the barangay level, for convergence efforts in patrolling, internal security, and law enforcement operations.

Operations against loose firearms through the implementation of search warrants, Oplan Accounting and Disposition of Firearms with Expired Registration, OPLAN "Katok," and License to Own and Possess Firearm (LTOPF) Caravan will be intensified. Strict compliance with the required documentation of firearm buyers will also be strengthened to prevent sales to unscrupulous individuals and easily trace licenses with expired registrations and LTOPFs.

On matters involving juvenile delinquencies, the PNP will coordinate with DSWD for interventions for minors. In addition, both agencies will follow and implement the country's Comprehensive National Juvenile Intervention Program.

Furthermore, procurement of needed assets/ equipment will be initiated, and ICT systems for advanced anti-criminality strategies and database establishment will be integrated for easy access and preservation of relevant information and documents.

Strengthen national and regional partnerships to counter and prevent threats from terrorism, violent extremism, radicalization, transnational crimes, and other non-traditional security threats

There will be inter-regional coordination of agencies to handle CTGs' inter-regional journeys, recruitments, and other activities among regional borders. Manhunt operations against wanted persons, even across regional borders, will be intensified.

National and regional PNP offices will be more aggressive in conducting intelligence-driven operations against criminal groups and implementing search warrants on target personalities. In addition, dedicated tracker teams in CALABARZON will be created. PNP Region IV-A will also intensify its fight against cybercrimes by improving its ICT programs and prioritizing the Anti-Online Sexual Abuse or Exploitation of Children.

Outcome 3: Protection and safety from hazards and other threats ensured

Improve the capacity of security forces and LGUs on humanitarian assistance and disaster response, and protection services to mitigate the impacts of natural hazards and other emergencies

The region will support the implementation of the National Disaster Risk Reduction and Management Plan 2020–2030. Similar to the national strategy, the National Chemical, Biological, Radiological, and Nuclear (CBRN) Action Plan will be integrated with local disaster mitigation and response planning, with the established protocols and standard operating procedures for CBRN-related concerns. Moreover, BFP will conduct fire safety inspections as a precautionary measure and to prevent casualties during disasters.

Coordination among PNP, BFP, OCD, DILG, LGUs, and DSWD will be pursued for various initiatives to mitigate the impacts of natural and human-induced disasters, such as the following:

- *Oplan Paghalasa* as a response to typhoon and its damaging effects;
- Oplan Ligtas na Pamayanan / Ugnayan sa Barangay;
- Oplan Kaluluwa every last week of October, 1st and 2nd day of November; and
- *Oplan Iwas Paputok* as preparation for the yuletide season.

The Gawad Kalasag Awards coordinated by OCD Region IV-A will be continued. It is a program that contributes to and makes LGUs able to revisit, improve, and implement disaster risk reduction and management plans at all levels.

The region will intensify its humanitarian assistance with the help of various stakeholders, including the private sector. The coordination with reservists and other private individuals or group volunteers for disaster response will also be explored.

Protect critical infrastructure, strategic assets, and natural resources

Critical infrastructures like roads, telco towers, warehouses, etc., will be guarded and protected through the coordination of the military, police, and LGUs. Natural assets, especially the protected areas, will be continuously safeguarded by regional and local entities in accordance with existing laws.

Strengthen security and resilience of the region's cyberspace

Following the country's policy on cyberspace security, the DICT, SOLCOM/PA-2ID, PNP, DTI (for illegal online selling), National Intelligence Coordinating Agency (NICA), and other regional entities will coordinate to fight terrorism and other criminal or illegal activities in cyberspace.

In addition, law enforcers will be on alert against cybercrimes within the region or across regional borders. NICA and DICT will coordinate on how to monitor cyberspace for any potential terrorist activities.

Cross-cutting Strategies

Sustain compliance of LGUs to good governance principles and of security institutions on human rights and the rule of law

Good governance, human rights, and the rule of law remain the region's guiding principles in various development activities. Commission on Human Rights (CHR) Region IV-A will continue to promote compliance of LGUs and regional line agencies to human rights. The RDC and its sectoral committees will serve as a venue to improve human rights and good governance in the region (Refer to Chapter 15 for strategies on good governance).

Ensure gender mainstreaming and protection of vulnerable groups in conflict-affected communities

The CALABARZON Regional GAD Committee will continue to guide the region in ensuring

gender equality and equity among all PPAs. Moreover, PNP will continue to take necessary actions against VAWC. Construction of municipal police stations and installation of VAWC desks in all police stations will be continued to give more access to vulnerable individuals to file complaints.

Mobilize a broad-based constituency for peace

The advocacy activities of the RTF-ELCAC, like the Ugnayan sa Barangay and Campus Peace and Development Fora, are ways to share ideas, discuss things, and have meaningful conversations with the government and citizens. Like the national strategy, peace education will be integrated into formal and informal learning platforms.

Legislative Agenda

Table 14.1.1 presents the region's priority legislative agenda to ensure peace and security.

Table 14.1.1 Legislative Agenda to Ensure Peace and Security

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
CALABARZON export sectors	restored, sustained and strengthened	
Amendment of Sec. 4 of RA 10883 or the "New Anti- Carnapping Act of 2016"	The proposed amendment is the inclusion of a provision for the penalty of imprisonment for not less than two years nor more than six years and a fine equal to the acquisition cost of the motor vehicle, motor vehicle engine, or any other part involved in the violation.	PNP
Amendment of Sections 14 and 16 of RA 10175 (Cybercrime Prevention Act)	The proposed amendments are as follows: A court warrant willl not be required to disclose the subscriber's information provided it is necessary to fulfill the law enforcement mandate. A mere letter request signed by authorized law enforcement agents should suffice. It is recommended that the results of the digital forensic examination cannot be used as evidence in filing the case in court unless a Motion is filed for such purpose be amended to allow the law enforcement authority to retain a copy of the computer data for purposes of case build-up, further investigation or as evidence in the case."	PNP

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
PNP Recruitment and Selection Act	The following recommendations aim to improve the recruitment and selection of police officers: - Establish the PNP Recruitment and Selection Service as a separate unit devoted only to the purpose of institutionalizing standard recruitment processing for Police - Patrol Officer, Philippine National Police Academy (PNPA) Cadets, and Lateral Entry for Line and Technical Officers - Establish a one-stop-shop recruitment process for Patrol Officers in every region to prioritize the graduates provinces and remote areas - Establish qualification standards for aircraft/aeronautical engineers, other related aviation professionals, chemists, psychologists/psychometricians, medical technologists, other medical allied professionals, veterinary medicine, and information technology professionals to the rank of Police Lieutenant, and lawyers and aircraft pilots to the rank of Police Captain - Simplification and streamlining of the attestation process	PNP
Final General Amnesty (Amendment of Sec. 43 of RA 10591 or the Comprehensive Firearms and Ammunition Regulation Act)	This Act includes the accounting of loose firearms by pursuing the proper implementation of the Final General Amnesty through a stand-alone amendment of Sec. 43 of RA 10591.	PNP
PNP Local Police Station Infrastructure Program Act	The three components of the PNP Local Police Station Infrastructure Program are as follows: 1. Lot Allocation and Land Acquisition and Titling 2. Establishment of standard infrastructure and basic and support facilities 3. Real estate management and building maintenance and services • The PNP will provide a list of localities without PNP-owned police stations; and • Implementation period: within ten [10] years.	PNP

Results Matrix

Table 14.1.2 presents the indicators and targets within the plan period to ensure peace and security.

Table 14.1.2 Results Matrix: Ensure Peace and Security

	BASELINE	TARGETS							RESPONSIBLE
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
No. of Military Encounters w	/ Internal Arm	ed Groups							
a. No. of Violent Encounters w/ CTGs	7	0	0	0	0	0	0	0	2IDPA-2nd Infantry Division (2ID)
b. No. of Non-Violent Encounters w/ CTGs	245	100	95	90	85	80	75	75	PA-2ID
Improved Living Conditions in									
a. Percentage of Barangay Development Program beneficiary- barangays provided with socioeconomic interventions	TBD	100%	100%	100%	100%	100%	100%	100%	DILG

	BASELINE TARGETS								RESPONSIBLE
INDICATOR	(2021)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
b. Percentage of PAMANA beneficiary communities provided with socioeconomic interventions	TBD	100%	100%	100%	100%	100%	100%	100%	OPAPRU
Sustainable Development Goals (SDG) 16.1.s2 Reduced Ave. Monthly Index Crime Rate"	2.67%	2.62%	2.56%	2.51%	2.46%	2.41%	2.37%	2.37%	PNP
(SDG Indicator) Proportion of families that feel safe walking alone around the area they live after dark	" 8 6 . 5 % [2020]"		Increasing						PSA

Subchapter 14.2 Enhance Administration of Justice

An essential element for a progressive society or community is having a fair administration of justice. Realizing that CALABARZON is home to many industrial establishments or ecozones, genuine trust in the justice system will help increase business confidence, resulting in better socioeconomic development in the area.

Assessment and Challenges

Establishment of a Justice Zone in the region.

Among the achievements of the justice sector in the country is the establishment of the Justice Sector Coordinating Council (JSCC), where the lead agencies and their attached agencies in administering justice, i.e., the Department of Justice (DOJ), DILG, and the Supreme Court (SC), regularly meet to plan, monitor programs, and coordinate cases to guarantee the swift and fair administration of justice. The JSCC has created nine Justice Zones (JZs) as of the end of 2022. CALABARZON is one of the eight regions that already have a JZ. The JZ in the region is in Calamba City.

Moreover, the National Justice Information System, which has been implemented to address case delays, particularly in criminal actions, is also being expanded to include the Single Carpeta System (Inmate Management Information System) and lays the groundwork for a unified penology system.

Fragmentation of criminal justice system remains a challenge. From national to local engagements, the fragmentation of the criminal justice system remains challenging. 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 reintegration to the community must continue to fully streamline the administration of the justice process.

Unmet national targets. Despite the developments over the past years, several policy reforms and key legislations related to the administration of justice remain targets and goals that must be attained. The Philippines failed to meet the 2022 targets in the fundamental rights, civil justice, and criminal justice sub-indicators under the World Justice Project (WJP). It likewise failed to meet the 2021 target in the rule of law index under the Worldwide Governance Indicators (WGI).

Limited resources weaken the justice sector.

The limited resources emanate from the low annual budget of the Judiciary and the Executive branch's justice-related sector agencies, resulting in a shortage of courts, insufficient human resources (HR), and congestion of jails in the region. The occupancy rate of jails in CALABARZON reached 698 percent as of the latest report (2021). 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.

There is a need for digitalized procedures in the justice sector. More than inter-agency coordination, procedures in the justice sector should likewise be automated and digitalized to expedite proceedings and for data accuracy and consistency.

Strategy Framework

The strategy framework in Figure 14.2.1 emphasizes the need for coordinated action to enhance justice administration by increasing case disposition quality and efficiency and improving the plight of PDLs and other vulnerable groups.

Figure 14.2.1 Strategy Framework to Enhance Administration of Justice

ENHANCE ADMINISTRATION OF JUSTICE QUALITY OF LIFE OF PERSONS DEPRIVED ACCESS TO QUALITY FREE OR **QUALITY AND EFFICIENCY IN** OF LIBERYT (PDL) IMPROVED AND AFFORDABLE LEGAL SERVICES BY PRODUCTIVE RE-INTEGRATION OF PDL IN DISPOSITION OF CASES IMPROVED **FILIPINOS IMPROVED** THE COMMUNITY ENSURED Strengthen Coordination Mechanisms to Promote free legal services access Undertake construction and repair of Improve Sector Efficiency & penal facilities Accountability Establish free legal aid public directory and referral system Establish a unified penology and Create a Central Evidence Unit (CEU) to corrections system Store & Handle Evidence in Criminal Cases Expand Justice on Wheels Program Improve Human Resource (HR) Allocation Operationalize the National Preventive Strengthen victim legal protection and Mechanism in the Justice Sector assistance Expand the e-Dalaw system, livelihood Adopt Sectoral Training for All Expand access to non-financial bail and entrepreneurial opportunities for Stakeholders in Commercial Disputes and periodic review of preventive PDL, and multi-disciplinary Advance the Use of Alternative Dispute imprisonment rehabilitation mechanisms Resolution (ADR) Mechanisms at All Levels Identify classes of PDL, who may be qualified for early release, and expand Maximize the Use of Digital Technology & access to parole and probation for Build a Robust, Efficient, & Disastercertain classes of offenses Resilient Information & Communication Technology (ICT) Architecture for the Operationalize the unified referral and Justice Sector monitoring system for former PDL Implement the Integration of the Unified Crime Index Uniformity of Crime Data Streamline the Rules on the Disposition of Specialized & Multi-Party Cases Automate Consumer Complaints Handling Provide Private Sector-led Redress Mechanisms

Strategies

Outcome 1: Quality and efficiency in disposition of cases improved

Strengthen coordination mechanisms to improve sector efficiency and accountability

The National JSCC will launch new JZs nationwide per quarter within the plan period. Meanwhile, existing JZs will expand functions to include monitoring and assessment of their coordination mechanisms, implementation of reporting to the JSCC, and sharing of best practices, especially to LGUs planning to establish their JZs. For CALABARZON, the target is to launch one JZ for each of the other four provinces in the region. The Calamba City JZ will provide advice and recommendations based on their experiences to the other CALABARZON provinces that plan to establish JZs.

Establishing Justice Hubs will also be explored in some LGUs in the region. These will serve as a one-stop venue for criminal justice and will have an infrastructure that houses courts, prosecutors, public attorneys, the police, and a jail with classified housing for surrendered or apprehended drug offenders or other criminals.

The region will support and implement enabling laws and policy schemes to help develop the justice sector. It will also support the JSCC in lobbying for legislation that will increase the budget of the Judiciary and justice-related sector agencies in the Executive branch.

Create a Central Evidence Unit (CEU) to store and handle evidence in criminal cases

This strategy will emanate from the national level and will interlink with regional offices. Relevant justice sector agencies will pursue the establishment of a CEU as a main component of the Justice Hubs, which will serve as the main repository of all evidence in criminal cases, including the storage of electronic evidence. An integrated system handled by sectorrepresentative personnel will be implemented to address the weak evidence processing. This system upgrade will be used for electronic and physical validation and documentation of evidence from various agencies, including law enforcement, prosecution, and the courts. The Human Resource Management and Development that will handle such tools, equipment, and systems will be developed to support the overall justice system upgrade.

