



Calabarzon
Regional Development Plan
2017-2022



Calabarzon
Regional Development Plan
2017-2022



© 2017 by the National Economic and Development Authority

All rights reserved. Any part of this publication may be used and reproduced, provided proper acknowledgement is made.

Regional Development Plan 2017-2022

Published by:

NEDA Regional Office IV-A (Calabarzon)
2560 `4th Floor Marcelita Building, Barangay Real, Calamba City, Laguna 4027 Philippines
Tel: (+6349) 545-7756 / (+6349) 576-0150
Email: rdc.calabarzon@gmail.com
www.calabarzon.neda.gov.ph

Table of Contents

Regional Development Council Resolution IV-A-155-2016	v
Message from the President	vii
Message from the Secretary of Socioeconomic Planning	ix
Message from the RDC Calabarzon Chairperson	xi
Foreword from the NEDA Regional Director	xiii
Acknowledgement	xv
List of Tables and Figures	xvii
Part I: Introduction	
Chapter 1: The Long View	5
Chapter 2: Global and Regional Trends and Prospects	13
Chapter 3: Overlay of Economic Growth, Demographic Trends, and Physical Characteristics	19
Chapter 4: Regional Development Plan 2017-2022 Overall Framework	37
Part II: Enhancing the Social Fabric (“Malasakit”)	
Chapter 5: Ensuring People-Centered, Clean, and Efficient Governance	43
Chapter 6: Pursuing Swift and Fair Administration of Justice	53
Chapter 7: Promoting Philippine Culture and Values	59
Part III: Inequality-Reducing Transformation (“Pagbabago”)	
Chapter 8: Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries	73
Chapter 9: Expanding Economic Opportunities in Industry and Services	91

Chapter 10: Accelerating Human Capital Development	113
Chapter 11: Reducing Vulnerability of Individuals and Families	137
Chapter 12: Building Safe and Secure Communities	147
Part IV: Increasing Growth Potential (“Patuloy na Pag-unlad”)	
Chapter 13: Reaching for the Demographic Dividend	155
Chapter 14: Vigorously Advancing Science, Technology, and Innovation	165
Part V: Enabling and Supportive Economic Development	
Chapter 15: Ensuring Sound Macroeconomic Policy	179
Chapter 16: Leveling the Playing Field	205
Part VI: Foundations for Sustainable Development	
Chapter 17: Attaining Just and Lasting Peace	215
Chapter 18: Ensuring Regional Security, Public Order, and Safety	221
Chapter 19: Accelerating Infrastructure Development	229
Chapter 20: Ensuring Ecological Integrity, Clean and Healthy Environment	259
Part VII: Plan Implementation and Monitoring	
Chapter 21: Plan Implementation and Monitoring	283
List of Acronyms	287
References	293
RDP 2017-2022 Planning Committees	295



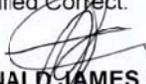
Republic of the Philippines
Regional Development Council
Region IV-A (Calabarzon)

RDC RESOLUTION NO. IV-A-155-2016

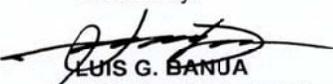
“APPROVING THE CALABARZON REGIONAL DEVELOPMENT PLAN 2017 TO 2022”

- WHEREAS,** Memorandum Circular No. 12 s. 2016 entitled, “Directing the Formulation of the Philippine Development Plan and the Public Investment Program for the Period 2017-2022” and Executive Order 325 s. 1996 mandates the Regional Development Councils (RDCs) to prepare a successor Regional Development Plan (RDP) to ensure the continuity of Development efforts;
- WHEREAS,** the RDP, 2017-2022, addresses the AMBISYON NATIN 2040, the 2030 Agenda for Sustainable Development Goals and the current administration's 0+10-point Socio-Economic Agenda;
- WHEREAS,** the RDP includes the assessment of the gains, gaps, challenges, and opportunities in attaining a higher growth trajectory that would contribute in the achievement of the national and regional long-term vision;
- WHEREAS,** to ensure that all sectors are represented in the plan formulation process, the RDC sectoral/special committees served as the planning committees (PC);
- WHEREAS,** the planning committees prepared the various chapters of the plan taking into consideration the national and local government units thrusts and the various advocacies of the region such as mainstreaming Gender and Development, Migration and Development, Disaster-Risk Reduction and Climate Change Adaptation, among others;
- WHEREAS,** the National Economic and Development Authority, as the government's national planning agency, served as the focal point in the preparation of the successor plan;
- WHEREAS,** the Sectoral Committees of the RDC endorsed the chapters for adoption during its fourth quarter meetings and an Inter-PC consultation was held on 24 November to ensure consistency of the plan and to solicit and integrate the comments of stakeholders;
- NOW THEREFORE,** on motion duly seconded, **BE IT RESOLVED, AS IT IS HEREBY RESOLVED,** to approve the Calabarzon Regional Development Plan 2017 to 2022;
- SIGNED,** this 8th day of December 2016 at the Cultural Center of Laguna, Sta. Cruz, Laguna.

Certified Correct:


DONALD JAMES D. GAWE
Acting RDC Secretary

Attested by:


LUIS G. BANUA
RDC Vice Chairperson

4/F 2560 Marcelita Building, National Highway, Barangay Real, Calamba City, Laguna 4027
Telefax. 049 545-7756 | 049 545-0091 • E-mail. rdc.calabarzon@gmail.com
<http://calabarzon.neda.gov.ph/>

Message



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

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

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

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

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

RODRIGO ROA DUTERTE

President

Republic of the Philippines

MANILA
May 2017

Message



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

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

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

A handwritten signature in black ink, appearing to read 'Ernesto M. Perna', written over a faint, stylized graphic element.

ERNESTO M. PERNIA

Secretary of Socioeconomic Planning

Message



The CALABARZON Regional Development Plan (RDP) 2017-2022 is the first step towards the attainment of the long-term vision of a liveable and a globally competitive industrial region.

The RDP is a shared output of the Regional Line Agencies (RLAs), Local Government Units (LGUs), Higher Education Institutions (HEIs), the private sector, civil society organizations, and other regional stakeholders that spell out the priority interventions and strategies of our region as anchored on human rights, President Duterte's 0 to 10 socio-economic agenda, and *Ambisyon Natin 2040*.

The RDC, as the link between national and local government, champions the importance of convergence and participatory governance in attaining the desired outcomes. It also recognizes the role of the private sector as partners and movers of regional development. The Plan will serve as a guide to all stakeholders in the preparation and harmonization of all plans which will lead to the achievement of this.

Through its completion, the RDC calls for a collective action in its implementation through policies, programs and projects, monitoring, and counts for the relentless support of all stakeholders.


HERMILANDO I. MANDANAS
RDC Chairperson

Foreword



As the industrial hub of the country, Calabarzon continues to be the second biggest contributor to the national economy, next to National Capital Region. In the past six years (2011-2015), the region has met and even exceeded growth targets for the industry sector and also managed to post positive increases in services and agriculture and fisheries. Having the biggest population size and with population growth rate increasing rapidly, Calabarzon ranked second in terms of per capita gross regional domestic product. Notwithstanding these gains, the greater challenge is to ensure that the growth is sustainable and make growth inclusive to benefit communities with persistent poverty in the region. Thus, the Regional Development Plan, 2017-2022 outlines major strategies and priority programs and projects that will propel the region to an even higher growth trajectory and ensure that everyone benefits from the fruits of development.

The Calabarzon Regional Development Plan (RDP) 2017-2022 is guided by the country's long term vision or *Ambisyon Natin 2040* adopted through Executive Order No. 5 (s.2016) which states that *"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"*. The RDP is aligned with the Philippine Development Plan and operationalizes President Duterte's 0 to 10 Socioeconomic Agenda that is centered on ensuring law and order, attracting more foreign and local direct investments, pursuing agricultural development, promotion of science and technology and valuing culture, among others.

The RDP has twenty-one chapters which consist of strategic interventions on reducing inequality by expansion and increased access to economic opportunities (“Pagbabago”); increasing potential growth (“Kaunlaran”); and enhancing the social fabric by good governance and justice (“Malasakit”). The plan also includes new chapters on technology adoption and maximizing the demographic dividend to support the transition towards a sustainable knowledge economy and a section on promoting awareness and valuing cultural diversity to enhance social cohesion.

The RDC led the formulation of the RDP through a series of consultations with various sectors of society to ensure that the

plan is needs responsive, takes into account the region’s endowments and potentials, and has a strong sense of stakeholder ownership and accountability to work within a common development framework.

As the blueprint for regional development, partners in government, the private sector and civil society are enjoined to use the Calarbazon RDP 2017-2022 as a guide for development endeavours and initiatives. The monitoring and evaluation of the achievement of plan targets will be done annually and shall be published in the Annual Development Reports while the monitoring of projects will be undertaken through the Regional Project Monitoring and Evaluation System.



LUIS G. BANUA

NEDA IV-A Regional Director and RDC
Vice-Chairperson

Acknowledgement

The completion of the Calabarzon Regional Development Plan 2017-2022 was made possible through the collaborative efforts of the members of the Regional Development Council and its partners. We would like to recognize the following for their immense contribution in the completion of the Plan:

- The members of the RDC and other development partners that actively participated during the consultation workshops and Planning Committee meetings
- The regional line agencies, statistical agencies, higher education institutions, LGUs and other regional development partners that provided data, completed researches, status of projects and other information that were valuable input in assessing the performance of the various sectors as well as in coming-up with the target
- Volunteer private groups who willingly provided comments and inputs to the various chapters of the Plan
- The five mappers of the Provincial Planning and Development Offices in the region for their assistance in the preparation of the maps
- The Sectoral Committee Chairpersons and Co-Chairpersons that facilitated the discussions during the PC meetings
- The members of the NEDA Calabarzon, RDC technical secretariat for their hard work and dedication in ensuring the quality and timely completion of the plan.