Improve human resource allocation in the justice sector

The region will support a JSCC-enabling law that adopts a sector-based approach. This legislation will support the creation of HR positions that cover justice sector actors in both the Judiciary and the Executive Department and will ensure the required prosecutor-to-court and public attorney-to-court ratios. Sectoral HR planning will be strengthened to facilitate the timely and coordinated creation of new positions and appointments and establish new courts and prosecution offices, among others.

Adopt sectoral training for all stakeholders in commercial disputes

The region will adopt the national initiative on the sector-based approach in settling commercial disputes, which include intracorporate cases, intellectual property cases, cases involving admiralty and maritime laws, financial rehabilitation and liquidation of insolvent debtors, competition cases, and cybercrime cases, among others. It will support the conduct of sectoral capacity-building and information exchange activities to facilitate case disposition with the least delay while still providing all relevant information required by the courts that are in the control and custody of various agencies in the Executive Department.

Advance the use of Alternative Dispute Resolution (ADR) mechanisms at all levels

The Office for Alternative Dispute Resolution (OADR) will continue undertaking capacity-building and advocacy programs relative to different ADR mechanisms, including *Katarungang Pambarangay* (KP). Initiatives will also be undertaken to update, harmonize and improve the Philippine legal framework to further develop and promote the use of ADR in the public and private sectors following international standards.

Moreover, the KP will be explored to consider the expansion of its existing jurisdiction, which is currently limited to disputes involving parties that reside within the same city or municipality or in adjoining cities or municipalities. Besides the barangay LGUs, capacitating the PNP officers in ADR mechanisms to resolve conflicts and complaints while still in police stations will be implemented in CALABARZON.

Maximize the use of digital technology and build arobust, efficient, and disaster-resilient ICT architecture for the justice sector

Robust ICT infrastructure will be established within the justice sector in all regions of the country, including CALABARZON, to further support online hearings and case management systems. Moreover, court personnel will be upskilled to handle digitalized services like video conferencing hearings. The CALABARZON justice sector institutions will adopt the national initiative on a simplified system of court-bound and court-issued papers, where templates are publicly available in the e-Court system portal.

Implement the integration of the unified crime index uniformity of crime data

The region will support and implement a unified crime index database in all applicable processes to support the rollout of technology-based case management solutions. All forms or logs that list crimes will follow the exact nomenclature of the index database compliant with the international standard for crime statistics.

Streamline the rules on the disposition of specialized and multiparty cases

CALABARZON has had no special case encountered regarding rules on land disputes. However, this will also be streamlined, mirroring the national initiative and imposing the mandatory consolidation of causes of action relating to the same real property, whether for possession, ownership, or damages. As is done in the national, the rule on expropriation will also be clarified to ensure that courts comply with

issuing partial judgments at the different stages of an expropriation case. The PDP states that the SC will study the need to designate special courts for land dispute settlement in all regions. CALABARZON will support such an initiative.

CALABARZON will implement the initiative from the national level on handling multiparty cases, and special rules of procedure will be crafted. The procedures will be simplified to give access to those who seek redress in mass injury cases, whether through civil or criminal proceedings.

Automate consumer complaints handling

Through its regional and provincial offices, 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 national and subnational government agencies of the Consumer Network.

Provide private sector-led redress mechanisms

Business owners in the region will be encouraged to establish consumer welfare desks or an equivalent customer relations office with assistance from DTI. The welfare desks or offices will provide a mechanism for the speedy resolution of consumer complaints, to provide immediate redress and prevent additional cases for the court.

Outcome 2: Access to quality free or affordable legal services by Filipinos improved

Promote free legal services 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. Under the said rule, law schools are required to establish legal aid clinics and provide accredited law students the opportunity to assist Filipinos who do not have representation in court.

Moreover, the league of lawyers in CALABARZON will be tapped for this strategy as part of their corporate/professional social responsibility. The JZ Committee or the RDC will provide appreciation, recognition, and other

awards or benefits to encourage the practice of the strategy.

A CALABARZON DOJ Action Center will be established simultaneously with other regions. This action center will act on complaints, requests for legal assistance, and queries of walkin clients.

Establish free legal aid public directory and referral system

The Judicial regions, the PAO of DOJ, regional chapters of the Integrated Bar of the Philippines (IBP), and volunteers from CALABARZON law schools and other legal aid clinics will map available legal aid services per locality. Moreover, a database of free legal aid providers will be

available online to ensure that law enforcers and detainees have immediate access.

Expand Justice on Wheels program

The region will support the Justice on Wheels (JOW) program of the SC, which will expand the JOW's scope to address specialized issues like tenurial disputes in agrarian reform and climate and environmental cases. In JOW, buses are used, and their interiors are patterned minimally into a courtroom design. Bringing the courts closer to litigants in local communities in the region will ensure speedy resolution of disputes.

Strengthen victim legal protection and assistance

Access to justice will be 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 the DSWD will be strengthened through their regional offices to address fragmented mechanisms in existing witness protection and victim assistance programs.

At the same time, the CHR CALABARZON Office will intensify its efforts to improve access to justice by (a) empowering the low-income 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.

The Justice Sector Reform Program: Governance in Justice (GOJUST) will continue. The program improves access to justice for Filipinos to contribute to inclusive and sustainable socioeconomic development. It is an international cooperation assistance by the EU to the country. GOJUST specifically aims to develop more responsive and accountable justice services in the country, focusing on the most vulnerable.

Expand access to non-financial bail and periodic review of preventive imprisonment

The national stakeholders will revisit Republic Act No. 10389 or the Recognizance Act of 2012 to expand the application of recognizance. An automated notification system will likewise be implemented and integrated into the e-Court system. This notification system will alert the accused, who are availing of non-financial bail, of approaching court dates.

Nonetheless, the regional/local courts will periodically review all criminal cases involving preventive imprisonment to safeguard the rights of preventively imprisoned persons against unreasonably prolonged detention. The review will be reinforced by automating the computation of time served by the detainee and integrating an alert system in the e-Court system that will prompt the judge on the detainee's release date.

Outcome 3: Quality of life of Person Deprived of Liberty improved, and productive re-integration of PDL in the community ensured

Undertake construction and repair of penal facilities

There is a need to construct new jail facilities. The BJMP Region IV-A, an attached agency of the DILG, will recommend the new jails' locations. The city and municipal LGUs will provide the sites where the new jail facilities will be constructed. This undertaking is to house the inmate population adequately. Construction of new jails and repair of existing facilities will adhere to international standards to guarantee the dignity and health of detainees and support effective rehabilitation and social re-integration of PDLs. Likewise, concerned agencies will adopt the digitalization of jail records for seamless record keeping among the justice sector institutions.

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.

Operationalize the national preventive mechanism

The region will support initiatives to establish a correctional facility environment towards humane PDL rehabilitation and holistic PDL re-integration into society. CALABARZON will support tapping champions in Congress to enact a law that will comply with the UN Convention against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (UN CAT) and its Optional Protocol (OPCAT). The UN CAT and OPCAT require the formation of visiting bodies to prevent torture and other cruel, inhumane, or degrading treatment or punishment, as well as to inspect the treatment and living conditions in detention and penal facilities.

Expand the e-Dalaw system, livelihood and entrepreneurial opportunities for PDL, and multi-disciplinary rehabilitation mechanisms

The e-Dalaw system in CALABARZON will also be expanded to afford unhampered access to justice and enforce social reintegration. Infrastructure to support video conferencing for visitations and hearings will be established to reduce possible risks associated with in-person contacts, such as smuggling prohibited items.

To provide livelihood opportunities for PDL, the DTI will continue its product development and marketing training for those skilled in handiwork. This training will provide PDLs with opportunities to earn their keep for their families. The government will also offer tax or non-monetary incentives and recognition to employers and business establishments that will provide PDLs with capacity-building, livelihood, employment, and entrepreneurial opportunities. It will also conduct a study to determine whether the expungement of criminal records adopted in

other jurisdictions is viable to remove the stigma associated with incarceration.

A law that unifies the holistic reintegration strategy of formerly incarcerated offenders will be enacted, involving a multi-disciplinary program that ensures the successful rehabilitation of convicted offenders. The program will be directed toward improving the offenders' behaviors, skills, mental health, social functioning, and access to education and employment.

BJMP Region IV-A will sustain its activities under its Welfare and Development Program for PDLs, which includes: (a) spiritual services; (b) guidance and counseling; (c) educational services like the ALS; (d) skills training and livelihood program and services; (e) Therapeutic Community Modality Program, and (f) Katatagan, Kalusugan at Damayan ng Komunidad.

Identify classes of PDL, who may be qualified for early release, and expand access to parole and probation for certain classes of offenses

From the national initiative, the Revised Penal Code, the Indeterminate Sentence Law, and the Probation Law will be reviewed and revised to allow convicted offenders to avail of the benefits of said laws. The revision, however, will depend on data from the DOJ on who among the parolees and pardonees are unlikely to be recommitted to prison on account of recidivism. The classes of repeat offenders (recidivist, habitual delinquent, reiteracion, and quasi-recidivist)

will be simplified. Moreover, distinctions in our penal laws concerning heinous, violent, and non-violent offenders, rather than a simplistic penalty-based classification, will be considered.

The region will also support the proposed strengthening and modernization of the Parole and Probation Administration under the DOJ since it is mandated to conserve and redeem convicted offenders and prisoners under the probation or parole system. This proposal will strengthen PDL's holistic rehabilitation and reintegration for peace and social justice.

Operationalize the unified referral and monitoring system for former PDL

The national and sub-national governments will assess post-incarceration outcomes through facilities for psychiatric support and supportive residential housing, such as halfway houses. It will give due consideration to certain classes of offenders. For instance, in drug cases, the rehabilitation program will address underlying substance abuse problems that might lead to reoffending.

Furthermore, the Barangay Anti-Drug Abuse Councils (BADACs) functions in CALABARZON will be expanded to include monitoring former PDLs to assist them in their complete rehabilitation and reintegration into communities.

Legislative Agenda

Table 14.2.1 presents the region's priority legislative agenda to enhance administration of justice.

Table 14.2.1 Legislative Agenda to Enhance Administration of Justice

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
Updating the Philippine legal framework to further develop and promote the use of alternative dispute resolution (ADR) in public and private sectors following international standards	Update, harmonize and improve the ADR Act of 2004 and other relevant law/s, including the integration of world standards such as the 2006 amendment of UNCITRAL Model Law on International Commercial Arbitration and the UN Convention on International Settlement Agreements Resulting from Mediation.	DOJ, OADR
Justice Sector Coordinating Council enabling law	This aims to formally recognize the national JSCCs as a government body with a permanent secretariat, to be charged with institutionalizing coordination mechanisms in the justice sector.	DOJ and DILG as JSCC principals
Justice Sector human resources rationalization	This adopts a sector-based approach to creating positions in the justice sector by matching the creation of courts with corresponding increases in the number of prosecutors, public attorney's positions, etc., and creates more justice sector positions to deal with the workload and case congestion.	DOJ, PAO
Expand Katarungang Pambarangay (KP)	This will reassess exemptions of cases brought before the Lupong Tagapamayapa, particularly concerning residence and thresholds of criminal cases.	DILG
Unified Penology System	This aims to unify all penal institutions under one agency, with close collaboration among courts for the disposition of detention prisoners and convicted offenders.	Bureau of Corrections (BuCor), BJMP, DILG
CHR as the lead agency for the National Preventive Mechanism	This will strengthen the CHR as a National Human Rights Institution, compliant with the requirements of the UN Paris Principles, the UN Convention against Torture, and the Optional Protocol to the Convention Against Torture.	CHR
Unified Re-integration Strategy	This creates a comprehensive and holistic program for the re-integration of PDL post-incarceration, including employment opportunities in the public sector and providing incentives for the private sector that will accept PDL as employees.	DOJ (lead), BJMP (lead), DTI, DOLE, DSWD
Strengthening and modernization of the Parole and Probation Administration	This will strengthen human resource allocation and improve or promote the social, moral, and economic well-being of probation and parole workers to address the disproportionate number of probation and parole officers vis-à-vis the applicants to ensure efficient and effective service delivery.	Parole and Probation Administration

Results Matrix

Table 14.2.2 presents the indicators and targets within the plan period to enhance administration of justice.

Table 14.2.2. Results Matrix: Enhance Administration of Justice

	BASELINE	TARGETS							RESPONSIBLE
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
Case completion period in judicial dockets improved	83%	84%	85%	86%	87%	88%	89%	89%	SC
Percentage of successful prosecution improved (convictions vis-à-vis acquittal)	93%	93%	93%	93%	93%	93%	93%	93%	DOJ
Completion rate of cases handled improved	36%	36%	37%	37%	38%	38%	39%	39%	PAO
Disposition rate for all court levels improved	32%	34%	36%	38%	40%	42%	44%	44%	SC
Percentage of criminal complaints resolved on preliminary investigation improved	91%	91%	91%	91%	91%	91%	91%	91%	DOJ
Clearance rate of all courts improved	91%	93%	95%	97%	99%	101%	103%	103%	SC
Settlement rate of ADR cases by the Katarungang Pambarangay (KP) improved	77%	79%	80%	81%	82%	83%	84%	84%	DILG, OADR
Public attorney-to-court ratio improved	1:02	1:01	1:01	1:01	1:01	1:01	1:01	1:01	PAO
Average congestion rate in j	Average congestion rate in jail facilities reduced								
Male	733%	653%	624%	596%	570%	546%	522%	522%	ВЈМР
Female	733%	693%	668%	645%	621%	598%	577%	577%	ВЈМР

15

Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

CHAPTER 15

Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

Given the tight fiscal space worsened by the COVID-19 pandemic, good governance and bureaucratic and regulatory efficiency will be critical for attaining a prosperous, inclusive, and resilient society. The practice of good governance is essential to foster an enabling environment for social and economic transformation.

This chapter presents the challenges facing good governance and bureaucratic and regulatory efficiency and the key strategies to address them. Interventions will be geared towards deepening participatory governance; bolstering public accountability and integrity; strengthening government functions, systems, and mechanisms; reducing regulatory burdens on businesses and individuals; and supporting competent, motivated, agile, and resilient public servants.