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

List of Tables and Figures

Chapter 1	The Long View	
Figure 1.1	The RDP within the Context of the Long-Term Development Plan	6
Figure 1.2	Regional Development Plan, 2017-2022	8
Chapter 2	Global and Regional Trends and Prospects	
Figure 2.1	Location Map, Calabarzon Region	13
Chapter 3	Overlay of Economic Growth, Demographic Trends, and Physical Characteristics	
Table 3.1	Calabarzon Politico-Administrative Subdivision, 2015	19
Figure 3.1	Hierarchy of Functions and Services	22
Figure 3.2	Three Policy Areas	24
Figure 3.3	Five-Tier Network/Hierarchy of Settlements	25
Table 3.2	Proposed Hierarchy of Settlements	25
Figure 3.4	Calabarzon Quadrant and Cluster Framework Concept	28
Figure 3.5	Proposed Calabarzon West-East Connections	30
Chapter 4	Regional Development Plan 2017-2022 Overall Framework	
Figure 4.1	The Development Framework	37
Chapter 5	Ensuring People-Centered, Clean, and Efficient Governance	
Figure 5.1	Strategic Framework for People-Centered, Clean and Efficient Governance	46
Table 5.1	Plan Targets for Ensuring People-Centered, Clean And Efficient Delivery of Public Goods and Services	46
Chapter 6	Pursuing Swift and Fair Administration of Justice	
Table 6.1	Number of Rehabilitation Interventions, Calabarzon, 2013-2015	53

Figure 6.1	Strategic Framework for Pursuing a Swift and Fair Administration of Justice	54
Table 6.2	Plan Targets to Pursue a Swift and Fair Administration of Justice	54
Chapter 7 Promoting Philippine Culture and Values		
Figure 7.1	Intangible Cultural Heritage in the Philippines recognized by NCCA	61
Figure 7.2	Cultural/Historical Tourism Areas in Calabarzon	61
Figure 7.3	Strategic Framework to Promote Philippine Culture and Values	63
Table 7.1	Plan Targets to Promote Philippine Culture and Values	64
Table 7.2	Legislative Agenda to Promote Philippine Culture and Values	67
Chapter 8 Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries		
Table 8.1	Summary of Key Sector Indicators, 2012- 2015	73
Table 8.2	Gross Regional Domestic Product (in PHP Million), 2011- 2015	74
Table 8.3	Employment in AFF (in thousands persons), 2011-2015	74
Table 8.4	Value of Production (in PhP Million), 2011- 2015	75
Table 8.5	Share of Subsector to Total Value of Production (in percent), 2011- 2015	75
Table 8.6	Inflation Rates among Basic Food Commodities (in percent), 2012- 2015	75
Table 8.7	Top 10 Commodities Based on Area Planted, 2011- 2015	76
Table 8.8	Top 10 Commodities Growth Rate Based on Area Planted, 2011- 2015	76
Table 8.9	Yield of Major Commodities (Metric Ton/Hectare), 2011- 2015	77
Table 8.10	Volume of Production of Livestock and Poultry (in Metric Ton), 2011- 2015	78
Table 8.11	Volume of Production of Fisheries (in Metric Ton), 2011- 2015	78
Figure 8.1	Strategic Framework for Expanding Economic Opportunities in Agriculture, Forestry and Fisheries	81
Table 8.12	Plan Targets to Expand Economic Opportunities in Agriculture, Forestry and Fisheries, 2017-2022	81

Chapter 9 Expanding Economic Opportunities in Industry and Services

Table 9.1	Gross Regional Domestic Product in the Industry Sector, Calabarzon, 2011-2015	91
Table 9.2	Gross Regional Domestic Product in the Services Sector, Calabarzon, 2011-2015	92
Table 9.3	Growth Rate in the Services Sector, Calabarzon, 2011-2015	93
Table 9.4	Employment Generated in the Industry Sector, Calabarzon, 2011-2015	93
Table 9.5	Employment Generated in the Industry Sub-sectors by Sex (in '000), Calabarzon, 2011-2015	94
Table 9.6	Total Employment Generated in the Services Sector by Sex, Calabarzon, 2011-2015	94
Table 9.7	Employment Generated in the Services Sub-sectors by Sex (in '000), Calabarzon 2012-2015	95
Table 9.8	Employment Generated from DTI-assisted MSMEs, Calabarzon, 2013-2015	95
Figure 9.1	Calabarzon Economic Zones, 2016	96
Table 9.9	Merchandise Exports, Total Approved Investments and Domestic Sales in Calabarzon, 2011-2015	96
Table 9.10	Target and Actual Tourism Data, Calabarzon, 2011-2015	97
Table 9.11	Growth rate of Tourism Industry, Calabarzon, 2011-2015	98
Figure 9.2	Consumer Price Index, Calabarzon, 2012-2015	99
Table 9.12	Protection of Consumer Welfare, Calabarzon, 2012-2015	100
Figure 9.3	Strategic Framework for Expanding Economic Opportunities in Industry and Services	103
Table 9.13	Plan Targets to Expand Economic Opportunities in Industry and Services, 2017-2022	104

Chapter 10 Accelerating Human Capital Development

Table 10.1	Nutrition Data, Calabarzon, 2012-2015	114
Table 10.2	Health Data, Calabarzon, 2012-2015	116
Table 10.3	Basic Education Data, Calabarzon, 2012-2015 (in percent)	118
Table 10.4	HEI and TVET Data, Calabarzon, 2012-2015	119
Table 10.5	Employment, Unemployment, Underemployment and Labor Force Participation Rate, Calabarzon, 2012-2015	120
Figure 10.1	Strategic Framework for Accelerating Human Capital Development	122
Table 10.6	Plan Targets to Improve Nutrition and Health	122

Table 10.7	Plan Targets to Ensure Lifelong Learning Opportunities for All, 2017-2022	124
Table 10.8	Plan Targets to Increase Income Earning Abilities	126
Table 10.9	Legislative Agenda to Accelerate Human Capital Development	133
Chapter 11	Reducing Vulnerability of Individuals and Families	
Figure 11.1	Strategic Framework for Reducing Vulnerability of Individual and Families	140
Table 11.1	Plan Targets to Reduce Vulnerability of Individual and Families	140
Chapter 12	Building Safe and Secure Communities	
Figure 12.1	Strategic Framework for Building Safe and Secure Communities	148
Table 12.1	Plan Targets on Direct Housing Assistance	148
Table 12.2	Plan Targets on Indirect Housing Assistance	149
Table 12.3	Plan Targets to Build Safe and Secure Communities	149
Chapter 13	Reaching for the Demographic Dividend	
Table 13.1	Population Size and Population Growth Rate by Selected Age Group	155
Table 13.2	Age Dependency Ratio (per 100 persons)	156
Figure 13.1	Population Pyramid, Calabarzon Region	156
Table 13.3	Distribution of Programs with COE/COD by Selected Region	158
Figure 13.2	Strategic Framework for Reaching the Demographic Dividend	159
Table 13.4	Plan Targets to Reach the Demographic Dividend	159
Chapter 14	Vigorously Advancing Science, Technology, and Innovation	
Table 14.1	Research and Development Expenditure by Region and by Sector (in '000 PHP), 2013	165
Table 14.2	Ratio of R&D Expenditure to GDP by Region, 2013	166
Table 14.3	R&D Personnel and Researchers, 2013	167
Figure 14.1	Completed and Published Researches, Calabarzon, 2011-2015	168
Figure 14.2	Focus of Completed Researches, Calabarzon, 2011-2015	168
Table 14.4	Completed Researches by Sector, Calabarzon, 2011-2015	169

Table 14.5	Intellectual Property Rights Applications and Registrations, Calabarzon, 2013-2015	170
Figure 14.3	Strategic Framework for Advancing Technology and Innovation	171
Table 14.6	Plan Targets for Advancing Technology and Innovation	171
Chapter 15	Ensuring Sound Macroeconomic Policy	
Table 15.1	Gross Regional Domestic Product by Industrial Origin, Calabarzon (In Million Pesos at constant 2000 prices)	180
Table 15.2	Gross Regional Domestic Product by Industrial Origin, Growth Rates (In percent)	180
Table 15.3	Gross Regional Domestic Product by Industrial Origin, Percent Distribution (In percent)	181
Table 15.4	Agriculture and Fisheries Gross Value Added, Growth Rate (In percent)	182
Table 15.5	Industry Gross Value Added, Growth Rate (In percent)	182
Table 15.6	Services Gross Value Added, Growth Rate (In percent)	183
Table 15.7	Per Capita Gross Domestic Product in Pesos (at constant 2000 prices)	183
Table 15.8	Employment, Unemployment, and Underemployment Rate, 2011-2015 (In percent)	184
Table 15.9	Poverty Incidence Among Families and Among Population by Region, 2009-2015 (In percent)	185
Table 15.10	Poverty Incidence Among Families and Among Population by Province, Calabarzon, 2009-2015 (In percent)	185
Figure 15.1	Calabarzon Least Developed Municipalities (based on 2012 Small Area Poverty Estimate – Poverty Incidence Among Population, in percent)	186
Table 15.11	Inflation Rate, Calabarzon, 2011-2015 (In percent)	187
Table 15.12	Number of Offices by Type of Bank, Calabarzon, 2012-2015	187
Table 15.13	Number of Banks in Calabarzon by Type, by Province, 2014-2015	188
Table 15.14	Total Assets by Type of Bank, Calabarzon, 2012-2015 (in billion pesos)	188
Table 15.15	Bank Density Ratio in Calabarzon, 2014-2015 (In percent)	188
Table 15.16	Number of Automated Teller Machines, Calabarzon, 2012-2015	189
Table 15.17	Deposit Liabilities by Type of Bank, 2013-2015 (in billion pesos)	189
Table 15.18	Net Loan Portfolio by Type of Bank, Calabarzon, 2013-2015 (in billion pesos)	189
Table 15.19	Microfinance Statistics, Calabarzon, 2013-2015	190

Table 15.20	Number of Registered Cooperatives per Year/Type, 2009-2015	190
Table 15.21	Total Cooperative Assets Based on Encoded AFS (in billion pesos)	192
Table 15.22	Revenue Type, Actual Collections, Calabarzon, 2013-2015 (in million pesos)	192
Table 15.23	Revenue Type, Targets, Accomplishments, Calabarzon, 2013-2015 (in million pesos)	192
Figure 15.2	Strategic Framework to Ensure Sound Macroeconomic Policy	193
Table 15.24	Plan Targets for Ensuring Sound Macroeconomic Policy, 2017-2022	194
Chapter 16	Leveling the Playing Field	
Figure 16.1	Strategic Framework for Leveling the Playing Field	208
Chapter 17	Attaining Just and Lasting Peace	
Figure 17.1	Conflict-prone Areas in Calabarzon, 2017	216
Figure 17.2	Strategic Framework for Attaining Just and Lasting Peace	217
Table 17.1	Plan Targets to Attain Just and Lasting Peace	217
Chapter 18	Ensuring Regional Security, Public Order, and Safety	
Figure 18.1	Comparative Crime Volume, Calabarzon, 2014-2015	222
Figure 18.2	Crime Volume from PNP Blotter Calabarzon, 2015	222
Figure 18.3	Distribution of Index Crimes from PNP Blotter, Calabarzon, 2015	222
Figure 18.4	Strategic Framework for Ensuring Regional Security, Public Order And Safety	224
Table 18.1	Plan Targets to Ensure Regional Security, Public Order and Safety	224
Chapter 19	Accelerating Infrastructure Development	
Table 19.1	National Road Length by Surface Type, By Province, Calabarzon, 2015	230
Table 19.2	National Road Condition, Calabarzon, 2015	230
Figure 19.1	Calabarzon National Road Network, 2016	230
Figure 19.2	Length of Paved National Roads, 2011-2015	231
Figure 19.3	Length of Permanent Bridges Along National Roads (l.m.), 2011-2015	231