Assessment and Challenges

Assessment

The different levels of government in CALABARZON exhibited improvements in governance in the past six years with the issuance of various policies to improve public service delivery and ensure the government's accountability and transparency.

The recent calamities and pandemic sped up the digitalization of different government transactions and operations. This resulted in the issuance of policies on the government's new work arrangement to sustain public service delivery despite restrictions in face-to-face transactions to protect human lives and the public's health. Despite this, digitalizing government transactions at all levels and strengthening mechanisms to ensure accountability and transparency are

still needed to create an enabling environment fostering the region's production sector.

Citizens' participation in governance enhanced. As required by law, LGUs in the region continued to maintain the representation of CSOs in their local development councils (LDCs). This is monitored through the Seal of Good Local Governance (SGLG) where it is one of its indicators. The DILG provided capacity development activities to strengthen the participation of CSOs in LDCs despite the deferment of SGLG assessment in 2020 and 2021.

Gathering citizens' feedback on government services is essential to measure the responsiveness of public service delivery and to continuously improve the quality of public service. In addition, data on citizens' feedback are beneficial to plan formulation, project development, and implementation. At the local level, the Citizen Satisfaction Index Survey (CSIS) was developed to measure the public service delivery of LGUs based on the citizens' awareness, experience, and perception. As of 2019, all cities and five municipalities in CALABARZON are implementing the CSIS.

Ensuring transparency sustained. Through National Budget Circular No. 542, s. 2012, all government agencies are mandated to maintain a transparency seal on their official websites to enhance transparency and enforce accountability. The transparency seal contains information on the agencies' annual reports, approved budgets and corresponding targets, implementation status of programs and projects and their evaluation or assessment, and procurement activities. In 2020, 59 national government agencies, ten local water districts, and 10 GOCCs in CALABARZON complied with the requirements of the transparency seal as validated by the DBM.

At the local level, all LGUs in CALABARZON have complied with the full disclosure policy since 2016 through online posting and by posting in conspicuous places to inform the public on the use of public funds for local programs, projects, and activities. This compliance was facilitated by implementing the DILG Management System, strong coordination mechanisms with concerned partner agencies and Local Governance Regional Resource Center (LGRRC) members, and regular monitoring of the full disclosure policy indicator in the SGLG.

The issuance of Executive Order No. 02, s. 2016 on Freedom of Information (FOI) Program enhanced the public's access to public records and government contracts and transactions. In

line with this program, an electronic FOI portal was launched in 2016 and remains operational to make the request process more efficient and accessible to the public. Requests made through the portal were automatically sent to agencies concerned for immediate processing. Aside from government agencies, all SUCs, two LGUs, and 25 GOCCs in CALABARZON are participating in the portal.

The CALABARZON region recorded zero findings on cash shortages requiring submission to the Office of the Ombudsman in 2020 and 2021. All auditee government agencies complied with the Commission on Audit (COA) rules and regulations, attributed to the strict monitoring of government agencies' respective auditors and the Commission's role as an enabling partner.

Unmet targets on achieving seamless service delivery. The SGLG was institutionalized in 2019 through Republic Act No. 11292. The number of CALABARZON LGUs conferred with SGLG in 2018 was 35, attaining the set target. However, it declined to 24 in 2019 due to fewer LGU participants. The SGLG is a recognition-based program for LGUs' continuous commitment to improving their performance and public service delivery.

The CALABARZON region remains the most awarded region for the Cities and Municipalities Competitiveness Index (CMCI). It received 22 awards in 2022, including the awards for the innovation pillar, which was introduced in the same year. While CALABARZON remains the most awarded region, the target of annual increase was not met from 2017 to 2022. The highest number of awards was received in 2019 at 25. It declined to 21 in 2020 and further dropped to 18 in 2021. Based on the assessment

of the 2021 performance, more than 70 percent of the CALABARZON LGUs posted declining performance in the government efficiency pillar which assesses the LGU's compliance with national directives, citizens' charter, and capacity to provide basic services.

The proportion of LGUs compliant with the business permits and licensing system (BPLS) standards did not meet the 2022 target of 100 percent. The proportion of compliant LGUs steadily increased from 2018 to 2020 but declined from 95 percent in 2020 to 93 percent in 2021. In addition, not all LGUs in CALABARZON have automated BPLS. The DICT developed an e-BPLS to assist LGUs. However, some needed help in adopting it due to unreliable internet connection despite the presence of ICT facilities in their locality.

The region needed to maintain the compliance of all assessed LGUs on public financial management (PFM) standards. In 2016, all the assessed LGUs complied with the PFM standards but the number declined to 94 percent in 2021. In 2022, DBM developed an enhanced public management assessment tool (PFMAT) to assist the LGUs' annual assessment of their PFM. Before this, the assessment was conducted every three years. Through the tool, the LGUs can regularly identify areas for improvement to enhance their compliance with the set PFM standards.

Thirty-three LGUs in CALABARZON participated in the national rollout of the CBMS in 2022. The technology-based system collects, processes, and validates disaggregated data useful for local planning, program implementation, and impact monitoring while empowering communities to participate in this development process. While financial

assistance can be provided to 5th and 6thclass municipalities, not all LGUs were able to participate due to several requirements to implement the system. Financial resources were needed for the salaries and wages of hired personnel, ICT equipment, training expenses, and other supplies. A strong internet connection should also be ensured.

The PhilSys was also implemented during the pandemic to address the problems encountered government providing assistance, particularly on social protection programs. However, issues were encountered with the printing and delivery of the physical PhilID. As of August 2022, less than 50 percent of the PhilSys registrants in CALABARZON have a printed ID. About 10.5 million individuals in CALABARZON were registered in PhilSys as of September 2022. To address the backlogs and to ensure that the benefits from PhilSys registration are given promptly, the PSA launched the ePhilID, or the digital version of the PhilID, which has the same functionality and validity as the physical ID.

EO 138, s. 2021 implementation supported.

In line with the implementation of the EO, all LGUs in CALABARZON submitted their devolution transition plans (DTP) for identified services, programs, and projects of the implementing agencies. These plans include a capacity-building agenda to ensure that the LGUs can effectively provide the devolved services, programs, and projects. Technical assistance was provided to LGUs to formulate their respective DTPs.

In addition, the Regional Committee on Devolution was created in 2021 to guide the implementation of the EO. Since its creation, quarterly meetings have been conducted to serve as a venue to discuss issues and concerns on full devolution.

Strategy Framework

Figure 15.1 presents the strategies to facilitate good governance and improve bureaucratic and regulatory efficiency. The strategies focus on deepening participatory governance, bolstering public accountability and integrity; reducing regulatory burdens on businesses and individuals; strengthening government functions, systems, and mechanisms; and supporting competent, motivated, agile, and resilient public servants.

Figure 15.1 Strategy Framework to Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency



Strategies

The first two chapter outcomes, namely: participatory governance deepened and public accountability and integrity bolstered, provide strategies for practicing good governance. On the other hand, the strategies for the chapter outcomes on government functions, systems, and mechanisms strengthened; competent,

motivated, agile, and resilient public servants will contribute to supported improved government efficiency. Key strategies to reduce regulatory burdens on businesses and individuals were also identified. These strategies will complement each other and contribute to the outcomes in the other chapters of the RDP.

Outcome 1: Participatory governance deepened

Ensure sufficient and functional participatory spaces

The availability and accessibility of protected various sectors, spaces for particularly marginalized ones, will be enhanced to ensure sufficient and functional participatory spaces. In addition, functionality will be secured through various offline and online platforms while ensuring that these platforms comply with the policy standards. The region will provide proper venues to seek the public's perspectives on the government's processes, including development planning, project development, and implementation.

Through the DILG, the region will continuously monitor the functionality of the local special bodies (LSB) and People's Councils; and promote the enhancement of policy guidelines to make CSO accreditation and local networking more inclusive. The government agencies will ensure that their decision-making bodies have sufficient sectoral representation, particularly from marginalized sectors.

Broaden public access to information

Access to information is critical in empowering the citizen to participate in governance and the government's decision-making to ensure responsiveness of its programs, projects, and activities. The region will continuously promote the implementation of the FOI and encourage other government agencies and instrumentalities, including LGUs, to participate in the eFOI portal to enhance public access to information.

In addition, government agencies are also mandated to post their Citizen's Charter on a bulletin board and upload it on their official websites. A handbook on the Citizen's Charter should be readily available to the public. With the assistance of Anti-Red Tape Authority (ARTA) South Luzon, the region will ensure the compliance of all government agencies, LGUs, GOCCs, and SUCs.

Government agencies and LGUs will also maximize the use of their websites and social media accounts to provide accurate information on their programs and projects, including their operations. These platforms will be continuously improved to ensure that all information is updated and easily accessible to the public.

Vital to these strategies is ensuring the availability of reliable infrastructure facilities and internet connection. See further discussion in Chapter 13.

Improve the quality of participation

Collaborative efforts with CSOs will be promoted and strengthened, particularly in the areas of developing, implementing, and monitoring government programs and projects. In the same manner, collaboration between the government and the CSOs in the RDC will be promoted and expanded to build on the gains from the previous collaborative works.

Given the LGUs' greater role in providing basic services, the LGUs, up to the barangay level, will be capacitated to effectively engage the CSO members in the LSBs in their local planning, implementation of programs and projects, monitoring, and evaluation. Capacity development for CSO members in LSBs will also be strengthened.

Citizen engagement in developing and implementing government policies, programs, and projects will also be encouraged through volunteerism and the creation of local organizations or associations.

Strengthen the Regional Development Council

The RDC's role in development planning, policy formulation, investment programming, and project monitoring and implementation will be strengthened. More collaborative work among its members will be pursued.

A regional forum for LGUs with the local chief executives among participants will be conducted to enhance their appreciation of the importance and linkage of development planning, investment programming, program and project implementation, and monitoring and evaluation. The course for newly elected officials can be enhanced to strengthen the orientation on these topics. These will be beneficial to creating greater partnership between the government agencies and LGUs in the region toward socioeconomic development.

Outcome 2: Public accountability and integrity bolstered

Enhance public feedback loops

The functionality and efficiency of helplines, hotlines, and helpdesks mandated in existing laws will be ensured. The DILG will monitor the functionality of these feedback mechanisms of LGUs, including their CSO and barangay VAWC desks.

The region will continuously promote the establishment of CSIS in all LGUs and enhance government agencies' response and feedback

mechanisms to facilitate efficient use of resources and efficiency in operations. Institutionalizing the CSIS in all LGUs will require adequate budget and technical assistance.

Inaddition, government agencies are mandated to gather client satisfaction feedback for all services offered, both from internal and external clients. The Sectoral Committee on Macroeconomy and Development Administration (SCMDA) and Regional Competitiveness Committee (RCC) will promote the guidelines on the methodology,

content, rating scale and scoring, submission and publication of client satisfaction measurement (CSM) report as provided for in the ARTA Memorandum Circular 2022-05.

Intensify transparency in public spending

Intensifying transparency in public spending will complement the strategy of broadening the public's access to information to enhance public accountability and trust. The EODB and Efficient Government Service Delivery (EGSD) Act will be fully implemented to achieve this. Compliance of government agencies and LGUs to the modernized Philippine Government Electronic Procurement System will also be ensured. Timely publication of financial accountability reports through the Transparency Seal will be monitored.

The COA adopted and institutionalized the Citizen Participatory Audit (CPA) by issuing COA Resolution No. 2018-006. CPA is a mechanism to collectively respond to questions regarding public funds' efficient and effective use. It was crafted on the premise that public accountability can prosper only with the involvement of vigilant citizens. The CSOs are actively involved in preparing the CPA Plan, wherein the areas of partnership in auditing are determined. Citizens may also use the electronic Citizen's Desk to submit audit concerns that COA should address. While CPA is beneficial in ensuring public accountability, most projects that have undergone this audit were focused in the NCR. The region will encourage the COA Project Management Office (COA-PMO) to assess the possibility of expanding the use of CPA for major projects in the region. Studies on the CPA may be conducted

to identify the appropriate recommendations and policy strategies for expanding the CPA implementation.

With the rollout of e-PFMAT in 2022, LGUs' electronic system implementation will be assessed. The DBM Region IV-A will provide guidance and capacity-building activities to improve the LGUs' PFM.

Strengthen implementation and monitoring of anti-corruption laws and programs

Implementing, monitoring, and evaluating anti-corruption programs and laws such as the Anti-Red Tape Act and EODB-EGSD Act will be strengthened. Public integrity campaigns and observance of the code of conduct for all government employees will be intensified. Citizens will also be engaged in anti-corruption drives by providing them with enough information on feedback mechanisms through which they can report corruption or illegal activities.

Government agencies are also mandated to establish their Committee on Anti-Red Tape (CART) to ensure compliance with the EODB-EGSD Act and other ARTA issuances on anticorruption programs and policies. The Report Card Survey (RCS) 2.0 will be implemented to ensure quality, efficient, and adequate government services free of red tape. This will also serve as a basis for granting awards, recognition, and incentives to government agencies.

Outcome 3: Government functions, systems, and mechanisms strengthened

Support the whole-of-government approach in re-engineering systems and procedures

The government's plan to implement structural and procedural reforms to optimize its functions and ensure efficient implementation of public services will be supported. Along with this reform, the reengineering of LGU systems and procedures in compliance with the EODB-EGSD Act will be pursued.

The ARTA Southern Luzon will provide technical assistance and will conduct training on Regulatory Impact Assessment (RIA) for government agencies to streamline their processes properly. All government agencies and offices providing services must regularly undergo cost compliance analysis, time and motion studies, and evaluation and improvement of their transaction systems. It will facilitate the elimination of redundant, duplicative, and overlapping regulations. The use of the whole-of-government reengineering manual developed by ARTA will be promoted.

While building the capacity in the conduct of RIA, government agencies will adopt the Zero Backlog Program (ZBP), which is beneficial in reviewing processes resulting in proper streamlining and reengineering.

Accelerate digital transformation in government

The recent calamities and pandemic emphasized the importance of digital technologies in government for unhampered service delivery. Further, digitalizing government processes and transactions will improve efficiency and support anti-corruption interventions. The region will adopt paperless, cashless, and data-empowered transactions and develop civil service capacity for implementation. To support this strategy, the region will implement policies and programs for digital payments for government disbursements and collections and the DICT E-Government Masterplan. The integrity of internet connection in the region will also be enhanced to ensure that all government offices, including island municipalities and far-flung areas, can adopt digital technologies for their operations (see Chapter 13).

The crafting of auditing policies or guidelines on digital transactions, particularly at the local level, will be promoted. At the height of the pandemic, the LGUs utilized numerous digital platforms to disburse financial assistance and payment for availed products and services. However, some LGUs encountered problems in auditing due to the absence of a clear policy on digital payments. With the implementation of the SIM Registration Act, a mechanism to regulate the use of digital platforms such as GCash, Maya, Smart Padala, etc., for LGU payments and money transfers can now be assessed.

In addition, an information campaign on PhilSys will be conducted, and expediting the issuance of PhilID will be encouraged. For the meantime, the use of ePhilID will be promoted in the region for registrants to enjoy the benefits. With PhilSys, the mode of service delivery will be transformed, resulting in wider access to government services while promoting the ease of doing business.

Recognizing the importance of data on planning, project development, implementation, and monitoring, the LGUs in CALABARZON will be encouraged to implement the CBMS. The Regional Statistics Committee and the Provincial Statistics Committee will serve as an avenue to discuss and resolve the LGUs' problems in implementing the CBMS. Establishing a local statistics committee among LGUs in the region will also be encouraged.

Raise the productivity performance of agencies

Capacity development programs and incentive structures aligned with the productivity performance framework will be continuously implemented. Likewise, the implementation of results-based performance management system standards will be strengthened. Results of the client satisfaction surveys will be beneficial to implement appropriate adjustments and strategies to improve productivity performance. ISO Certification of all government offices in the region will be promoted.

Support the full devolution of functions, services, and facilities

Implementation of the LGUs' capacity development agenda in line with the full devolution will be pursued by engaging the members of the LGRRC – Multi-Sectoral Advisory Committee (MSAC) and the Local Government Academy (LGA). The LGRRC serves as a dynamic center of learning, a multi-media program for knowledge-sharing on local government, and as a complementary strategy in developing the LGU capacities.

A mechanism for LGUs to raise issues and concerns on implementing their devolution transition plans will be created. Coordination between government agencies and LGUs will be strengthened through the Regional Committee on Devolution to discuss and resolve issues on implementing full devolution. This collaboration will also ensure harmonization of the devolved services, programs, and projects between government agencies and LGUs, including the conduct of committee meetings and regional forums.

Outcome 4: Burden of regulation on businesses and individuals reduced

Expedite efforts to automate and streamline processes for business, registration, renewal, closure, and pivot

One hundred percent compliance of LGUs to BPLS standards and automation of all BPLS will be pursued. The integrated BPLS of DICT will be promoted particularly for LGUs with limited capacity to hire consultancy services to develop their own automated BPLS. In addition, LGUs will be encouraged to locate

the local government offices and departments with regulatory functions over businesses in strategic areas to facilitate efficient transactions. Government offices that are adjacent to each other will be preferred. All LGUs in the region will be encouraged to establish an eBOSS. The implementation of the eBOSS in all LGUs will be monitored through the efforts of DILG, DICT, and ARTA.

Participation of all LGUs in the annual CMCI will be maintained. Continuous improvement in

their annual ranking will be pursued. The DTI Region IV-A, in collaboration with the members of the Regional Competitiveness Committee (RCC) and Provincial Competitiveness Committees, will provide capacity-building activities to LGUs to enhance their annual CMCI. Overall index on the governance and innovation pillars will be one of the main focus of performance monitoring.

The National Policy on Regulatory Management System (NPRMS) will be adopted as a common framework for good regulatory practice. In addition, the LGUs will be capacitated on implementing the system through the collaborative efforts of DILG and ARTA.

Expand access to broadband internet and digital technologies to enhance consumer choice and facilitate innovation

The integrity of the internet connection in the region will be enhanced to ensure reliable connection for all people, including those residing in island municipalities and far-flung areas (see Chapter 13). Capacity-building programs on e-commerce will be continued for MSMEs, while cooperatives will also be capacitated and encouraged to adopt digital technologies in their operations.

Increase awareness and understanding of the National Competition Policy

The advocacy on the National Competition Law and other related policies will be strengthened to enhance the public and private sector's understanding and appreciation of the importance of market competition. The RCC and Provincial Competitiveness Committees can spearhead the promotion and discussion regarding competition-related policies.

Outcome 5: Competent, motivated, agile, and resilient public servants supported

Guarantee complete and capable human resources management in government

Smart and future-ready public servants will be developed. Competent human resource is essential in providing quality services to the public. As such, qualification standards in hiring will be upheld, and the capacity of government personnel will be developed following a career improvement plan, including training on emerging trends and technologies to make them future-ready.

Competency-based recruitment will continuously implemented. It ensures clean, honest, efficient, and professional service. This will eliminate citizens' doubts on the credibility and competence of public institutions. Accreditation of government offices on the Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM) of the CSC will be pursued. PRIME-HRM is a mechanism to continuously capacitate agencies in performing their human resource management (HRM) functions, recognize best practices in the various areas of HRM, and serve as a venue for the exchange and development of HRM expertise in the country's public service. With excellent HRM, government offices can effectively deliver quality service to the public.

Legislating the creation of HR management offices in LGUs will also be pursued. A review of the personal services limitation in the Local Government Code will be initiated in line with the human resource requirement of LGUs on implementing full devolution.

In addition, public service values will be promoted. All civil servants will adhere to values such as professionalism, excellence, integrity, and non-discrimination in public service by raising awareness of civil service values and norms among all government personnel and strictly implementing anti-corruption laws and provisions under EODB.

Promote conducive working environments

Conducive working environments promote motivated and productive civil servants even in challenging scenarios. To support this, the region will continuously implement policies on alternative working arrangements in the public sector. Resources, including ICT tools, will be provided appropriately to strengthen civil servants' capabilities during remote functions. Initiatives on occupational health and safety and mental wellness programs will be promoted.

Legislative Agenda

Table 15.1 presents the region's priority legislative agenda to practice good governance and improve bureaucratic and regulatory efficiency.

Table 15.1 Legislative Agenda to Practice Good Governance and Improve Bureaucratic and Regulatory **Efficiency**

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY
E-Governance Act	The act will promote the use of information and communications technology in improving government service delivery and providing access to reliable data and information.	DICT Region IV-A
Budget Modernization Bill	The bill will institutionalize public financial management reforms and include public participation in the budget process.	DBM Region IV-A
National Evaluation Policy	This policy seeks to advance the culture and practice of evaluation in the public sector by strengthening legal and institutional frameworks for the regular measurement, reporting, and utilization of the results of public policies, programs, and projects toward supporting evidence-based decisions. It will also promote transparency and accountability.	NEDA Region IV-A
Freedom of Information	The bill will require government agencies to allow the public to review and copy all official information and promote meaningful and increased participation in government decision-making and public accountability.	Philippine Information Agency (PIA) Region IV-A
Creation of HRM Offices in LGUs	The bill aims to establish HRM Offices and mandate regular HRM officers in LGUs to develop competent and credible employees at the local level.	Civil Service Commission (CSC) Region IV-A

Results Matrix

Table 15.2 presents the indicators and targets within the plan period to practice good governance and improve bureaucratic and regulatory efficiency

Table 15.2 Results Matrix: Practice Good Governance and Improve Bureaucratic and Regulatory Efficiency

	BASELINE	TARGETS							RESPONSIBLE
INDICATOR	(Year)	2023	2024	2025	2026	2027	2028	EOP	AGENCY
Proportion of assessed LGUs compliant to Public Financial Management (PFM) standards	"94% (2021)"	Increasing				100%	100%	DBM	
Percentages of COA findings with cash shortages forwarded to the Office of the Ombudsman	"0% (2021)"	93%	93%	93%	93%	93%	0%	0%	COA
Proportion of LGUs compliant to BPLS standards	"93% [2021]"	Increasing				100%	100%	DILG	



Accelerate Climate Action and Strengthen Disaster Resilience

Accelerate Climate Action and Strengthen Disaster Resilience

The region will support human, ecosystem, and planetary health for a climate-resilient CALABARZON, consistent with the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. In addition, the region will pursue efforts to increase climate and disaster risk resilience of communities and institutions, enhance the resilience of ecosystems, enable low carbon economy transition, and improve governance and intersectionality of climate change and natural hazard resilience.

A 'whole-of-society' approach will be adopted to implement the strategies in this chapter. The region will work closely with the private sector and civil society organizations to promote collaboration and a holistic approach toward achieving an inclusive, resilient, and low-carbon economy.

Assessment and Challenges

Assessment

The highest temperature recorded CALABARZON was 38.8°C in Ambulong, Tanauan City, Batangas Synoptic Weather Station in 2021. Meanwhile, the Alabat, Quezon Synoptic Weather Station recorded the highest rainfall in 2021 at 673 mm. The region experiences an annual onslaught of typhoons. Recently, Severe Tropical Storm (STS) Paeng affected 329,423 families in the region. The storm left 34 casualties, 23,000 damaged houses, and PHP1,701 million, PHP1,184 million, and PHP1,221 million worth of damages to agricultural crops, national infrastructure, and local infrastructure, respectively^[1].

Declared Minahang Bayan monitored, and an additional potential area assessed. Pursuant to the People's Small-scale Mining Act of 1991, Minahang Bayan (MB) refers to the people's small-scale mining area. As of 2022, the DENR-Mines and Geosciences Bureau (MGB) has identified one MB in Buenavista,

Quezon, and approved 47 tenements with a total area of 70,146.78 ha. DENR-MGB Region IV-A inspected the status of the small-scale mining activities and their compliance within the MB. It also assessed whether Brgy. Puray in Rodriguez, Rizal is suitable for declaration as an MB area.

Adaptive capacities and resilience of communities and ecosystems increased. From 2016 to 2022, several policies and plans were adopted to ensure climate action and strengthen disaster resilience. The Local Disaster Risk Reduction and Management Plans (LDRRMP) of the provinces, cities, and municipalities were reviewed and certified by the RDRRMC as aligned with the National DRRM Plan 2020-2030.

The Regional Contingency Plan for Taal Volcano Eruption, the substitute for Disaster Preparedness Manual, was approved on December 1, 2022 by the RDRRMC. It serves as the guidepost for all preparedness and response

operations related to Taal Volcano eruption. The CALABARZON Rehabilitation and Recovery Programs (RRPs) on Taal Volcano Eruption and Tropical Cyclones Quinta, Rolly, and Ulysses, as well as the CALABARZON Regional Recovery Program for COVID-19, were formulated in 2020 and 2021, respectively. The RRPs provided strategic interventions for the rehabilitation and recovery of affected communities. It identified key programs, projects, and activities needed to restore damaged properties, improve the livelihood of affected people, and further increase the resilience of the communities.

CALABARZON LGUs integrated the national and regional climate and disaster risk resiliency plans in their Local Climate Change Action Plans (LCCAPs) and LDRRMPs. Since 2016, more LGUs have prepared and updated their LCCAPs. A total of 122 LCCAPs were prepared and updated in 2021 compared to the 92 LCCAPs in 2016. Sixteen CLUPs were approved or updated in 2021 and 2022 to ensure that these are climate change and disaster risk reduction responsive. The number of reviewed LDRRMPs increased from 76 in 2020 to 89 in 2021. Meanwhile, out of the 110 Comprehensive Development Plans assessed, 22 are riskinformed, 67 are partially risk-informed, and 21 are not risk-informed. The capacity-building activities offered by different agencies on plan formulation and updating contributed to the increasing number of updated local plans. These plans provided processes and guidelines to the respective LGUs in addressing climate change and the main priority areas in disaster risk reduction and management.

Disaster preparedness in the region improved. In compliance with the Philippine DRRM Act of 2010, all LGUs (provinces, cities, and

municipalities) in CALABARZON have a fully operational DRRM Office as of 2019. Moreover, the number of trained individuals on DRRM increased to 1,463 in 2021 from 714 in 2018. The LGUs with EWS also increased to 133 in 2021 from 108 in 2018. The increase in the number of trained personnel and EWS improved the preparedness and response capability of the region during disasters. The organization of the DRRM Planning and Plan Review Team in Quezon and the Executive Order passed in the Province of Laguna contributed to these accomplishments and to the achievement of targets.

In addition, the OCD Region IV-A, in coordination with DPWH Region IV-A, has 18 completed and eight ongoing evacuation centers. On the other hand, DHSUD constructed three evacuation centers in Batangas Province through its Building Adequate, Livable, Affordable, and Inclusive assistance program. The region has 2,112 temporary operational evacuation centers sponsored by DSWD.

Forest cover and watershed improved, and forestland under effective management restored. The forest cover and area planted with mangroves increased in 2017 and 2018 compared to the baseline data in 2016. Moreover, the 7,381 ha of the National Greening Program and 1,086 ha of mangrove plantation in 2020 were maintained and protected despite mobility restrictions due to the implementation community quarantine during COVID-19 pandemic. The region's forest cover increased by 0.39 percent due to the intensive enhancement program of graduated sites. All terrestrial protected areas were also effectively and equitably managed with the support of the

Protected Area Management Board, LGUs, and other stakeholders.

Contribution to fulfilling **Nationally** Determined Contribution (NDC) continued. The region will work towards fulfilling the NDC to reduce the greenhouse gas (GHG) emissions of the country by 75 percent from the businessas-usual prediction of 3,340.3 MtCO2e (United Nations Framework Convention on Climate Change 2021).

Challenges

Gap in knowledge and skills transfer. There is still a disconnect in the knowledge and skills transfer on climate change adaptation and disaster risk reduction from the academe and private sector to the regional stakeholders.

Increased losses and damages due to disasters.

The losses and damages due to climate change impacts are classified into two: economic (business operations, agricultural production, tourism, infrastructure, property) and noneconomic (human, society, and environment systems). These losses cover a wider spectrum affects Philippine development. Strengthening climate change adaptation and disaster risk resilience of communities is pivotal

in preventing or minimizing potential damage to livelihood and agricultural commodities and the destruction of infrastructures.