Figure 19.4	Number of Permanent Bridges Along National Roads, 2011-2015	231
Table 19.3	Length of Existing Expressways, Calabarzon, 2016	232
Figure 19.5	Map of Existing and Proposed Calabarzon Expressways	232
Figure 19.6	Map of PNR Railway Network	233
Table 19.4	Number of Shipcalls, Total Cargo Throughput and Passenger Traffic Performance, 2011-2015	234
Table 19.5	Increase in Irrigated Area (in hectares)	236
Table 19.6	Performance of New Irrigated Areas (in hectares)	236
Table 19.7	Service Connection and Production Performance of Water Districts by Province, 2014 -2015	237
Table 19.8	Existing Power Plants in Calabarzon, 2015	239
Table 19.9	Calabarzon Additional Power Plant Capacities, January 2015	240
Table 19.10	Status of Household Electrification Regionwide, 2014-2015	240
Table 19.11	Status of Energization: Household Coverage and Energized, Calabarzon, 2011-2015	240
Table 19.12	Calabarzon ICT Infrastructure, 2012-2014	241
Table 19.13	No. of SHS Buildings, PSIP Classrooms, BUB Projects, 2014-2015	243
Table 19.14	No. of Government and Private Hospitals, Authorized Bed Capacity, 2015	243
Table 19.15	HFEP Implementation, 2014-2015	244
Table 19.16	Social Welfare/Protection Facilities, Calabarzon, 2015	244
Figure 19.7	Strategic Framework for Accelerating Infrastructure Development	246
Table 19.17	Plan Targets to Accelerate Infrastructure Development, 2017-2022	247

Chapter 20 Ensuring Ecological Integrity, Clean and Healthy Environment

Table 20.1	Management of Forest Resources and Protected Areas in Calabarzon, 2012-2015	260
Table 20.2	Secured Land Tenure in Agricultural A&D and Residential Lands, 2012 to 2015	260
Figure 20.1	Calabarzon Built-up Area Overlay with Susceptible Areas to Hydrometeorological Hazards	264
Figure 20.2	Calabarzon Built-up Area Overlay with Susceptible Areas to Earthquake Hazard	265
Figure 20.3	Strategic Framework to Ensure Ecological Integrity, Clean and Healthy Environment	266

Table 20.3	Plan Targets to Ensure Ecological Integrity, Clean and Healthy Environment	267
------------	--	-----

Chapter 21 Plan Implementation and Monitoring

Table 21.1	Regional Coordination Mechanism for Plan Implementation and Monitoring	284
------------	--	-----

PART I

INTRODUCTION



01 The Long View

The Long View

The Calabarzon Regional Development Plan (RDP), 2017-2022 is anchored on country's long-term vision or *AmBisyon Natin 2040* as well as the image that Calabarzonians desire the region to be in 2046 as enunciated in the Regional Physical Framework Plan (RPFP), as follows:

"The country is a prosperous middle class society where no one is poor. People live long and healthy lives and are smart and innovative. The Philippines is a high-trust society where families thrive in vibrant, culturally diverse, and resilient communities." _ *AmBisyon Natin 2040*

"Calabarzon: A region of vibrant economic diversity and vitality with progressive, well-planned town clusters inhabited by God-loving people enjoying globally competitive, balanced and resilient ecosystems." _ *RPFP, 2017-2046*

The current RDP is the first set among a series of six-year plans to pursue *AmBisyon Natin 2040* and the RPFP vision in 2046 (Fig 1.1). The RDP is intended to be used by stakeholders and partners as a tool to build on the region's promise to become the most livable industrial region in the country where no one is poor.

As the region's development blueprint for the next six years, the CALABARZON RDP must anchor on the national long-term perspective to aid development managers in identifying ambitious interventions that would address recurring

development issues regardless of the term limits of elected officials. While short and medium-term plans are important, continuity of initiatives is as important as addressing emerging concerns that are brought about by recent trends and phenomena. Thus, each medium-term plan is expected to build on the successes of the previous plan while addressing the remaining gaps. For the current plan, the focus is for the region to contribute toward laying down the foundations for inclusive growth, a high-trust society, and a globally competitive knowledge economy.

Figure 1.1 The RDP within the Context of the Long-Term Development Plan



The RDP shall contribute toward realizing the national vision by pursuing initiatives along the four identified areas for strategic action for the next 25 years, as follows:

1. Toward building a prosperous, predominantly middle-class society where no one is poor, create the conditions for the growth of enterprises that generate high-quality jobs and produce high-quality goods and services at competitive prices. Give priority to enterprises in sectors that produce goods and services that meet *AmBisyon Natin 2040* (i.e., for which there is a domestic market) and those that are able to participate in global trade. Nine priority sectors with the greatest potential to contribute to realizing *AmBisyon* have been identified:
 - Housing and urban development manufacturing (transport, food processing, housing-related goods and services)
 - Connectivity (bridges, airports, roads, communication, ports)
 - Education services
 - Financial services
 - Health services
 - Tourism-related services
 - Agricultural development
 - Countryside development
2. Toward promoting a long and healthy life, a range of programs starting with quality and affordable universal health care and social protection is required.
 - Reduction of infant mortality rate through quality maternal health and child care
 - Reproductive health and family planning programs
 - Eradication of malnutrition programs and facilities to encourage development of healthy lifestyles
 - Efficiently managed natural resources and environment
3. Toward becoming smarter and more innovative, people need to expand their skill set in order to adapt to rapidly changing technology and work requirements.
 - Education system should equip citizens with knowledge and skills necessary to occupy high-

- productivity jobs, while remaining adaptable to the changing needs of the economy.
- The K to 12 Program provides a foundation for a smarter society, and it should continue.
 - Strong intellectual property rights framework to encourage Filipinos to generate innovative products and ideas.
 - A mature R&D (research and development) program
4. Toward building a high-trust society, government must be people-centered, effective, and accountable.
- Public goods and services should be efficiently delivered by a professional bureaucracy, including at the local level
 - Promote competition and inclusiveness in the political system through major political and electoral reform.
 - Pursue the peace agenda that accompanies a long-term development agenda for armed conflict-threatened areas
 - Create social and cultural awareness and develop in every Filipino a deep appreciation of the Filipino nation.

For the region to contribute effectively to the achievement of the national vision, the preparation of the RDP used broad-based participatory approaches. The formulation took off from the issuance of MC No. 12 s. 2016 “Directing the Formulation of the Philippine Development Plan and the Public Investment Program or the Period 2017-2022” and Executive Order 325 s. 1996 (sec. 12e) which directs the RDCs

to prepare and submit development plans to the President. Following the planning guidelines set by the National Economic and Development Authority (NEDA), the RDC Committees were convened as planning committees (PCs) to conduct sectoral assessment of the previous plan period and finalize the regional and sectoral development frameworks. The PCs are multi-sectoral in composition, with representatives from the government such as line agencies, government-owned and controlled corporations (GOCCs), state universities and colleges (SUCs), and local government units (LGUs), private or business institutions, and civil society organizations (CSOs).

Government, private, and civil society organizations that are not members of the RDC committees were invited to provide inputs, which provided new and broader perspectives that are necessary in the refinement of the sectoral development frameworks.

Like the previous RDPs of the region, the formulation of the Calabarzon 2017-2022 RDP is defined by a three-fold process that utilizes top-down, bottom-up, and horizontal perspectives. The top-down perspective in RDP formulation was provided by the *AmBisyon Natin 2040*, the National Spatial Strategy (NSS), the Philippine Development Plan (PDP), and President Rodrigo Duterte’s 0 to 10 Socio-economic Agenda.

The bottom-up perspective, on the other hand, is derived from the Provincial Development and Physical Framework Plans (PDPFP) and Executive-Legislative Agenda (ELA) of its five provinces,

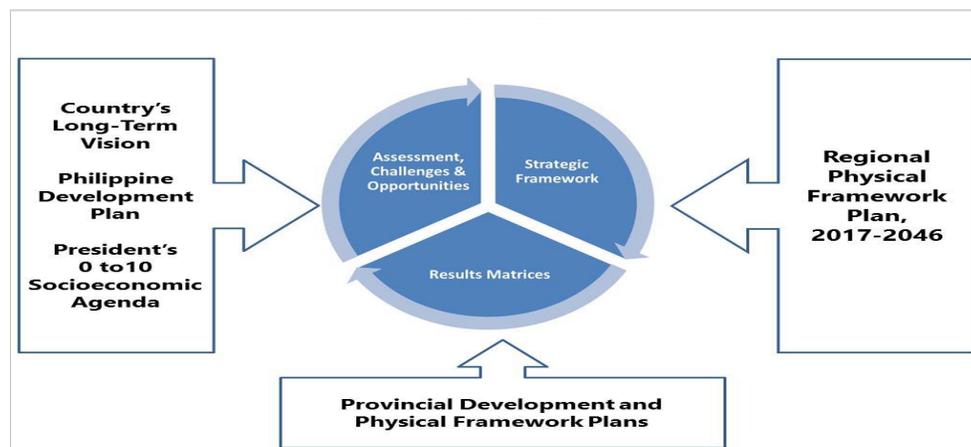
namely: Cavite, Laguna, Batangas, Rizal and Quezon. Through the representatives of the League of Cities and Municipalities as well as the local planning and development coordinators, grassroots level concerns are incorporated in the plan.

document review and stakeholder consultations. With this approach, it is ensured that the RDP contributes to the realization of the national vision but at the same time addresses concerns peculiar to the region.

The horizontal perspective was provided by an assessment of the socio-economic performance of the region using historical review, trend and shift-share analysis, and the use of planning standards that are validated and refined through continuous

The RFPF, together with the *AmBisyon Natin 2040*, provides the long-term perspective of the plan. Figure 1.2 illustrates the three-fold processes utilized in crafting the plan.

Figure 1.2 Regional Development Plan, 2017-2022



The RDP has adopted the same format of the PDP, i.e. seven parts and 21 chapters, to facilitate review of plan consistency. Part I consists of the introduction which discusses the long-term vision, the socio-economic and demographic trends, prospects and challenges, spatial strategy, and the development framework. Parts II to VI cover the existing situation, challenges, opportunities, strategic development framework, and the results matrices related to various sectors.

such as: ensuring people-centered, clean and efficient governance; pursuing swift and fair administration of justice; and promoting Philippine culture and values.

Part II includes the strategies on Enhancing the Social Fabric (*“Malasakit”*),

Part III includes the Inequality-Reducing Transformation (*“Pagbabago”*) strategies, such as: expanding economic opportunities in agriculture, forestry fisheries, industry and services; accelerating human capital development; reducing vulnerability of individuals and families; and building safe and secure communities.

Part IV tackles Increasing Growth Potential (*“Patuloy na Pag-unlad”*), which includes reaching the demographic dividend, and vigorously advancing science, technology and innovation.

Part V deals with Enabling and Supportive Economic Environment, which discusses the region’s contributions towards achieving a sound macroeconomic stability and promoting competition.

Part VI presents the Foundations for Sustainable Development, which tackles the region’s strategies for just and lasting peace; ensuring security, public order and safety; accelerating infrastructure development; and ensuring ecological integrity, and clean and healthy environment.

Part VII discusses plan implementation, coordination, monitoring and evaluation.

02

Global and
Regional Trends
and Prospects

Chapter 2

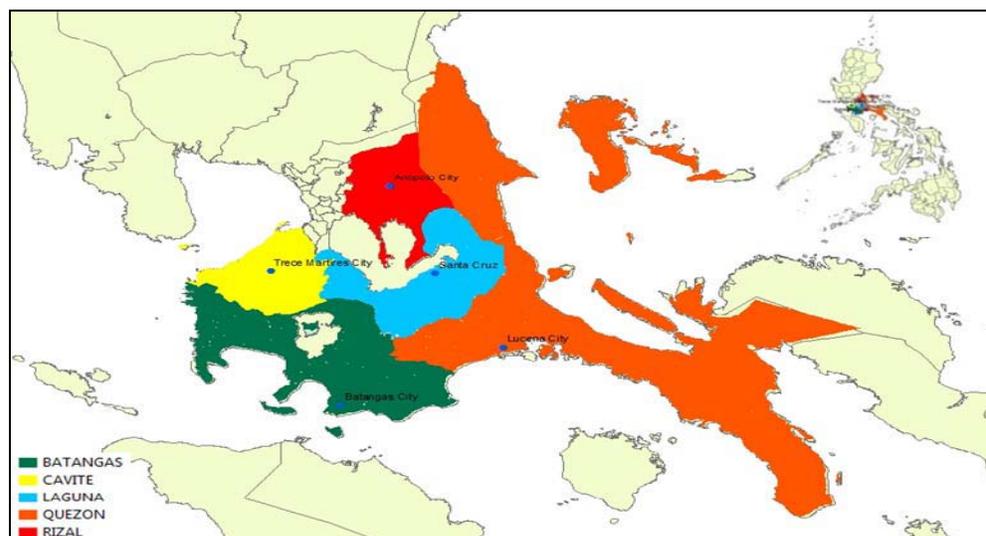
#

Global and Regional Trends and Prospects

Calabarzon proves to be a good alternative for investors because of its huge population size, hub of manufacturing industries, abundance of agricultural produce and raw materials, proximity to NCR, and strategic location (Figure 2.1) that serves as gateway from the south. These investors include multi-national companies, who would like to locate outside but near the NCR. Bolstered by the presence of top universities and international research institutions and the commitment of the academe and industry to strengthen their partnerships, the region is expected to provide the manpower skills necessary for the industries.

The readiness of the region as an investment destination is reflected in the Cities and Municipalities Competitiveness Index (CMCI) that is always topped by Calabarzon cities and municipalities. The prioritization of national road projects within the region, the rehabilitation of PNR and the development of ports in Batangas, and the opening of future special economic zones in Mauban, Infanta, Real, Atimonan, Tiaong, and Pagbilao, Quezon would reinforce the economic growth rate in the region.

Figure 2.1 Location Map, Calabarzon Region



The deliberate efforts of the private sector and the local governments to increase the quality of livability of the cities and towns, coupled with the expansion of residential and commercial hubs in the region point to the recognition of Calabarzon as the alternative to NCR for residential and commercial districts that offer better quality of life. Livability, in turn, attracts population with higher human capital.

Given the demographic and socio-economic trends, the region is expected to improve its share in the GDP, ensure the availability of jobs, and reduce poverty especially if the following opportunities are harnessed:

Tourism and Infrastructure

The natural features, current tourism-related facilities, and convergence of the government and the private sector in tourism development initiatives indicate opportunities for Calabarzon as a world-class destination. The distinct tourist offerings of each of Calabarzon's five provinces would provide diverse and unique tourism experience that will make visitors stay longer in the region.

Cavite is home to famous heritage sites, while the landscapes and seascapes of Laguna, Quezon, Batangas, and Rizal make them natural sites for eco-tourism. The provinces' tourism sites are also supported by the strong presence of arts and crafts trades. Recently, Balesin Island in Quezon Province has been converted into an economic tourism zone, which is expected to contribute to the tourism economy of the province. Additionally, some areas in

the region are emerging pilgrimage destinations. The following initiatives will provide impetus to tourism:

- completion of the tourism cluster plans for Real-Infanta-General Nakar (REINA), the Polillo Group of Islands, Alabat Island, Bondoc Peninsula and other areas of the region
- implementation of the La Casa (Laurel, Cuenca, San Nicolas and Sta. Teresita, Batangas) Tourism Master Plan
- product development in support of tourism
- development of the region's culinary arts and crafts industry

The region has better and wider roads and seaports but they need to be modernized to encourage more tourist arrivals. The ongoing rehabilitation of the PNR is expected to help ease problems related to land transportation going to and within the region. The improved transport infrastructure is complemented by tourism-related auxiliary facilities, such as accommodations, tourist police, information centers, and better banking services.

Manufacturing and Logistics

The preparation of roadmaps for selected manufacturing industries as well as the related interventions that are focused on value-adding would boost the sector and fortify the region's position as the nation's bastion for the industry. Encouraging the expansion of industrial parks in other areas

of the region is one means to scale up value-adding through manufacturing.

The adoption and eventual implementation of the National Logistics Master Plan (NLMP) would greatly benefit the region. Interventions related to logistics may initially focus on preparing and improving the requisite infrastructure for the transport of goods. Traversing Calabarzon is the SLEX, considered to be the longest expressway in the country and currently undergoing improvements. Once rehabilitated, the railway system will improve land transport.

The Batangas Port currently serves as an alternative to the Manila Port as a transit point for passengers—its potential as a transshipment port for international cargo is worth exploring. Developing the port in Mauban, Quezon, which is identified as a site for economic zone, may also supplement the cargo load of the Batangas Port. Together, the ports in Quezon and Batangas can serve as crucial areas for water-based transport of products and goods into and out of Calabarzon. The presence of an airport in the region is also expected to expand available logistics options in the region.

Information Technology, Business Process Outsourcing and Creative Industries

The inclusion of the cities of Dasmariñas (Cavite), Lipa (Batangas), Sta. Rosa (Laguna) and the municipality of Taytay (Rizal) in the 10 Next Wave Cities indicates the readiness of the region for the

continued growth of the information technology and business process management (IT-BPM) sector. Information Technology (IT), Business Process Outsourcing (BPO) and Creative Industries (CI) are three interrelated fields that have significantly contributed to the growth of the Philippine economy in recent years. While the presence of IT-BPO-CI service providers was initially felt only in Metro Manila, investors in these companies have begun locating recently in alternative metropolitan areas such as Baguio, Cebu, and Davao.

The proximity of Calabarzon to Metro Manila and the presence of a highly literate population point to opportunities for the region to take its share in the BPO industry, not only in investments but also in employment opportunities.

LGUs that seek to capitalize on these opportunities have introduced industry-enticing policies, such as tax incentives to companies that hire locals. Educational institutions also realigned their curricula in anticipation of the demand that these industries may create by improving instructions on English, Communication Arts and Computer Science. Niche services in customer care, feature writing, animation, and website design, however, need to be considered as offerings for specialized training.

Agriculture/Agribusiness

Recently, the region is becoming popular for its agri-eco tourism farms and organic products. This trend is expected to continue as the campaign for healthy lifestyle intensifies. Thus, support for agri-

eco tourism and organic farming initiatives will be pursued.

However, the share of agriculture in the region's economy continues to decline; hence, efforts for the continued growth of the agri-business sector must be intensified.

The implementation of programs to address the *Cocolisap* is expected to boost the coconut industry and create more jobs for the farmers. Convergence of all sectors, however, is needed to bring back the region on the number one spot for coconut production. Expected to boost the sector is the introduction of the global value chain approach (GVCA) in identifying priority interventions that will enhance the competitiveness of selected commodities.

Other Development Prospects

Initiatives on good governance would positively impact on the growth and development of the region. The region has made significant headway on mainstreaming various concerns in the planning investment programs and Monitoring and Evaluation (M&E) that make the region more competitive as an investment destination and a place to live.

As the region with the highest number of Overseas Filipinos (OFs), the region has embarked on mainstreaming migration and development and established migration centers in all provinces to ensure that remittances are diverted to productive investments.

There are also continuing efforts to mainstream disaster risk reduction and climate change adaptation (DRR-CCA) to improve the preparedness and resiliency of the regional economy and communities to natural/environmental shocks. In addition, initiatives on Gender and Development (GAD) and rights-based planning would encourage government agencies to have bias for the poor and the vulnerable sectors, making inclusive growth more possible to achieve.

Continuous advocacy on human rights-based approach of development planning for all government entities and development partners to ensure that the state is able to provide the entitlements of claimholders.

The region is also positioning itself as a possible site of the new national government center (NGC). Lucena and its adjacent municipalities are being eyed as the possible location of the NGC. Locating the NGC in Quezon province would spur the development especially in the Southern part of the region and the Bicol region.

Internationally, the ASEAN Economic Community would open opportunities in transport, logistics and other industries where the region has created its niche.

03

Overlay of Economic
Growth, Demographic
Trends, and Physical
Characteristics

Overlay of Economic Growth, Demographic Trends, and Physical Characteristics

Political Subdivisions

Calabarzon is composed of five (5) provinces, namely: Batangas, Cavite, Laguna, Quezon and Rizal; 25 congressional districts; 19 cities; 123

municipalities; and 4,011 barangays. The increasing number of cities reflects the rapid urbanization taking place in many parts of the region. The politico-administrative subdivision of Calabarzon per province is presented in Table 3.1.

Table 3.1 Calabarzon Politico-Administrative Subdivision, 2015

PROVINCE	CONGRESSIONAL DISTRICTS		CITIES		MUNICIPALITIES		BARANGAYS	
	2010	2015	2010	2015	2010	2015	2010	2015
Batangas	4	6	3	3	31	31	1,078	1,078
Cavite	7	7	4	7	19	16	829	829
Laguna	4	4	4	6	26	24	674	674
Quezon	4	4	2	2	39	39	1,242	1,242
Rizal	4	4	1	1	13	13	188	188
Total	23	25	14	19	128	123	4,011	4,011

Source: DILG IV-A

Population and urbanization trends, transportation and settlements

The population of Calabarzon in 2015 reached 14.4 million, which is higher than the NCR population by 1.53 million. With an annual growth rate of 2.58 percent between 2010 and 2015, the region’s population is expected to double in 2042, a rate that is much faster than that of the Philippines and NCR. The region’s population density of 888 persons per

square kilometer is much lower than NCR’s 20,247 persons per square kilometer, indicating its potential for expansion.

Population growth in the region is attributed mainly to in-migration, population momentum, relatively higher birth rate, and increasing life expectancies.

The direction of rapid population movement was most evident towards the highly urbanizing and industrializing areas of the region, particularly Cavite, Laguna and Rizal. Calabarzon serves as a catch

basin for Metro Manila's population and industry. This is reflected in the population density of Cavite at 2,857 per square kilometer, Rizal at 2,204 per square kilometer, and Laguna at 1,725 per square kilometer. A geospatial analysis shows that the population of Calabarzon is centered somewhere in Laguna and is moving towards Manila.