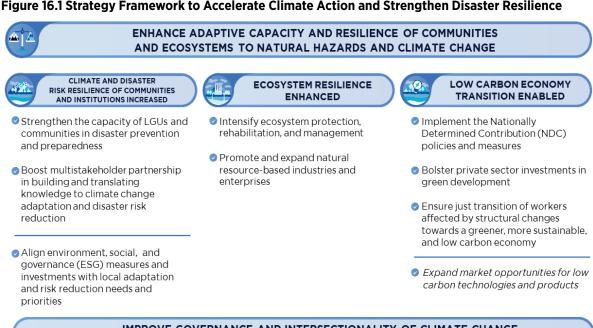
Inadequate data on forestlands and mangrove areas. The insufficient data on planning and monitoring of forestlands, wetlands, and mangrove areas also hinders the government and development partners from evaluating initiatives and interventions to increase plantation and determine planting sites. Thus, employing the latest technologies in mapping and geo-tagging sites is necessary to formulate site-specific policies and programs.

Dependence on fossil fuel. The region has limited alternative sources of energy and is highly dependent on fossil fuels. Renewable energypowered small and medium enterprises, large industries, and government institutions could significantly decrease the region's dependency on fossil fuels.

Strategy Framework

The primary outcome for the sector is to enhance the adaptive capacity and resilience of communities and ecosystems to natural hazards and climate change. To support this, the strategic framework will focus on a) increasing climate and natural hazard resilience actions of communities and institutions, b) enhancing ecosystem resilience, and c) enabling low carbon economy transition. In addition, the improvement of governance and intersectionality of climate change and natural hazard resilience will also be pursued. Nature-based solutions will be adopted to effectively and efficiently deliver the identified strategies and actions.

Figure 16.1 Strategy Framework to Accelerate Climate Action and Strengthen Disaster Resilience



IMPROVE GOVERNANCE AND INTERSECTIONALITY OF CLIMATE CHANGE AND NATURAL HAZARD RESILIENCE

Strategies

Outcome 1: Increase climate and disaster risk resilience of communities and institutions

The SC ruling on the Mandanas-Garcia petition led to the devolution of certain national government functions to LGUs. Thus, increasing the capability and knowledge of LGUs and communities will be among the region's primary strategies for building resilience. The change in local chief executives should not hinder the implementation of the LGUs' priority policies, programs, and projects in CCA and DRR.

The region will also foster relationships with the private sector for climate investments. Complete understanding and awareness of investment risks and vulnerability could open more investments to increase disaster resiliency and employment opportunity for stakeholders.

Strengthen the capacity of LGUs and communities in disaster prevention and preparedness

CALABARZON LGUs will be further equipped in disaster prevention and preparedness through capacity-building programs and plan formulation. Training the LGUs in public health emergencies and climate and disaster risk parameters will lead to better decision-making and management.

LGUs must also update their LCCAP and LDRRMP to address multidimensional natural hazard events by enhancing the government's capacity. In general, existing monitoring mechanisms for Climate Change Adaptation and Mitigation (CCAM) and DRRM expenditures must also be strengthened and harmonized at regional and local levels. The DBM, Climate

Change Commission, OCD, and LGUs must prioritize and institutionalize the climate budget tagging to cover actual expenditures.

The People Survival Fund will finance the adaptation projects at the local level to build the resiliency of communities and ecosystem to climate change impacts and to ensure sustainable and climate-resilient communities. Orientation sessions and information dissemination on PSF will be initiated to further encourage the LGUs to utilize the fund. At the same time, the capability building exercise on the preparation of necessary documentary requirements will ensure approval of the LGUs' proposals.

The Laguna province will develop and establish a multi-hazard EWS and provide a province-wide disaster response system for disaster prevention. Moreover, the province will laymanize IEC materials on various hazards and update its plans, policies, and ordinances, including the Reforestation and Regreening Plan for disaster preparedness. Moreover, the province will also conduct a Training of Trainers for the climate change livelihood program.

Boost multi-stakeholder partnership in building and translating knowledge to climate change adaptation and disaster risk reduction

Fostering multi-stakeholder partnerships among RLAs, LGUs, the private sector, partner NGAs, and academic institutions will enhance CCA/DRR management. It will also address the gap in the knowledge transfer on climate change

adaptation and disaster risk reduction from the academe and private sector to the regional stakeholders. Protecting the environment requires strict implementation of environmental laws and regulations. Hence, strong support and cooperation of stakeholders are vital to ensure the protection of critical biodiversity areas while improving the socioeconomic condition of resource-dependent communities.

Collaborative activities related to this strategy will be pursued as follows: (a) tapping private sector and academe with expertise in conducting and formulating vulnerability and risk assessments (incorporating public health); (b) setting up of CCA and DRR databases and information systems; (c) capacitating LGUs in developing, implementing, and monitoring relevant plans and policies; (d) ensuring the functionality of early warning and communication systems; and (e) promoting and enhancing the integration of CC/DRR in the education system.

DOST Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) will implement several programs and projects concerning disaster preparedness in the region, including (1) Operation and Maintenance of a Weather Surveillance Radar Network, (2) Construction/Repair/Rehabilitation of Damaged Weather Stations and ICT Equipment and Facilities, (3) Installation of High-Frequency Radars at Coastal Areas, (4) Establishment of X-Band Radar Rain Gauge Systems, (5) Radar Network Observation and Archiving Development in Support to Enhancement of Rainfall Warning Services, and (6) Radar Network Observation and Archiving

Development in support to Enhancement of Rainfall Warning Services for Radar Observation. These programs and projects will cover DRRM and provide employment opportunities to stakeholders.

For disaster response and early recovery, the Philippine Amusement and Gaming Corporation, in partnership with OCD Region IV-A, will construct 11 multipurpose evacuation centers (MPEC) in the provinces of Cavite, Laguna, Batangas, and Quezon. Each MPEC has a budget of PHP50 million (OCD Region IV-A).

The DepEd, in partnership with LGUs, will also integrate DRR, climate change, and peace in the curriculum to protect learners from death, injury, and harm brought about by natural and human-induced hazards (Chapter 4.2, Improved Education and Lifelong Learning).

Align ESG measures and investments with local adaptation and risk reduction needs and priorities

The government will partner with the private sector to align ESG measures and investments with local CCA and DRR needs and priorities. CALABARZON RDC's Special Regional Committee on Sustainable Development Goals will also coordinate and review policy, programs, projects, and activities to align regional efforts with the efforts at the national level.

Outcome 2: Enhance ecosystem resilience

Intensify ecosystem protection, rehabilitation, and management

The ridge-to-reef approach will attain ecosystem protection, rehabilitation, and management. The approach uses scientific tools, processes, and techniques to promote the interconnectivity of ecological processes and functions for better management solutions. It is also an integrated and ecosystem-based approach that encompasses the following areas of concern: (a) sustainable land management; (b) integrated water resources management; (c) integrated coastal and marine management; (d) climatesmart agriculture and agroforestry; (e) green and blue infrastructures; and (f) protected area. The CALABARZON Regional Land Use Committee (RLUC) will promote this approach in the five provinces' Provincial Development & Physical Framework Plan (PDPFP) and other local plans and policies to address land and water degradation.

The region has two river basins with existing masterplans. In 2015, the RDC Region IV-A endorsed the Marikina River Basin Master Plan to the DENR through RDC Resolution No. IV-A-35-2015. Meanwhile, through RDC Resolution No. IV-A-153-2019, the Climate Change-Responsive Integrated River Basin Master Plan of Cluster 2 River Basins (Malaking Ilog and Iyam-Dumacaa) of the DENR was adopted. Using the ridge-to-reef approach, these Masterplans serve as guides in ecosystem protection, rehabilitation, and management.

Meanwhile, the Province of Batangas will update or draft its municipal/city Forest Land Use Plans, formulate and monitor environmental and natural resources policies, plans, programs, and projects, and conduct capacity development activities.

Promote and expand natural resourcebased industries and enterprises

The government will pursue enabling policies that will provide more livelihood and economic opportunities, including investments in activities that foster the sustainable management of natural resources, particularly for the low-income and vulnerable upland and coastal communities. Collaboration among the government, private sector, academe, CSOs, and representatives from marginalized sectors (women, youth, and indigenous peoples) will ensure sustainable production and consumption. It will also accelerate rehabilitation, promote conservation efforts, and strengthen the enforcement of environmental rules and regulations.

The Province of Laguna will have an alternative livelihood program for residents living adjacent to and within small watershed areas or communal forests. Meanwhile, the Province of Quezon will conduct a livelihood program for forest-dependent households and will prepare its Tourism Development Program to develop its tourism sites, services, and products.

The government and the private sector will also identify, develop, and promote more biodiversity-friendly enterprises and ecotourism sites within and outside the protected areas while adhering to environmental laws and regulations. Effective management of the protected areas and ecotourism sites will entail assessment of carrying capacity to prevent damage and unwanted activities within the area in coordination with the Protected Area Management Board

(PAMB) and its PAM Offices. It also requires the formulation of tourism development plans in key biodiversity areas. Moreover, nature-based industries and enterprises supporting the green and blue economy will be expanded to boost the eco-tourism industry and generate green jobs in the region.

DENR, in collaboration with other stakeholders, will establish market-based mechanisms supporting natural resources conservation

measures such as payment for ecosystem services (PES) and accelerating ecosystem and habitat rehabilitation and restoration. The collaboration will entail increased compliance with mandatory regulations, adoption of flexible methods to offset and compensate for the ecological and social impacts of operations and production, and improvement of social and environmental standards to fulfill corporate responsibility.

Outcome 3: Enable low carbon economy transition

The region will focus on transitioning to a low-carbon economy. Following the building blocks of a low-carbon society from the Asian Development Bank (2015), the region aims to increase the rate of economic growth faster than the growth of carbon emissions, provide activities that deliver several benefits to stakeholders, and promote the use of renewable resources to provide low cost, yet low carbon benefits to all.

Implement the NDC policies and measures

CALABARZON ranks second to NCR in emission inventory, with most emissions coming from mobile sources (cars, motorcycles, trucks, vehicles, etc.). The region will implement the NDC policies and measures through the adaptation measures per sector as presented in CALABARZON LGUs' LCCAP. Implementing energy efficiency and conservation measures in industries, government institutions, and households, aligned with the Energy Efficiency and Conservation Act, will lessen the electricity demand and consumption. Energy conservation and its efficient utilization will also minimize the negative environmental impacts due to

the decreasing GHG emissions from powergenerating companies.

The region will support the USAID ESP: CALABARZON Regional Energy Advancement Think-Tank Ecosystem project in their Energy Knowledge Hub. The project plans to set regional and provincial targets based on the National Climate Change Action Plan (NCCAP) and the NDCs.

In support of the NREP of the DOE, the region will also invest in clean energy and innovation through investment-friendly policies toward a more resilient and competitive energy sector (see Chapter 13, Expand Upgrade Infrastructure).

The DOST Region IV-A will continue to support academe and research institutions that may request funding aid or grants through the Niche Centers in the Regions for R&D Program to monitor and assess NDC specific to the region. The R&D study, upon completion, may be institutionalized and used by agencies at the local or national levels.

Bolster private sector investments in green development

The government will foster an enabling policy environment to leverage private sector investments in green technologies and circular business models that will further generate green jobs. This includes exploring the feasibility of adopting carbon pricing instruments (CPI) at the national level and cascading and institutionalizing it at the sub-national level. In addition, DENR will identify areas for carbon offsetting and provide support in identifying and implementing policies and activities to reduce deforestation and forest degradation emissions, and rehabilitate the marine ecosystem.

The promotion of resource-efficient and cleaner production, particularly in the energy, transport, and industry sectors, will be supported by the full implementation of incentive mechanisms under existing laws, such as the Renewable Energy Act, Energy Efficiency and Conservation Act, Electric Vehicle Industry Development Act, Organic Agriculture Law, and Green Jobs Act.

The agreement between the Philippines and the Global Green Growth Institute, known as Green Climate Fund (GCF) Readiness Program, signed in 2022, will prepare the government financial institutions and agencies to tap the GCF for project financing. Moreover, with the approval of the Sustainable Finance Framework, funding for green technologies and businesses will be made more available and accessible as banks must include environmental and social risk in their strategic objectives and operations by 2023.

Ensure just transition of workers affected by the structural change towards a greener, more sustainable, and low-carbon economy

The updating of the National Green Jobs Human Resource Development Plan (NGJ HRD) 2019-2022 must be prioritized at the national level to assess the country's accomplishments and recent initiatives in addressing the challenges stated in the NGJ HRD 2019-2022 and to capture the current challenges in shifting to a green economy. The region also aims to create more green jobs by fostering green opportunities in the industry sector. Local industries' green technology and products will open more employment opportunities. DOLE Region IV-A will lead the implementation of the Green Jobs Human Resource Development Plan (GJ HRDP) to mainstream green jobs, including creating a centralized database of green jobs (See Chapter 6, Increase Incomeearning Ability). The GJ HRDP incorporates the Just Transition guidelines of the International Labor Organization, which maximizes climate action's social and economic opportunities while managing joblessness and poverty among all sectors.

IEC activities will also be conducted for the RLAs, academic institutions, LGUs, private sector, and other stakeholders on key areas for consideration to ensure a just transition and to manage structural change towards a greener, more sustainable, and low-carbon economy. TESDA Region IV-A will provide training, curricula, and courses in the region to increase the core competencies of stakeholders and eventually increase their income-earning capabilities (See Chapter 6, Increase Incomeearning Ability).

Expand market opportunities for low-carbon technologies and products

The CALABARZON region's huge potential for tourism will be maximized through the #DiscoverCALABARZON plan of the DOT Region IV-A. The program will be launched with the green corridor initiative in linking tourist-ready destinations in all provinces of the region (See Chapter 9, Reinvigorate Services). The region's local products will be improved and strengthened with the help of DOT Region IV-A.

In addition, the collaboration among DPWH Region IV-A, DOTr, and DOT Region IV-A will ensure the enhancement of the road network to optimize routing and to minimize the shipping cost and emissions of carbon dioxide and carbon monoxide (Chapter 9, Reinvigorate Services). Moreover, the region will adopt inter-modal transportation as a major design and consideration in the transport systems to enhance connectivity, encourage non—motorized transportation, and improve environmental conditions (See Chapter 13, Expand Upgrade Infrastructure).

Outcome 4: Improve governance and intersectionality of climate change and natural hazard resilience

Improving existing governance structures is important to address the climate and disaster vulnerability of the priority sectors such as agriculture, water, energy, transportation, and urban-rural linkages. To improve governance structures, the region will promote the enhancement of the regional and local DRRM plans and the LCCAP. Moreover, the RDC will continue endorsing, supporting, and adopting watershed management plans.