Until the 1970s, Calabarzon remained predominantly rural. It was in the 1980s when urbanization increased, a trend that continues up to this date.

Urbanization in Calabarzon became more evident with improvements in its infrastructure, roads, transportation and telecommunication facilities, making the region the industrialization showcase of the Philippines. As a result, industrial and technoparks, commercial complexes and residential developments began to emerge with increased intensity in Calabarzon. To date, the provinces of Rizal, Cavite and Laguna have higher percentage of population in urban areas compared to the regional average. Thus, Calabarzon remains to be attractive for development projects such as residential subdivisions, sports and leisure centers, and industrial complexes.

Transportation and Settlements

The growth and distribution of settlements in Calabarzon were influenced primarily by the evolution of the region's transportation system. During the Spanish Era, the major mode of travel was through water transport in vehicles such as steamships, bancas and "cascos". As a

result, villages proliferated along Manila Bay, Laguna Lake and its tributaries, including the Pasig River. Morong, Pasig, Kawit and even Manila developed early as settlement areas because they were accessible by boat. For inland travel, carabaos and "calessas" remained the preferred mode of transportation.

During the American era, the railroad system was improved and extended from Northern (San Fernando, La Union) to Southern Luzon (Legaspi, Albay). It was also during this time when Filipinos began to use automobiles instead of horse-drawn carriages, although the use of these vehicles was limited within urban limits with paved roads.

During its heyday, the railway system in the early 1940s was defined by an elaborate network of trains running a total track length of 1,140 kilometers. The railways made long-distance travel and the transport of goods to and from Manila convenient, and also helped develop new growth centers, such as Calamba and San Pablo in Laguna; Lucena in Quezon; and Daet, Naga and Legaspi in the Bicol Region. Due to this train system, a new kind of prosperity was felt in industries related to sugar, coconut, abaca, livestock, dried fish and high value crops. It also became the preferred mode of transport for Laguna and Quezon-based commuters employed in Manila.

After the Second World War, the effective route of the railway system was reduced to a mere 452 kilometers, particularly the Bicol line. The quality of railway service began to decline and eventually became unreliable. The system was also severely

damaged by floods and typhoons, resulting in the closures and halting of train operations in several main line sections.

The operation of the railway system was also severely affected by the invasion of informal settlers within the system's right-of-way.

Efforts to rehabilitate the Main South Line in 1990 and the Commuter Line to Carmona in 1995 were undermined by typhoon Rosing and super typhoons Milenyo and Reming. The decline of the railway system gave rise to the primacy of and preference for road-based transport within and outside Calabarzon.

With the establishment of settlements in inland areas came a parallel development in the inland road system. In the 1970s, municipalities such as Taytay, Cainta and Antipolo in Rizal; San Pedro, Binan and Sta Rosa in Laguna; and Bacoor and Imus in Cavite became the catchment area of Manila sprawl. “Bedroom communities” or residential subdivisions in these towns began to sprout in response to the needs of the Manila working population. In the same period, resettlement areas for informal settlers were established in the Cavite towns of Dasmariñas, General Mariano Alvarez and Carmona.

The emergence of these new communities heralded a demand for road-based, instead of rail-based, transport such as buses and cars. In the late 1980s, utility vehicles known as Fiera (regardless of manufacturer) received widespread popularity as a transportation mode between Metro Manila and Rizal, and Cavite and Laguna. Jeepneys also became

popular for inter- and intra-regional travel, offering a more affordable option to commuters.

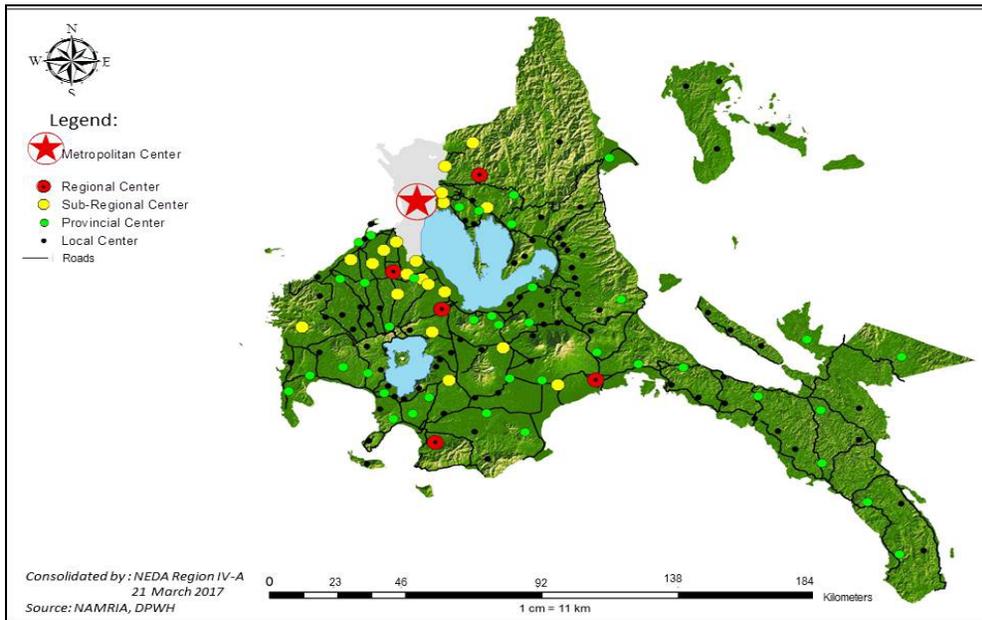
In the 1990s, the establishment of numerous industrial estates and residential housing projects catering to the needs of Calabarzon and Manila workers triggered the surging growth in the Cavite-Laguna (CA-LA) metropolitan area. The parallel increase in the presence of convergence services such as schools, commercial centers, hospitals and recreational facilities furthered the spread of settlements in the region.

Hierarchy of Functions and Settlements

The map in Figure 3.1 provides a qualitative indication of the kind of market and, therefore, the role of a settlement based on population size. In general, larger populations yield wider scale of activities, and more varied and complex activities because of greater opportunities for division of labor and specialization.

The map shows that there are only a few settlements in the region classified in the upper tier or regions with big population sizes that perform complex and major roles.

Figure 3.1 Hierarchy of Functions and Services



Using the typologies of settlements set by the NSS, the current settlements patterns of the region are described as follows:

The International (or potential international) centers comprise of around 1.2 million and larger population. For IV-A, these areas are San Pedro-Calamba, Bacoor-Dasmaringas, Cainta-Antipolo.

These centers have or possess a strong potential to have direct international linkages as indicated by the presence of international airports, major central business districts that serve national or international companies, and the availability of globally branded and high-end commodities (e.g. luxury automobiles).

The Regional centers have population ranging from 120,000-1.2 million. This is a broad spectrum of centers, which have

markets that serve well beyond their local boundaries. These centers are able to support regional branches of national-level franchises and services (e.g. SM regional malls, a range of automobile dealerships, deluxe hotels, call centers), base ports, and residential subdivisions of Metro Manila-based developers. For Calabarzon, these are Antipolo City, Dasmaringas City, Calamba City, Batangas City and Lucena City.

The Subregional Centers are relatively large settlements that form the market catchments of regional centers. They also connect to and serve as service centers of smaller provincial and local centers. The areas have a minimum population size of 120,000. As subregional centers grow, they tend to merge with adjacent regional centers to form even larger metropolitan areas. A total of 20 settlements in the region are included in this category.

The Provincial centers have population from 50,000-120,000. In general, these centers have extended city-municipal service coverage but do not go beyond their host province. These centers can support some national chains such as McDonalds, DHL distribution centers, as well as small regional or provincial airports, hospitals and non-deluxe hotels. There are 39 settlements in this category.

The Local centers have population below 50,000. The most obvious indicator is the presence of some form of food retail—from the local *carinderia* to a Jollibee fastfood restaurant—and a local health clinic or similar facility. More than half (54%) of the region's settlements are in this fifth tier, comprised of local or rural centers. The smallest settlement is the island municipality of Jomalig in Quezon with a population of 6,884 based on the 2010 census.

Overall Spatial Strategy

Centers, Corridors and Wedges (CCW) approach

To achieve the region's vision, goals, and development outcomes, a sound spatial strategy is imperative. In 2011, the CCW approach was adopted as the region's spatial strategy (RSS) where various settlements in the region were grouped according to the said categoriesⁱ. The criteria for identifying and determining the clusters include contiguity, complementation of roles, growth potentials, and similarities of issues and concerns. The CCW seeks to direct and

stimulate development and growth from west to east, as well as strengthen north-south development and access corridors. This approach links urban and rural populations better through greater interplay of economic activities that, in effect, can generate additional income and employment opportunities.

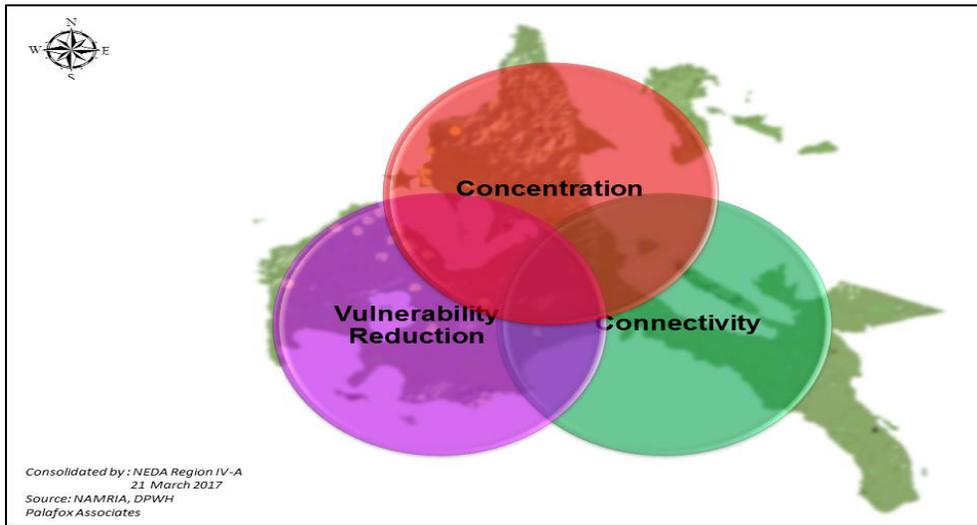
Through the CCW approach, centers or clusters which are presently heavily populated shall be further developed to enhance their roles as administrative centers and hubs of economic activities for industries, commerce, finance and services. The corridor areasⁱⁱ, on the other hand, shall be developed along the existing major transport routes in the region while the wedges shall be grouped to form smaller, functional clusters to facilitate planning and implementation of programs and projects, with a focus on agri-modernization and settlements developmentⁱⁱⁱ.