DENR Region IV-A will lead the improvement of the climate and risk data information management system, including geospatial data. The academe, private sector, and LGUs will facilitate the collection of timely, updated, and useful data. The LGUs will be trained and equipped to analyze and interpret the collected data and will be trained and informed on ways to access disaster risk financing and insurance.

The adverse effects of climate change impact settlements and economic areas causing displacement of affected populations, migration, and relocation. To address these impacts and to further improve the capacities of the LGUs in dealing with climate-induced mobility, Commission on Population and Development will conduct orientation session and workshops on human mobility in the context of climate change.

The region will also follow the Roadmap to Institutionalize Natural Capital Accounting (NCA) in the Philippines, which provides guidance the strategic on national implementation of NCA from 2022 to 2040. The NCA will provide detailed information on natural resources in the region to ensure efficient natural resource management. It will also enable rural areas' income and employment generation capacity and allow the creation of PES schemes. The NCA will address data gaps on forestlands, wetlands, and mangrove areas to improve interventions for ecosystem resilience.

Legislative Agenda

Table 16.1 presents the region's priority legislative agenda to accelerate climate action and strengthen disaster resilience.

Table 16.1 Legislative Agenda to Accelerate Climate Action and Strengthen Disaster Resilience

LEGISLATIVE AGENDA	RATIONALE/ KEY FEATURES	RESPONSIBLE AGENCY	
Delineation of Specific Forest Limits Act	This bill intends to delineate the specific limits of forestlands for conserving, protecting, and developing the country's forest resources. Identifying the permanent boundary of forestlands will facilitate the determination of priority areas for protection, production, and utilization. This will also provide an enabling policy for securing tenure for vulnerable forest-dependent communities.	DENR	
Sustainable Forest Management	This bill aims to enhance forest ecosystems through reforestation and rehabilitation to mitigate climate change, improve and conserve biodiversity, enhance ecosystem functions and services, and provide long-term economic benefits.	DENR	
Land Administration Reform Act	This bill aims to upgrade, systematize, and integrate the country's administration, management, and operations of land resources. It also aims to improve, rationalize, and systematize land records, titling, documentation, and information systems into an open, updated, and reliable system. Land security enhances people's capacity to effectively manage their land resources and implement measures to adapt to climate change impacts.	DENR	
Integrated Coastal Management (ICM) Act	This bill aims to institutionalize ICM as a national strategy to ensure the holistic and sustainable management of various ecosystems and natural resources through the "ridge-to-reef" approach. In addition, the bill pursues the development of an ICM Framework as a guide for LGUs in building the resiliency of coastal communities to climate change and other hazards.	DENR	
Natural Capital Accounting (NCA) Act	This bill aims to enable greater stakeholder engagement and sustain budgetary support for implementing NCA activities at the national and sub-national levels. The institutionalization of the NCA will allow the government to quantify and consider the economic costs and benefits of environmental and climate change externalities in policies and decisions.	PSA, DENR	
National Land Use Act	This bill aims to serve as a national policy to provide rational, holistic, and just allocation, utilization, management, and development of land resources.	DENR	
Magna Carta of Disaster Risk Reduction Management Workers	Reduction Management Workers will promote and improve the socio-economic and psychological well-		
National Continuity Policy	This aims to establish a policy on planning, implementing, and assessing government and private sector continuity programs to ensure the uninterrupted performance of essential functions and delivery of critical services.	OCD, DOLE	

Results Matrix

Table 16.2 presents the indicators and targets within the plan period to accelerate climate action and strengthen disaster resilience.

Table 16.2 Results Matrix: Accelerate Climate Action and Strengthen Disaster Resilience

	BASELINE (Year)	TARGETS						RESPONSIBLE	
INDICATOR		2023	2024	2025	2026	2027	2028	EOP	AGENCY
Percent LGUs w/ reviewed CC/DRRM plans									
a. CLUP	"11.27% (2022)"	18%	24%	30%	37%	43%	49%	49%	DHSUD
d. LCCAP	"83% (2022)"	100%	100%	100%	100%	100%	100%	100%	CCC
Percent LGUs w/ operating Early Warning System	"93.66% (2021)"	Increasing					LGUs, DILG, DOST		
Disaster mortality rate in LGUs	"9 % (2021) "	Decreasing					LGUs/RDRRMC		
Percent public expenditure in climate change	"25% [2020]"	26%	26%	27%	27%	28%	28%	28%	DBM/CCC
Protected areas in relation to marine areas, universe (in million hectares)	"6 (2017)"	6	6	6	6	6	6	6	DENR
Number of Priority inland/ wetland effectively managed (in no)	"15 (2022)"	15	15	15	15	15	15	15	DENR
Percent energized by electric cooperatives	"111.3% (2021)"	Sustain					NEA/PSA		
Jobs generated from reforestation and non-timber/agroforestry enterprises (NGP, CBFM) increased	"8,387 (2016)"	Increasing				DENR			
Local revenue growth rate maintained (%)	"5% (2021)"	Increasing				DENR			

Endnote:

 $\hbox{\cite{thm-part} 1] Terminal Report re: Effects of STS "PAENG" in CALABARZON. (February 2023). Office of Civil Defense.}$

PART V

Plan Implementation, Monitoring and Evaluation



Plan Implementation, **Monitoring and Evaluation**

Plan Implementation

As the region's highest policy and planning body, the CALABARZON RDC will coordinate the implementation of the RDP 2023-2028. The plan will be translated into PPAs to be included in the Regional Development Investment Program (RDIP) 2023-2028. In turn, the RDIP will be the basis for preparing the annual budget proposals of RLAs, SUCs, and GOCCs. Programs and projects at the provincial level funded through the public-private partnership will also be considered in the RDIP.

To effectively track progress toward achieving the goals, objectives, and targets set out in the RDP and RDIP, monitoring of inputs, outputs, and outcomes will be undertaken. Input monitoring will be based on the funding

of PPAs in the RDIP to ensure sufficient resources. Once funding has been secured, output monitoring will be carried out to track the actual implementation of the programs and projects. This will involve tracking the progress of activities and assessing whether they are being implemented in accordance with the planned timelines and budget.

At the highest level of monitoring, outcome monitoring will be conducted to assess the achievement of sector and sub-sector outcomes set out in the plan. This will involve measuring the impact of the PPAs on the target population and assessing whether the desired outcomes have been achieved.

Input Monitoring

To ensure that programs and projects identified in the RDIP are adequately funded and implemented, the RDC will conduct an annual technical budget review to assess the budget requirements of RLAs, SUCs, and GOCCs. Once reviewed, the RDC will endorse the budget to national agencies and to the DBM for consideration and funding, as most funds come from the General Appropriations Act. However, other financing sources such as Official Development Assistance (ODA), funds from LGUs, and public-private partnerships may be explored, if needed.

In addition to funding, proposed legislations identified in the plan will be monitored to ensure their timely passage into law. Through the Legislative Executive Development Advisory Council (LEDAC), NEDA will oversee the legislative process and monitor the progress of these bills. This will ensure that the necessary legal framework is put in place to support the implementation of the RDP.

Overall, this process will ensure that the RDIP is well-funded and legally supported, enabling its effective implementation and the attainment of its goals and objectives.

Output Monitoring

Through the Regional Project Monitoring and Evaluation System (RPMES), project monitoring will be conducted with the active involvement of various agencies, local governments, and nongovernment organizations. The RPMES covers all development projects, including programs and projects in the RDIP and ODA projects, and will be undertaken by LGUs, SUCs, and GOCCs at the regional, provincial, city, and municipal levels.

At the regional level, the Regional Project Monitoring Committee (RPMC) will monitor the status of project implementation through the submission of project status reports containing information on the physical and financial accomplishments vis-a-vis targets. The local project monitoring committees at the provincial, city, and municipal governments, as well as RLAs, GOCCs, and SUCs, will be enjoined to carry out their monitoring functions and responsibilities. To ensure on-track implementation of programs and projects, updates, issues, and concerns will be tackled in the quarterly meetings of the RPMC and field visits. Issues and concerns that affect several stakeholders will be subjected to problem-solving sessions.

Aside from desk monitoring and field visits, the CALABARZON Project Monitoring System

(cPMS), an online monitoring system, will be utilized. This will facilitate the submission of upto-date RPMES reports and the identification of problems that impede project implementation. Implementing agencies and government offices, through the cPMS, will submit regular updates on the implementation of their programs and projects.

To assess the effectiveness of completed projects and their contribution to the attainment of the RDP's desired outcomes, the RPMC will conduct ex-post evaluations. An impact evaluation will also be conducted for projects that have significant potential to impact communities and influence future policy and budget directions, and best practices in project design and implementation will be documented. This will serve as a valuable resource for enhancing the design and implementation of similar projects in the future and will help ensure that these projects achieve their intended outcomes. Expost and impact evaluations will enable the RDP to remain responsive to the needs of the communities it serves and effectively achieve its goals and objectives

Outcome Monitoring

To operationalize the Managing for Development Results strategy, plan monitoring and evaluation will focus on assessing the achievement of outcomes in the RDP as measured by indicators and targets in the Results Matrices. The RDC Secretariat, in coordination with the RDC Sectoral and Special Committees that served as Planning Committees during the plan

formulation, will conduct an annual assessment presents the coordination mechanism under the on achieving targets in the RDP. Table 17.1 RDC.

Table 17.1 Regional Coordination Mechanism for Plan Implementation and Monitoring

RDP Chapter	Coordination Mechanism
Chapter 4. Promote Human and Social Development	SCSD/SP
Chapter 4.1 Boost Health	SCSD/SP
Chapter 4.2 Improve Education and Lifelong Learning	SCSD/SP
Chapter 4.3 Establish Livable Communities	RLUC
Chapter 5 Reduce Vulnerabilities and Protect Purchasing Power	SCSD/SP
Chapter 5.1 Ensure Food Security and Proper Nutrition	SCED
Chapter 5.2 Strengthen Social Protection	SCSD/SP
Chapter 6 Increase Income-Earning Ability	SCSD/SP
Chapter 7 Modernize Agriculture and Agri-Business	SCED
Chapter 8 Revitalize Industry	SCED
Chapter 9 Reinvigorate Services	SCED
Chapter 10 Advance R&D, Technology and Innovation	RRIC
Chapter 11 Promote Trade and Investments	IPG
Chapter 12 Promote Financial Inclusion and Improve Public Financial Management	SCMDA
Chapter 13 Expand and Upgrade Infrastructure	SCID, RPMC
Chapter 14 Ensure Peace and Security, and Enhance Admin-istration of Justice	SCMDA
Chapter 15 Practice Good Governance and Improve Bureaucrat-ic and Regulatory Efficiency	SCMDA
Chapter 16 Accelerate Climate Action and Strengthen Disaster Resilience	SCED

The RDC sectoral and special committees will ensure effective coordination and convergence of PPAs. These committees serve as platforms for discussion and resolution of regional and sector-specific issues, as well as national agendas that have regional consequences.

The annual plan assessment will be in the form of the Regional Development Report (RDR), highlighting the significant accomplishments and performance of PPAs implemented by RLAs, SUCs, and GOCCs. It also provides development prospects that can be harnessed to optimize positive effects and opportunities to improve the performance of lagging sectors. The annual RDR also serves as a guide in the technical review of budget proposals.

Plan Communication and Advocacy

Advocacy is necessary to increase awareness and understanding of the plan, encourage the participation of the different sectors to contribute to plan implementation, facilitate unified policy direction for development priorities, and gain support from key players in regional development.

As the RDC Secretariat, the NEDA Region IV-A will lead the RDP advocacy. Activities include preparing and disseminating promotional materials, conducting public campaigns and orientations for key development actors (e.g., Congress, local governments, and RLAs), and using social media platforms.

Acronyms and Abbreviations

2ID 2nd Infantry Division

4PH Pambansang Pabahay Para sa Pilipino4Ps Pantawid Pamilyang Pilipino Program

A&D Alienable and Disposable

AAF Adopt-a-Family

AAM Adopt-a-Municipality

ACPC Agricultural Credit Policy Council

ADAC Anti-Drug Abuse Councils

AFF Agriculture, Forestry and Fishery
AFP Armed Forces of the Philippines

AI Artificial Intelligence

AICS Assistance to Individuals in Crisis Situation

ALS Academic-Industry Linkage
ALS Alternative Learning System

ANI AgriNurture Inc.

APGR Annual Population Growth Rate

ARB Agrarian Reform Beneficiary

ARBO ARB Organization

ARTA Anti-Red Tape Authority

ASEAN Association of Southeast Asian Nations

ASF African Swine Fever

ASPBI Annual Survey of Philippine Business and Industry

ATI Agricultural Training Institute

BAC Bayanihan Agricultural Cluster

BADAC Barangay Anti-Drug Abuse Council

BAI Bureau of Animal Industry

BatStateU Batangas State University

BCP Business Continuity Plan

BDP Barangay Development Program

BEIS Basic Education Information System

BFAR Bureau of Fisheries and Aquatic Resources

BIR Bureau of Fire Protection

Bureau of Internal Revenue

BIST Business Innovation through Science and Technology

BJMP Bureau of Jail Management and Penology
BLGF Bureau of Local Government Finance
BMBE Barangay Micro Business Enterprise

BOD Biological Oxygen Demand
BOT Build-Operate-Transfer

BPLS Business Permits and Licensing System

BSP Bangko Sentral ng Pilipinas

BSPSFI Bangko Sentral ng Pilipinas - Supervised Financial Institution

Bureau of Treasury

BuCor Bureau of Corrections

CALABARZON Cavite Laguna Batangas Rizal Quezon

CAMO Communist Terrorist Group Affected Mass Organization

CART Committee on Anti-Red Tape

CBDR Community-based Drug Rehabilitation
CBMS Community-Based Monitoring System

CBRN Chemical, Biological, Radiological, and Nuclear

CC/DRRM Climate Change/Disaster Risk Reduction Management

CCA Climate Change Adaptation

CCAM Climate Change Adaptation and Mitigation

CCAs CALABARZON Convergence Areas

CCC Climate Change Commission
CCE Crime Clearance Efficiency
CCT Conditional Cash Transfer

CCW Centers, Corridors, and Wedges

CDA Cooperative Development Authority

CEU Central Evidence Unit

CFRAS CALABARZON Flood Risk Assessment Study

CHEd Commission on Higher Education
CHR Commission on Human Rights
CIO Crisis Intervention Office

CLPEP Child Labor Prevention and Elimination Program

CLUP Comprehensive Land Use Plan

CMCI Cities and Municipalities Competitiveness Index
CMD Committee on Migration and Development

COA Commission on Audit

COA-PMO Commission on Audit Project Management Office

COVID-19 Coronavirus Disease

CPA Citizen Participatory Audit
CPI Carbon Pricing Instruments

cPMS CALABARZON Project Monitoring System

CRADLE Collaborative Research and Development to Leverage the Economy

CREATE Corporate Recovery and Tax Incentives for Enterprises

CSC Civil Service Commission
CSE Crime Solution Efficiency

CSIS Citizen Satisfaction Index Survey
CSM Client Satisfaction Measurement

CSO Civil Society Organization

CSP Competitive Selection Process

CSPP Contribution Subsidy Provider Program

CTG Communist Terrorist Group
CvSU Cavite State University

CWC Council for the Welfare of Children

DA Department of Agriculture

DAR Department of Agrarian Reform

DBM Department of Budget and Management

DENR Department of Environment and Natural Resources

DENR-EMBDepartment of Environment and Natural Resources- Environmental Management Bureau **DENR-MGB**Department of Environment and Natural Resources - Mines and Geosciences Bureau

DepEdDepartment of EducationDFPDigital Farmers Program

DG Drug Group

DHSUD Department of Human Settlements and Urban Development

DICT Department of Information and Communications Technology

DILEEP DOLE's Integrated Livelihood and Emergency Employment Program

DILG Department of the Interior and Local Government

DMW Department of Migrant Workers

DOE Department of Energy
DOF Department of Finance
DOH Department of Health
DOJ Department of Justice

DOLE Department of Labor and Employment

DOST Department of Science and Technology

DOST-FNRI Department of Science and Technology - Food and Nutrition Research Institute

DOT Department of Tourism

DOTr Department of Transportation

DPWH Department of Public Works and Highways

DRR Disaster Risk Reduction

DRRM Disaster Risk Reduction and Management

DSS Decision Support System

DSWD Department of Social Welfare and Development

DTI Department of Trade and Industry

DTI-BOI Department of Trade and Industry - Board of Investments

DTP Devolution Transition Plan

DU Distribution Utility

DWR Department of Water Resources

DX Digital Transformation

eBOSS Electronic Business One-Stop Shop

EBT Enterprise-based Training

EC Electic Cooperative

ECCD-F1K Early Childhood Care Development-First 1000 Days
E-CLIP Enhanced Comprehensive Local Integration Program

EGSD Energy Efficiency and Conservation

EGSD Efficient Government Service Delivery

EODB Executive Order Number
EODB Ease of Doing Business

ERC Extended Producer Responsibility
ERC Energy Regulatory Commission

ERDB Ecosystems Research and Development Bureau

ESG Environmental, Social, and Governance

EVOSS Energy Virtual One-Stop Shop

EWS Early Warning System

F2C2 Farm and Fisheries Clustering and Consolidation Program

FDA Food and Drug Authority

FDI Foreign Direct Investment

FFS Farmers Field School

FFSAT Food Safety Self-Assessment Tool

FHSIS Field Health Services Information System

FIA Foreign Investment Act
FIRe Fourth Industrial Revolution

FIST Financial Institutions Strategic Transfer

FMA Fisheries Management Areas

FMR Farm-to-market Road FOI Freedom of Information **FSP** Food Share Program **FTA** Free Trade Agreement GAD Gender and Development **GBV** Gender-Based Violence **GCF** Green Climate Fund GCI Green Corridor Initiative

GEMP Government Energy Management Program

GEOP Green Energy Option Program

GFI Government Financing Institution

GHG Greenhouse Gas

GIDA Geographically Isolated and Disadvantaged Area

GJ HRDP Green Jobs Human Resource Development Plan

GOCC Government-owned and Controlled Corporation

GOJUST Governance in Justice
GovNet Government Network

GRDP Gross Regional Domestic Product

GSIS Government Service Insurance System

GVA Gross Value Added
GVC Global Value Chain

HDMF Home Development Mutual Fund

HEI Higher Education Institution

HFEP Health Facilities Enhancement Program

HH Household

HIV Human Immunodeficiency Virus

HNRDA Harmonized National Research and Development Agenda

HR Human Resource

HRH Human Resources for Health

HUC Highly Urbanized City

HVI High-Value Individual

IBP Integrated Bar of the Philippines

IBPAP Information Technology and Business Process Association of the Philippines

IC Insurance Commission

ICP Infrastructure Connectivity Plan

ICT Information and Communication Technology

ID Industrial Design

IDP Internally Displaced Person

IEC Information, Education and Communication
IEET Industry, Energy, and Emerging Technology

iFWD PH Innovations for Filipinos Working Distantly from the Philippines

IMC Interventions Monitoring Card

IMT Industrial, Manufacturing, and Transport

IP Indigenous People

IPA Investment Promotion Agency

IPOPHL Intellectual Property Office of the Philippines

IPR Intellectual Property Right

IPRA Indigenous Peoples Rights' Act

IPU Investments Promotion Unit Network

ISF Informal Settler Families

IT BPO Information Technology Business Process Outsourcing

IT-BPM Information Technology and Business Process Management

ITDI Industrial Technology Development Institute

IWRM Integrated Water Resources Management

JMC Joint Memorandum Circular

JOW Justice on Wheels

JSCC Justice Sector Coordination Council

JZ Justice Zone

KAYA Kapital Assistance for Young Agripreneurs

KC-NCDDP Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services-National

Community-Driven Development Program

KIST Knowledge, Innovation, Science, and Technology

KMME Kapatid Mentor ME

KP Katarungang Pambarangay

LAMP Learning Assurance for Monitoring and Progress

LBP Land Bank of the Philippines

LCCAP Local Change Climate Change Action Plan

LDC Local Development Council

LDRRMP Local Disaster Risk Reduction and Management Plans

LEDAC Legislative Executive Development Advisory Council

LEE Local Economic Enterprises

LFS Labor Force Survey

LGRRC Local Governance Regional Resource Center

LGSF-SBDP Local Government Support Fund for Support to Barangay Development Program

LGU Local Government Unit

LHEARN Learning Hub on Enhanced and Revitalized Nutrition

LLDA Laguna Lake Development Authority

LNG Liquefied Natural Gas

LRT Light Rail Transit

LSB Local Special Bodies

LSP Local Shelter Plan

LTER Local Total Electrification Roadmap

LTO Land Transportation Office

LTOPF License to Own and Possess Firearm

LUCs Local Universities and Colleges

LWUA Local Water Utilities Administration

M&D Migration and Development

MARINA Maritime Industry Authority

MB Minahang Bayan

MBN Modern Basic Needs

MFI Microfinance Institutions

MIMAROPA Mindoro Marinduque Romblon Palawan

MKA Murang Kuryente Act

MPEC Multipurpose Evacuation Center

MR Mortality Ratio

MSAC Multisectoral Advisory Committee

MSME Micro, small and medium enterprises

N/LDRRM National/Local Disaster Risk Reduction and Management

NAIA Ninoy Aquino International Airport

NAMRIA National Mapping and Resource Information Authority

NAT National Achievement Test
NCA Natural Capital Accounting

NCAA National Commission for Culture and Arts
NCCAP National Climate Change Action Plan

NCIP National Commission on Indigenous Peoples

NCR National Capital Region

NCSC National Commission Of Senior Citizens

NCWS KDP New Centennial Water Source - Kaliwa Dam Project

NDC Nationally Determined Contribution

NEA National Electrification Administration

NEDA National Economic and Development Authority

NGJ HRD National Green Jobs Human Resource Development Plan

NGO Non-Government Organization

NHIP National Health Insurance Program

NHMFC National Home Mortgage Finance Corporation

NIA National Irrigation Administration

NICA National Intelligence Coordinating Agency

NICER Niche Centers in the Regions for Research and Development

NIHS National ICT Household Survey

NNC National Nutrition Council

NPPS National Policy and Planning Staff

NPRMS National Policy on Regulatory Management System

NREP National Renewable Energy Program

NSBI National School Building Inventory

NSCR North-South Commuter Railway

NSFI National Strategy for Financial Inclusion

NSWC National Solid Waste Management Commission

NUIP National Unemployment Insurance Program

NUSP National Union of Students of the Philippines

NWRB National Water Resources Board

NYC National Youth Commission

OADR Office for Alternative Dispute Resolution

OCD Office of Civil Defense

ODA Official Development Assistance

OF Overseas Filipino

OFW Overseas Filipino Worker
OOSC Out of School Children

OPAPRU Office of the Presidential Adviser for Peace, Reconciliation, and Unity

OSMRC One-Stop-Migration Resource Center

OSY Out of School Youth

OWWA Overseas Workers Welfare Administration

P/C/MPOC Provincial/City/Municipal Peace and Order Council

PA Philippine Army

PAFES Province-led Agriculture and Fisheries Extension Systems

PAGASA Philippine Atmospheric, Geophysical and Astronomical Services Administration

PAMANA Payapa at Masaganang Pamayanan
PAMB Protected Area Management Board

PAO Public Attorney's Office

PCC Philippine Competition Commission

PCCM Provincial Camp Coordination and Camp Management

PCG Philippine Coast Guard

PCIC Philippine Crop Insurance Corporation

PCMD Provincial Committee on Migration and Development

PCW Philippine Commission on Women

PDEA Philippine Drug Enforcement Agency

PDL Person Deprived of Liberty
PDP Philippine Development Plan

PDPFP Provincial Development & Physical Framework Plan

PELP Philippine Export Development Plan
PELP Philippine Energy Labeling Program
PES Payment for Ecosystem Services

PESFA Private Education Student Financial Assistance

PESO Public Employment Service Office
PEZA Philippine Economic Zone Authority

PFM Public Financial Management

PFMAT public financial management assessment tool

PHC Primary Health Care

PhilHealth Philippine Health Insurance Corporation

PhilSys Philippine Identification System
PIA Philippine Information Agency

PIDS Philippine Institute for Development Studies

PMNP Philippine Multi-Sectoral Nutrition Project

PNP Philippine National Police

PNPA Philippine National Police Academy

POC Person of Concern
POGI Polillo Group of Island

POPCOM Commission on Population and Development

PPA Philippine Ports Authority

PPAN Philippine Plan of Action for Nutrition

PPAs Program, Project, or Activities

PQF Philippine Qualification 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

PSTO Provincial Science and Technology Office

PWD Person with Disability

PWSSMP Philippine Water Supply and Sanitation Master Plan

QRP Quinta, Rolly, and Ulysses

R&D Research and Development

RA Republic Act No.

RCC Regional Competitiveness Committee

RCEP Regional Comprehensive Economic Partnership Agreement

RCOA Retail Competition and Open Access
RComDev Regional Committee on Devolution

RCQEFA Regional Committee on Quality Education For All

RCS Report Card Survey

RCSP Re-tooled Community Support Program

RDC Regional Development Council

RDC IPG Regional Development Council-Investment Promotions Group

RDCom Regional Development Committee

RDI Research, Development, and Innovation

RDIP Regional Development Investment Program

RDP Regional Development Plan
RDR Regional Development Report

RDRA Regional Development Research Agenda

RDRRMC Regional Disaster Risk Reduction Management

RE Renewable Energy

REINA Real-Infanta-General Nakar
RFID Radio Frequency Identification
RIA Regulatory Impact Assessment

RIDMD Regional Investigation and Detective Management Division

RIIC Regional Inclusive Innovation Center

RLA Regional Line Agency

RLUC Regional Land Use Committee

ROLL-IT Roads Leveraging Linkages of Industry and Trade

RoRo Roll off Roll on

ROSETTA Real-Time Online Sexual Exploitation and Trafficking Tracking and Alert

RPAN Regional Plan of Action for Nutrition

RPFP Regional Physical Framework Plan

RPMC Regional Project Monitoring Committee

RPMES Regional Project Monitoring and Evaluation System

RPOC Regional Peace and Order Council

RRIC Regional Research and Innovation Committee

RROW Road-Right-of-Way

RROWA Road-Right-of-Way Acquisition

RRP Rehabilitation and Recovery Programs

RSBSA Registry System for Basic Sectors in Agriculture

RSCWC Regional Sub-Committee for the Welfare of Children

RSET Regional Social Economic Trends
RSI Research, Statistics, and Innovation

RTF-ELCAC Regional Task Force to End Local Communist Armed Conflict

RTIC Regional Technical Vocational Education and Training (TVET) Innovation Centers

S&T Science and Technology **S4CP** Science for Change Program

SAFDZ Strategic Agriculture and Fisheries Development Zones

SARAI Smarter Approaches to Reinvigorate Agriculture as an Industry in the Philippines

SC Supreme Court

SCE Sub-Committee on Energy

SCED Sectoral Committee on Economic Development

SCH Sub-Committee on Housing

SCID Sectoral Committee on Infrastructure Development

SCMDA Sectoral Committee on Macroeconomy and Development Administration

SCSD/SP Sectoral Committee on Social Development/Social Protection

SDC Strategic Development Clusters

SDD Sex-disaggregated Data

SDG Sustainable Development Goals

SDO School Division Office

SDP Sustainable Development Program
SEC Securities and Exchange Commission

SEF Special Education Fund
SEI Science Education Institute

SETUP Small Enterprises Technology Upgrading Program

SGLG Seal of Good Local Governance

SHIELD Strategic Help Desk for Information, Education, Livelihood, and Other Developmental Interventions

SHS Senior High School

SIPP Strategic Investment Priority Plan

SIPTVETS Supporting Innovation in the Philippine Technical and Vocational Education and Training System

SIYB Start and Improve Your Business Training

SLH South Long Haul
SLI Street-Level Individual

SLSU Southern Luzon State University

SOLCOM Southern Luzon Command

SP Social Protection
SPEd Special Education

SPIA Sangley Point International Airport

SSS Social Security System

STEAM Science, Technology, Engineering, Agri-Fisheries, and Mathematics

STEM Science, Technology, Engineering and Mathematics

Stience, Technology, and Innovation

STRPC Southern Tagalog Regional Party Committee

STS Sever Tropical Storm

SUC State University and Colleges

SUN Scaling Up Nutrition

SWM Solid Waste Management

School Year

TBI Technology Business Incubators

TECH4ED Technology Empowerment for Education, Employment, Entrepreneurship, and Economic

Development

TELCO Telecommunicaion Company

TESDA Technical Education and Skills Development Authority

TEU Twenty-foot equivalent unit

TMT Technology, Media, and Telecommunication

TPP Third-Party Provider

TUPAD Tulong Panghanapbuhay sa Ating Disadvantaged/Displaced

TVET Technical-Vocational Education and Training

TVI Technical Vocation Institutions

TWG Technical Working Group

TWSP Training for Work Scholarship Program

UHC Universal Health Care Act

UM Utility Model

UPLB University of the Philippines Los Baños

URC Universal Robina Corporation
URS University of Rizal System

VAWC Violence Against Women and Children
VIP Vaccine Institute of the Philippines

VSAT Very Small Aperture Terminal
WASH Water, Sanitation and Hygiene

WD Water District

WGI Worldwide Governance Indicators

WILD Water-borne Diseases, Influenza, Leptospirosis, Dengue

WJP World Justice Project
WONA Whole of Nation Approach

WQMA Water Quality Management Area
WRC Water Regulatory Commission

WSP Water Service Provider

WSS Water Supply and Sanitation

YEP Youth Entrepreneurship Program

ZO Zoning Ordinances

Planning Committees

CHAPTER 4: PROMOTE HUMAN AND SOCIAL DEVELOPMENT

Sub-chapter 4.1: Boost Health

National Economic and Development Authority Department of Health

Commission on Population and Development Philippine Statistics Authority

Secretariat: Development Research Division

(Sectoral Committee on Social Development/Social Protection)

Sub-chapter 4.2: Improve Education and Lifelong Learning

Association of Local Colleges and Universities Philippine Association of Colleges and Universities **Batangas State University** PSR Emerson Atanacio (Terra Verde Ecofarm Inc.)