Concentration, Connectivity and Vulnerability Reduction (CCVR)

The CCW is enhanced to be consistent with the National Spatial Strategy (NSS) and the Luzon Spatial Development Framework (LSDF).

As espoused by the NSS and the LSDF, the following are considered in updating the RSS: (1) Understand the population size, activities and spatial distribution of population; (2) Identify and understand trends in terms of the size, activities and spatial distribution of population including growth scenarios and related issues; and (3) Identify and discuss specific spatial strategies.

Figure 3.2 Three Policy Areas



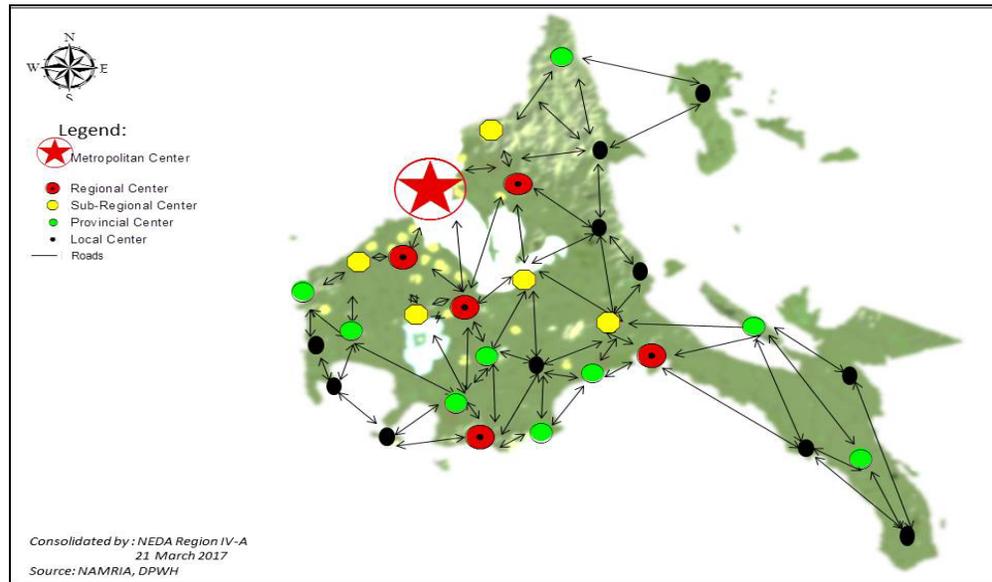
As a whole, the RSS seeks to concentrate (**concentration**) urban growth in selected centers and corridors within the region to increase the scale and improve the efficiency of services, to define a larger network of centers that physically and functionally integrate the various markets, to reduce conflicts among competing land uses (**connectivity**), and to provide resiliency and reduce vulnerability (**vulnerability reduction**).

The strategy promotes concentration to increase the overall densities of settlements, thereby increasing access to the benefits associated with urbanization; increase innovation, creativity and economic activities; greater opportunities for employment and poverty reduction; availability of a larger variety and higher levels of services; and, reduced encroachment into agricultural land and other environmentally-sensitive or protected areas.

Five-Tier Network of Settlements

Consistent with the population and economic trends, the CCW strategy is refined and a five-tier network or hierarchy of settlements is proposed. The five-tier network of settlements proposes growth bias towards the upper part of the hierarchy, which are the settlements belonging to the regional, sub-regional and to a certain extent the provincial centers. The proposed hierarchy follows the principle of concentration, i.e. the larger the settlement in terms of population, the greater the concentration, and therefore the higher the level in the hierarchy.

Figure 3.3 Five-Tier Network/Hierarchy of Settlements



Since Calabarzon belongs to the Luzon island cluster, its center, together with the other seven regions in Luzon, is NCR.

Following the NSS, not all settlements, however, are positioned in the proposed hierarchy according to this general principle. Some settlements with lesser population are positioned higher in the hierarchy as they play strategic roles such as: enhance the delivery of services in lagging areas; promote tourism; and establish transportation routes that are critical for economic integration and vulnerability reduction.

The growth bias towards the upper tier is also in recognition of the role of cities as venues and drivers of growth and poverty reduction. As shown in the population trends, continued rural-urban migration may be expected but the rate will decline as more and more people are already living in urban areas. This strategy is expected to contribute in minimizing land conversion and encroachment into protected land and disaster-prone areas.

Table 3.2 Proposed Hierarchy of Settlements

ISLAND GROUP CENTER	REGIONAL CENTERS (5)	SUB-REGIONAL CENTERS (20)	PROVINCIAL CENTERS (39)		LOCAL CENTERS (78)
Metro Manila	Antipolo City	Bacoor City	Angono	Mulanay	Cavite City and all other municipalities
	Batangas City	Baras	Atimonan	Nagcarlan	
	Calamba City	Binan City	Balayan	Naic	
	Dasmariñas City	Cabuyao City	Bauan	Pagbilao	
	Lucena City	Cainta	Bay	Pililla	
		GMA	Calaca	Rosario (Batangas)	

ISLAND GROUP CENTER	REGIONAL CENTERS (5)	SUB-REGIONAL CENTERS (20)	PROVINCIAL CENTERS (39)		LOCAL CENTERS (78)
		General Trias City	Calatagan	Rosario (Cavite)	
		Imus City	Calauag	San Francisco	
		Lipa City	Calauan	San Jose	
		Nasugbu	Candelaria	San Juan	
		Rodriguez	Carmona	San Pascual	
		San Mateo	Catanuan	Santa Cruz	
		San Pablo City	Gumaca	Taal	
		San Pedro City	Infanta	Tagaytay City	
		Santa Rosa City	Kawit	Tagkawayan	
		Sariaya	Lemery	Tanay	
		Silang	Lopez	Tayabas City	
		Tanuan City	Los Banos	Tiaong	
		Tanza	Mauban	Trece Martirez City	
		Taytay	Morong		

The table shows the proposed hierarchy of settlements based on the current role they play as well as the demographic and socio-economic trends discussed earlier.

The five regional centers in 4A, namely: Antipolo City, Batangas City, Calamba City, Dasmariñas City and Lucena City serve as regional markets and service centers to several provinces. Most of these areas have direct linkages to Metro Manila, whether by land, air, or sea travel. While Batangas City and Lucena City are not directly linked to NCR, they serve as international and local gateways to the seaports. Likewise, Calamba City is the existing administrative regional center.

The five settlements were selected to be part of the network of regional centers in the country primarily because of their existing or potential market-service center size and/or strategic location. The regional centers are intended to improve internal economic integration as well as establish multiple linkages that provide redundancy and reduce vulnerability.

Metro Dasmariñas, Metro Antipolo, Metro Calamba and Metro Batangas form part of the regional corridor consisting of Mega

Manila that serves as the economic heartland of the country, accounting for more than 50 percent of the country's GDP. On the other hand, metro Batangas, Metro Lucena and Metro Calapan (Region IV-B) form one cluster to have a large collective impact on South Luzon and provide a stronger link to the Bondoc Peninsula and the lagging provinces (especially the tourism destinations) of Bicol and Mimaropa. Eventually, this cluster can also serve as an entry point to Palawan.

The regional centers will benefit significantly from a metropolitan framework plan that at the least identifies a few high priority infrastructure and utility projects. In the event that the NGC is transferred to Lucena City and its adjoining municipalities, the area would attract population and diversification of services that would make it perform the functions of an international center.

Local centers are settlements that form the lowest level of the hierarchy. They generally cater to one or two local government unit. All other cities or municipalities that are not included in the higher levels are considered local centers.

Quadrant and Cluster Framework

Consistent with CCVR, settlements are grouped based on their commonalities in terms of physical configuration, roles, and socio-economic potentials and constraints to improve their viability and competitiveness in the role they are expected to perform. Figure No. 3.3 shows the centers/clusters, corridors and wedges in Calabarzon through the Quadrant and Cluster Framework Concept.

Existing urban growth centers such as Batangas City, Tagaytay City, Cavite City, and Lucena City will be reinforced. Lucena City plays a crucial part since it is the only LGU in the Calabarzon Region that has all transport modes and facilities available (i.e. seaport, feeder airport, rail, and major roads). It will stimulate the creation of various processing industries and act as an economic powerhouse of the region. Its impact on the economy will also catalyze the influx of urban development from west to east and balance the location of urbanized areas of the region.

The Infanta-Mauban-Famy Growth Triangle and the Mauban-Lucena Growth Corridor are also emerging growth centers that present viable opportunities for economic development in the eastern portion of the Calabarzon. Covering the shortest land distance from east to west is the Mauban-Lucena Growth Corridor.

Green wedges^{iv} of agri-tourism, agriculture, forests and leisure areas that have been identified in the central and western portion of the region will act as ecological

transition areas and boundaries for various development corridors.

Alongside such direction of development, the coastal areas of Laguna Lake, Taal Lake, and the east coast will be strengthened and their potentials for waterfront urban development, tourism, and transport maximized.

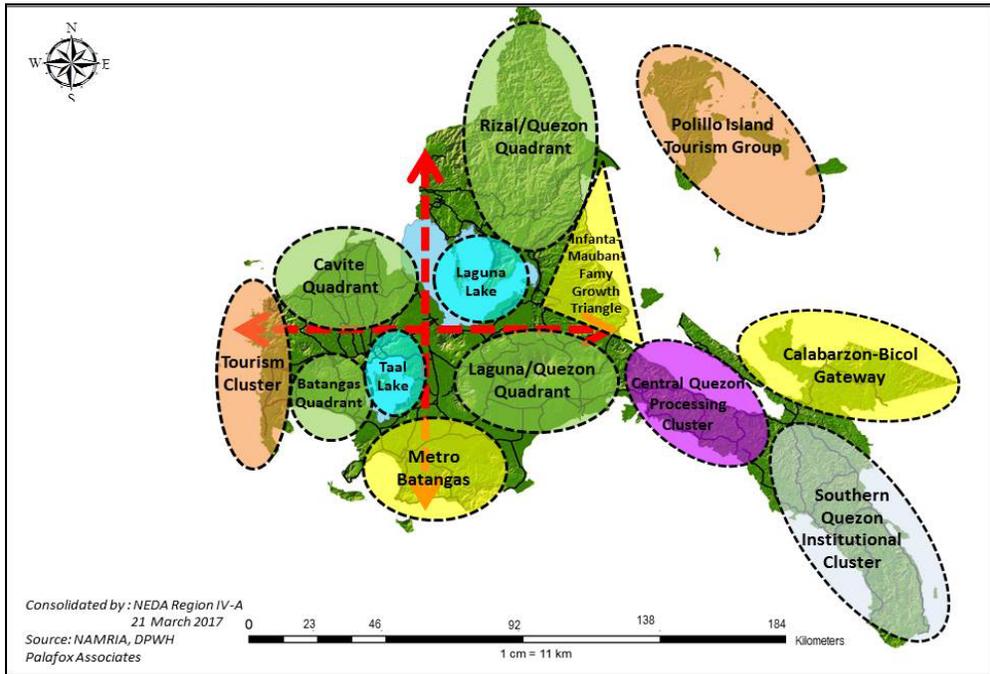
Proposed land uses, urban developments will be grouped in clusters, each borne from the predominant conditions, existing strengths, and potential opportunities of each area. Examples of proposed land uses in the west include beach and mountain tourism, waterfront mixed-uses, agropolis or highly specialized agriculture and urban development in Batangas, agro-industrial uses, and metropolitan and commercial urban development in Batangas City.

To add to the waterfront development, mixed-use commercial and production areas, and industrial land uses in the east, other uses such as forest protection zones are highlighted. Such land uses will ensure forest areas are protected and preserved.

The tourism and mariculture industries will be the predominant land uses proposed in the Polillo Island group cluster in the east.

Currently, Laguna Lake divides 66 LGUs that are grouped into five provinces, 49 municipalities, and 12 cities with an estimated population of 6 million. Water uses are also highlighted in the Framework Strategy geared towards connecting Calabarzon with Metro Manila.

Figure 3.4 Calabarzon Quadrant and Cluster Framework Concept^v



The Laguna Lake is proposed to become a water transport corridor to link the west to the east and the north to the south. To augment the proposed water transport prerogatives, the Laguna Lake can also serve as a hydro-technology production zone where certain areas will be reserved for innovative lake water treatment that will produce potable water to surrounding LGUs.

The areas surrounding the Laguna Lake can become master-planned waterfront urban developments to include housing, commerce, trade, tourism, and other urban land uses. Taal Lake, on the other hand, can serve as an ecotourism and leisure zone to maximize its tourism potentials and stimulate the development of new scenic lakeside communities. The Verde Island Passage in Batangas is also proposed as a strict protection zone that should be used for ecotourism only.

Almost all urban areas in both the west and east should go for more compact urban development rather than outwardly and inefficient sprawling urban growths. Compact development limits urban sprawl and does not eat up agricultural and forest lands. Development control is also necessary through the strict implementation of policies geared towards preventing sprawl and the proliferation of informal settlements.

Analyzing the predominant location of urbanized areas reveals an imbalance of development; the west has become the focal point of development, while urban areas in the east have much less.

The Framework Strategy prioritizes the strengthening of the west-east connections to open opportunities for eastern waterfront and logistics development and to harness the potentials for development

and growth in areas towards the Pacific Ocean from west to east^{vi}.

This west-east development direction will be pursued using a two-pronged approach:

- strengthening of east-west connections; and
- Implementation of a special area development program, a proposal to be known as the Manila Bay-Pacific Coast Metropolitan Region.

Enhance Connectivity and Strengthening East-West Connections

Roadways, ports, and airports can be linked to improve regional, international, and global competitiveness

The strengthening of east-west connections entails capitalizing on the existing infrastructure that connects and interconnects the different areas of the region. Four major transportation links in Calabarzon have been identified as having the potential to significantly contribute to the implementation of the region's spatial development strategy and are proposed for improvement and are presented in Figure 3.5.

The completion of the Markina-Infanta road as well as the construction of more east-west lateral roads shall contribute in accelerating development in the eastern part of the region. Long-term programs for implementation in the Eastern Pacific periphery are in the area of ship building, coastal marine development, among others.

Aside from the east-west connection, the north-south Manila-Batangas Economic and Industrial Corridor will also be strengthened.

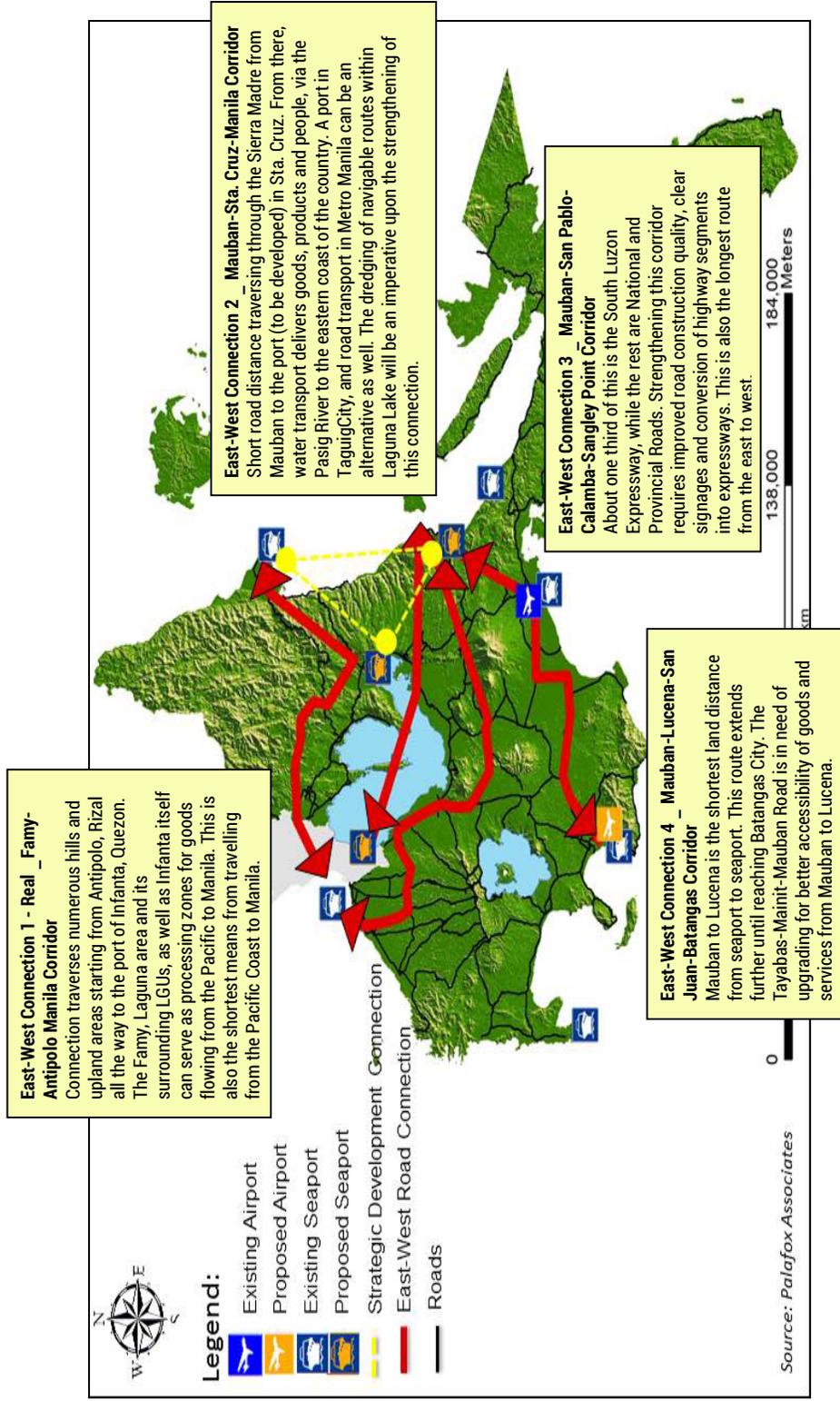
The SLEX is recommended to be linked uninterruptedly to the North Luzon Expressway (NLEX) to bolster access and the flow of goods and services from the Northern and Central Philippines to the Calabarzon Region.

Manila Bay-Pacific Coast Corridor

Growth centers and potential corridors are identified not just as “counter magnets” to congested Metro Manila, but also as a way of addressing the impacts of unavoidable urban expansion. This is also an excellent strategy to help achieve efficient forms of peripheral growth. The plan for the Manila Bay-Pacific Coast Metropolitan Region aims to appropriately apply the best practices in urban planning, real estate development, and urban governance elsewhere in the world.

The provision for growth centers and corridors are envisioned to enhance livability and global competitiveness, which addresses the “push and pull” factors and in-migration to Metro Manila and Calabarzon.

Figure 3.5 Proposed Calabarzon West-East Connections^{vii}



Promote Cluster Planning

- Clustering cities/growth centers linked by development corridors for increased competitiveness. This also includes the promotion of metro planning. In preparation for the transfer of the NGC to Lucena City, the creation of the Metro Lucena planning district is proposed.
- Creating urban development corridors for urban development and green wedges, or areas between these corridors that are dedicated for agriculture, forests and ecotourism. The establishment of ecozones lagging areas in the region such as in Mauban, Infanta, Realm, Atimonan, Tiaong, and Pagbilao in Quezon will be pursued.
- Improving metropolitan/regional cooperation between and among barangays, towns, cities, provinces, and regions
- Reforming obsolete planning and development practices, zoning, and deed restrictions
- Environmental protection
- Urban renewal and redevelopment of areas that have significant potential for development
- Cultural development which will showcase the rich traditions of the country and Filipino products
- Redeveloping and remediating brown fields, or formerly abandoned or underused lands, such as former military bases and industrial areas
- Developing leisure entertainment areas, higher density residential, commercial, and retail development, more open spaces and portside developments

- Wider citizen participation
- Making the waterfront as front-door of development, not “back of the house”
- Strengthening agricultural and food production capacities and the empowerment of agricultural workers.

Ensure participation of stakeholders and other key sectoral strategies

- Enhancing urban governance with the support and participation of the heads of Calabarzon LGUs
- Encouraging cooperation among the government, the business sector and civil society
- Promoting volunteerism in all areas of the development planning process
- Innovating the educational system through the modernization of taxable world-class university belts in growth centers to have athletic fields and research laboratories, which can spillover into business parks
- Information and Communications Technology (ICT) enabled development in growth centers
- Poverty alleviation through the provision of jobs
- Providing infrastructure to connect cities and growth centers

Prioritize Ports Development

Ports and their surrounding areas are havens for business ventures, manufacturing, storage and processing. With ports along the Pacific, trade to and from the Philippines will be more

accessible to the Americas compared to Manila, Singapore and Hong Kong.

In addition, it will be more cost-efficient for sea cargo vessels and ocean freight liners to dock on the east coast than to travel around to the west coast as its port of call. Mauban and Infanta are recommended to be developed as port areas in the east. The development of the port in Mauban will support the planned establishment of ecozone in the area.

The preceding discussion presents the overall or regional spatial development strategy for Calabarzon. However, there are crucial principles that should govern the implementation of this strategy especially in urban areas.

In order to ensure the realization of the vision of the region, the following principles and strategies^{viii} must be adhered to:

- promotion of mixed-use and multi-use communities
- appropriate land use management
- adoption and implementation of good urban design principles
- development of Laguna de Bay as Metropolitan Manila's Water Gateway to Calabarzon
- ten principles for livable towns and cities

ⁱ Centers are focal points of economic activities and typically have the highest population densities, where built infrastructure are congregated and support multimodal transport. Centers are usually urban centers commonly located at the intersection of highways and have mixed land use development (i.e. commercial, retail, office and light industrial).