PSR Jerry V. Bitoon (Atikha Overseas Workers and Cavite State University

Commission on Higher Education Communities Initiative, Inc.)

Department of Education Regional Tech-Voc Educators Association

Early Childhood Care and Development Council Southern Luzon State University

Technical Education and Skills Development Authority Laguna State Polytechnic University

National Commission on Indigenous People University of Rizal System

University of the Philippines - Los Baños (UPLB) National Economic and Development Authority

National Youth Commission

Secretariat: Development Research Division

(Sectoral Committee on Social Development/Social Protection)

Sub-chapter 4.3: Establish Livable Communities

Arch. Shirley Silva-Mazon (Ayala Land, Inc.) Department of Public Works and Highways

Department of Education

Department of Environment and Natural Resources

Department of Environment and Natural Resources -

Environment Management Bureau

Department of Health

Department of Human Settlements and Urban

Development

Department of Interior and Local Government

EnP. Rasmiah Malixi (Pollution Control Association of

the Philippines, Inc.)

National Economic and Development Authority

National Housing Authority

Office of Civil Defense

Philippine Statistics Authority

UPLB - College of Human Ecology

Secretariat: Development Research Division

(Sectoral Committee on Social Development/Social Protection)

CHAPTER 5: REDUCE VULNERABILITIES AND PROTECT PURCHASING POWER

Sub-chapter 5.1: Ensure Food Security and Proper Nutrition

Cooperative Development Authority National Nutrition Council

Department of Agrarian Reform Philippine Council for Agriculture, Aquatic and Natural

Department of Agriculture Resources Research and Development

Department of Budget and Management Philippine Crop Insurance Corporation

Department of Environment and Natural Resources Philippine Statistics Authority

Department of Labor and Employment

Department of Finance PSR Bon Ian Dela Roca (Sorosoro Ibaba Development

Cooperative)

Land Bank of the Philippines PSR Candida B. Adalla (Philippine Agriculture and

National Economic and Development Authority Resources Research Foundation, Inc.)

Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development

Sub-chapter 5.2: Strengthen Social Protection

Department of Foreign Affairs Office of Civil Defense

Department of Labor and Employment Overseas Workers Welfare Administration

Department of Migrant Workers Philippine Commission on Women

Department of Social Welfare and Development Philippine Health Insurance Corporation

Government Service Insurance System Philippine National Police

National Economic and Development Authority Social Security System

Secretariat: Development Research Division

(Sectoral Committee on Social Development/Social Protection)

CHAPTER 6: INCREASE INCOME-EARNING ABILITY

Department of Environment and Natural Resources IT and Business Process Association of the Philippines

Department of Information and Communications National Economic and Development Authority

Technology Philippine Overseas Employment Administration

Department of Labor and Employment Philippine Statistics Authority

Department of Migrant Workers PSR Emerson Atanacio (Terra Verde Ecofarm Inc.)

Department of Tourism Technical Education and Skills Development Authority

Secretariat: Development Research Division

(Sectoral Committee on Social Development/Social Protection)

CHAPTER 7: MODERNIZE AGRICULTURE AND AGRI-

Cooperative Development Authority Philippine Crop Insurance Corporation

Department of Agrarian Reform Philippine Statistics Authority

Department of Agriculture PSR Bon Ian Dela Roca (Sorosoro Ibaba Development

Department of Budget and Management Cooperative)

Department of Environment and Natural Resources PSR Candida B. Adalla (Philippine Agriculture and

Department of Labor and Employment Resources Research Foundation, Inc.)

National Economic and Development Authority Technical Education and Skills Development Authority

Philippine Council for Agriculture, Aquatic and Natural

Resources Research and Development

Department of Science and Technology

Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development)

CHAPTER 8: REVITALIZE INDUSTRY

Association of Petrochemical Manufacturers of the Development Bank of the Philippines

IT and Business Process Association of the Philippines Philippines

Bangko Sentral ng Pilipinas Metals Association

Bureau of Fisheries and Aquatic Resources National Dairy Authority

Chamber of Automotive Manufacturers of the National Economic and Development Authority

Philippines, Inc. National Economic and Development Authority

Cooperative Development Authority Philippine Chambers of Commerce and Industry

Department of Agriculture Philippine Economic Zone Authority

Department of Energy Philippine Fiber Industry Development Authority

Department of Environment and Natural Resource Philippine Ports Authority - MarQuez and Batangas

Department of Information and Communications Philippine Statistics Authority

Technology Semiconductor and Electronics Industries in the

Department of Interior and Local Government Philippines Foundation, Inc.

Department of Labor and Employment Technical Education and Skills Development Authority

> Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development)

CHAPTER 9: REINVIGORATE SERVICES

Commission on Higher Education Cooperative Development Authority

Department of Energy

Department of Information and Communications

Technology

Department of Labor and Employment

Department of Public Works and Highways

Department of Science and Technology

Department of the Interior and Local Government

Department of Tourism

Department of Trade and Industry Development Bank of the Philippines

IT and Business Process Association of the Philippines

Land Bank of the Philippines-SLLG

National Economic and Development Authority

Office of Civil Defense

Philippine Economic Zone Authority

PSR Teresita M. Leabres (Cavite ICT Council, Inc.)

Technical Education and Skills Development Authority

Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development)

CHAPTER 10: ADVANCE RESEARCH & DEVELOPMENT, **TECHNOLOGY, AND INNOVATION**

Batangas State University

Cavite State University

Commission on Higher Education

DENR-Ecosystems Research and Development Bureau

Department of Agriculture

Department of Education

Department of Health

Department of Information and Communications

Technology

Department of Science and Technology

Department of Trade and Industry

DTI - Competitiveness and Innovation Group

Intellectual Property Office of the Philippines

Laguna State Polytechnic University

Manuel S. Enverga University Foundation

National Economic and Development Authority

Philippine Statistics Authority

PSR Candida B. Adalla (Philippine Agriculture and

Resources Research Foundation, Inc.)

PSR Vivien Co-Say (ICCT Colleges Foundation, Inc.)

Southern Luzon State University

Southern Tagalog Agriculture, Aquatic and Resources

Research Development and Extension Consortium

Southern Tagalog Consortium for Industry and Energy

R&D

University of Rizal System

University of the Philippines - Los Baños

Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development)

CHAPTER 11: PROMOTE TRADE AND INVESTMENTS

Bangko Sentral ng Pilipinas

Board of Investments

Department of Agriculture

Department of Energy

Department of Information and Communications

Technology

Department of Labor and Employment

Department of Science and Technology

Department of Trade and Industry

Department of Trade and Industry-Trade Promotions

Group

Export Development Council National Dairy Authority

National Economic and Development Authority Philippine Chamber of Commerce and Industry

Philippine Economic Zone Authority

Philippine Fiber Industry Development Authority

Philippine Statistics Authority

PSR Richard Albert I. Osmond (Philippine Industrial

Estate Association, Inc.)

Secretariat: Project Development, Investment Programming and Budgeting Division (Sectoral Committee on Economic Development)

CHAPTER 12: PROMOTE FINANCIAL INCLUSION AND IMPROVE PUBLIC FINANCIAMANAGEMENT

Bangko Sentral ng Pilipinas

Bureau of Internal Revenue

Bureau of Local Government Finance

Bureau of Treasury

Cooperative Development Authority

Department of Budget and Management

Government Service Insurance System

Home Development Mutual Fund

National Anti-Poverty Commission

National Economic and Development Authority

Philippine Statistics Authority

Social Security System

Secretariat: Policy Formulation and Planning Division (Sectoral Committee on Macroeconomy and Development Administration)

CHAPTER 13: EXPAND AND UPGRADE INFRASTRUCTURE

Civil Aviation Authority of the Philippines

Department of Agriculture

Department of Energy

Department of Environment and Natural Resources

Department of Health

Department of Information and Communication

Technology

Department of Interior and Local Government

Department of Public Works and Highways

Department of Transportation

Laguna Lake Development Authority

Land Transportation

Land Transportation Franchising and Regulatory

Board

Local Water Utilities Administration

Maritime Industry Authority

Metropolitan Waterworks and Sewerage System

National Irrigation Administration National Water Resources Board

Office of Civil Defense

Philippine National Railways

Philippine Ports Authority - MarQuez and Batangas

Philippine Statistics Authority

Toll Regulatory Board

Secretariat: Project Monitoring and Evaluation Division (Sectoral Committee on Infrastructure Development)

CHAPTER 14: ENSURE PEACE AND SECURITY AND ENHANCE ADMINISTRATION OF JUSTICE

Sub-chapter 5.1: Ensure Peace and Security

AFP - 2nd Infantry Division

Bureau of Fire Protection

Department of Information and Communications

Technology

Department of Interior and Local Government

National Economic and Development Authority

National Intelligence Coordinating Agency

Office of Civil Defense

Office of the Presidential Adviser on Peace,

Reconciliation and Unity

Philippine Drug Enforcement Agency

Philippine National Police

Philippine Statistics Authority

Secretariat: Policy Formulation and Planning Division (Sectoral Committee on Macroeconomy and Development Administration)

Sub-chapter 5.2: Enhance Administration of Justice

Bureau of Jail Management and Penology

Calamba City Justice Zone

Commission on Human Rights

Department of Information and Communications

Technology

Department of Interior and Local Government

DOJ - Board of Pardons and Parole

DOJ - Bureau of Corrections

DOJ - Office for Alternative Dispute Resolution

DOJ - Office of Regional Prosecutor

DOJ - Parole and Probation Administration

DOJ - Public Attorney's Office

National Bureau of Investigation National Economic and Development Authority

Philippine National Police Philippine Statistics Authority

Secretariat: Policy Formulation and Planning Division (Sectoral Committee on Macroeconomy and Development Administration)

CHAPTER 15: PRACTICE GOOD GOVERNANCE AND IMPROVE BUREAUCRATIC AND REGULATORY **EFFICIENCY**

Anti-Red Tape Authority Civil Service Commission Commission on Audit Department of Budget and Management Department of Information and Communications Technology

Department of Interior and Local Government Department of Trade and Industry National Economic and Development Authority

Secretariat: Policy Formulation and Planning Division (Sectoral Committee on Macroeconomy and Development Administration)

CHAPTER 16: ACCELERATE CLIMATE ACTION AND STRENGTHEN DISASTER RESILIENCE

Batangas State University Cavite State University Climate Change Commission Conservation International De La Salle University - Dasmariñas

DENR- Biodiversity Management Bureau DENR- Environmental Management Bureau IV-A

DENR- Forest Management Bureau Department of Budget and Management

Department of Environment and Natural Resources

Department of Labor and Employment Department of Public Works and Highways

Department of Science and Technology

Laguna State Polytechnic University

National Commission on Indigenous Peoples National Economic and Development Authority National Mapping and Resource Information

Authority

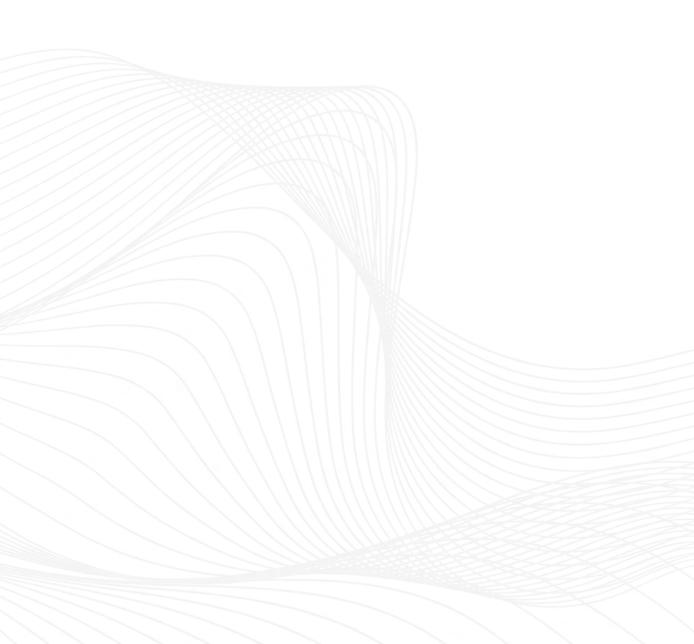
Office of Civil Defense

Philippine Atmospheric, Geophysical and Astronomical Services Administration Philippine Disaster Resilience Foundation

Philippine Statistics Authority Southern Luzon State University University of Rizal System

University of the Philippines - Los Baños

Secretariat: Policy Formulation and Planning Division (Sectoral Committee on Macroeconomy and Development Administration)



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