Corridors follow transportation arterials (e.g. highways) that emanate from the centers and are characterized by diversity, accessibility and connectivity. There are four (4) types of sub-areas within growth corridors: transit station areas, interchange areas, established neighborhood areas, and general corridor areas. Of these, transit station areas are appropriate locations for significant new growth.

Wedges are the expanses of land between corridors, where population densities decrease as a function of distance from the center. Wedges will consist mainly of low density housing, as well as a limited amount of moderate and high density housing, and supporting facilities and services. The wedge includes the green corridor areas, and the protection and production areas. The definition of centers, corridors and wedges in this document were adopted from the Charlotte City Spatial Development Plan. The interaction between urban and rural areas may be increased by integrating urban growth areas into the surrounding or adjacent rural and agricultural communities. For both urban and resource-based clusters/wedges, the centers shall be the integrating factor — serving as links in the system of distribution and exchange between urban and non-urban areas. Balanced urban and rural development shall likewise be promoted through the development of 'agropolitan' communities in the identified wedge and corridor areas of the region. An aesthetics policy and the preservation of cultural heritage shall likewise be promoted especially among LGUs who are tasked in formulating land use plans and implementing building codes.

ⁱⁱThe strategy of urban corridors, and agriculture and tourism destinations aim for a more balanced interrelationship between the urban and rural, the countryside and hinterlands, tourism, agriculture, and the development of the environment.

ⁱⁱⁱ The criteria for identifying and determining the sub-clusters include contiguity, complementation of roles, growth potentials and similarities of issues and concerns. Agri-modernization will be pursued in these clusters as this is the food base of the region. The wedge clusters are also less dense and may accommodate housing projects especially the areas that are not fit for agriculture production and are

nearer the metropolis. Some areas of the REINA, particularly the municipality of General Nakar, are potential housing sites especially with the forthcoming completion of the Marikina-Infanta Road.

^{iv}Wedges will be created to maintain agricultural, agri-tourism, ecotourism, and prime agricultural areas. The interdependence, rather than the present parasitic relationship, between agricultural and urban areas will be strengthened. High-value crops and modern farms will be created through the agropolitan approach of development.

^vCourtesy of Palafox Associates

^{vi}Poverty indicators such as household characteristics, health status, GDP distribution, poverty incidence, and access to potable water and electricity prove that areas in the eastern part of the region is underprivileged in terms of economic and social development than provinces near South China Sea. Thus, the advantage of east-west corridors will tap the potentials of the provinces in close proximity to Pacific Ocean. This will make them self-supporting in terms of jobs, investments, and housing that is balanced and sustainable. Having more controlled development in the east will also be advantageous in an ecological protection standpoint as more “eyes” will be able to monitor the forests of the Sierra Madre.

^{vii}Courtesy of Palafox Associates

^{viii} These spatial development principles and strategies were developed in partnership with the architecture and urban/environmental planning firm Palafox Associates

04

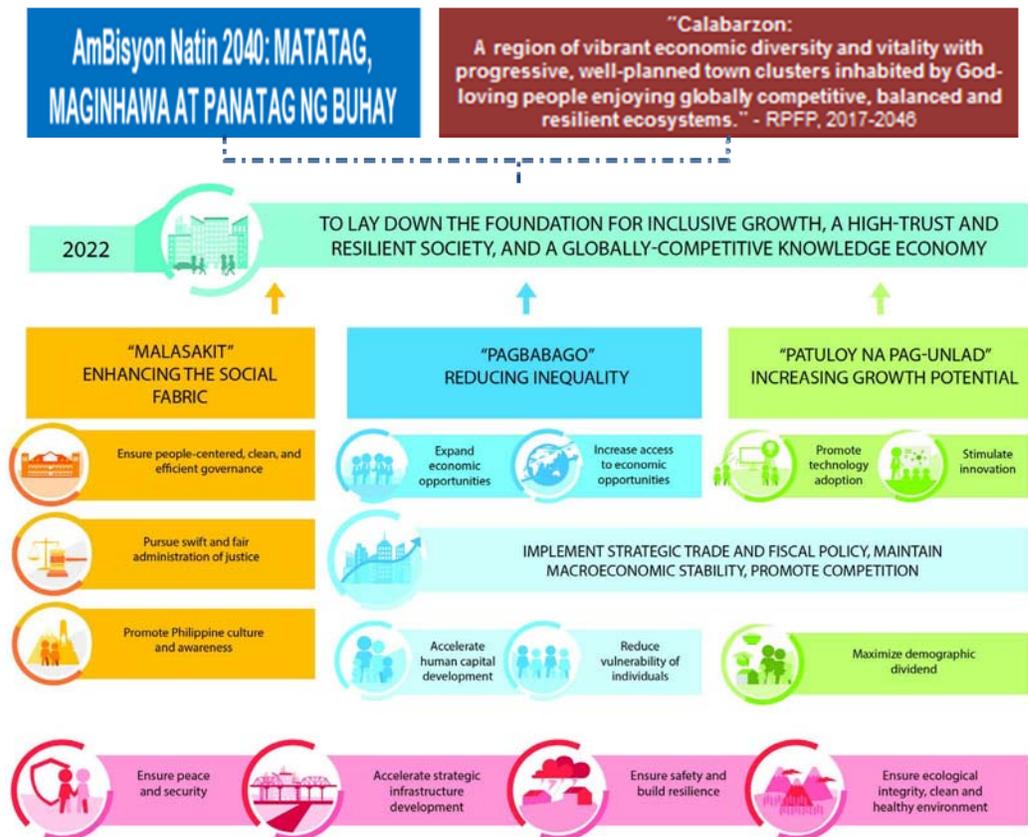
Regional
Development Plan
2017-2022 Overall
Framework

Regional Development Plan 2017-2022 Overall Framework

As a component of the PDP, the Calabarzon RDP adopts the same development framework of the PDP for the next six years. The RDP 2017-2022 is the first medium-term plan to implement the *AmBisyon Natin 2040* and the Regional Physical Framework Plan (RPF) 2017-

2022. For this medium-term, the goal is to lay down a solid foundation for more inclusive growth, a high-trust society and a globally competitive knowledge economy. This goal shall be achieved through its strategy of “*Malasakit at Pagbabago tungo sa Patuloy na Pag-unlad*”.

Figure 4.1 The Development Framework



Enhancing the social fabric

The aim is to regain peoples' trust through "*Malasakit*" — making public institutions citizen-centered, efficient and clean. Administration of justice will be swift and fair. Filipinos will also be made aware of the country's cultural diversity and its value. The various information and education campaigns and governance-related competitions sponsored by the RDC and its members will contribute in regaining the public confidence with the government.

Reducing inequality

For each economic sector, it is about expanding economic opportunities and increasing access to these opportunities, particularly of sub-sectors and economic groups that used to lag behind, so that ordinary Filipinos can feel the "*Pagbabago*". For individuals and people groups, this is about reducing vulnerability and improving human capital. The region has identified geographic focus on poverty alleviation as well as addressing some basic needs. The RDC has enjoined its members to adopt the convergence approach to ensure immediate results.

Increasing potential growth

It is imperative that growth is accelerated and sustained ("*Patuloy na Pag-unlad*"). This can be done by graduating to a knowledge economy. Technology adoption will be promoted and innovation encouraged.

Potential growth can be further accelerated by maximizing the gains from demographic dividend. There will be aggressive efforts to ensure that families will have the size that can be adequately cared for. This will be complemented by measures to delay childbearing and lengthen the space between births.

Enabling and supportive economic environment

Growth will be supported by maintaining macroeconomic stability, putting in place a strategic trade and fiscal policy, and enhancing access to financial services. The tax system will be made more efficient, equitable and globally competitive. At the same time, a national competition policy will be formulated and implemented to ensure a level playing field.

Foundations for sustainable development

In accordance with the overall spatial strategy, the RDP shall ensure that the physical environment will be characterized by a balanced and strategic development of infrastructure while ensuring that there is ecological integrity and a clean and healthy environment; and building resiliency against disasters- natural and human induced, and shocks etc. All these will be underpinned by ensuring national security against internal and external threats, and restoring public order and safety. There will be earnest efforts to secure lasting peace through the resumption of peace talks and pursuing economic justice.

PART II

ENHANCING THE SOCIAL FABRIC ("MALASAKIT")



05

Ensuring
People-Centered,
Clean, and Efficient
Governance

Ensuring People-centered, Clean, and Efficient Governance

Trust in the government and its instrumentalities are necessary in order to sustain economic development. Lack of trust in the government by the public and investors equate to irresponsiveness to policies and programs. This chapter focuses on the role of good governance in development. The good governance characterized by a citizen-centered, clean, and efficient delivery of goods and services defines the pace of economic development.

Assessment and Challenges

In order for socioeconomic development to continuously flourish, it must be complemented with a citizen-centered, clean, and efficient delivery of public goods and services. This is the case for the Calabarzon Region.

Increasing transparency and citizens' participation

Government reports have been made more publicly available with the implementation of the RA 9485 or the Anti-Red Tape Act of 2007 and RA (Republic Act) 10155 (General Appropriations Act of 2013), Sec. 93 Transparency Seal. All LGUs (Local Government Units) have complied with the full disclosure policy (FDP) portal posting as this is one of the requirements for the availment of loans and conferment of the Seal of Good Local Governance (SGLG). The FDP encouraged transparency and accountability of

financial and procurement transactions of LGUs. Most of the regional line agencies (RLAs) have posted their full disclosure reports in their respective websites. Some have partial compliance due to intermittent internet connectivity.

The Department of the Interior and Local Government (DILG) mandated all LGUs to submit their respective Executive and Legislative Agenda (ELA) and Annual Investment Plans (AIPs). The ELA contains the priority programs, projects and activities to be implemented within their three-year term of office based on the Comprehensive Development Plan, while the AIP is a tool to rationalize the utilization of resources. All LGUs have complied with the submission of their ELA and AIPs.

The DILG and the Department of Trade and Industry (DTI) have validated all LGUs who were compliant with the

standard number of signatories for both new and renewal applicants and consistent with the requirements of the Anti-Red Tape Act (ARTA) in the Business Permit and Licensing System (BPLS). However, a number of LGUs who have streamlined their BPLS were not compliant with the standard steps in the new and renewal applications. Non-compliance was due to inaccessibility of internet connection, lack of personnel, no permanent business permit and licensing office, and increase in the volume of registrants.

The CSC (Civil Service Service) regularly monitors government institutions' compliance with Anti-Red Tape Act using the ARTA report card to ensure better public service delivery. Greater opportunities for citizens to participate in governance were, likewise, opened.

The LGUs are required by law to engage civil society organizations (CSOs) in crafting programs and projects that will ensure inclusivity of the marginalized sector. The CSOs participated in the Local Poverty Reduction Action Team to prepare their Local Poverty Reduction Action Plan. The CSOs were also involved in the Bottom-Up Budgeting Process.

Improving performance management and accountability

The CSC launched the Strategic Performance Management System (SPMS) to encourage government employees to perform in agreement with the objectives and priorities of their organizations. As of 2015, 196 out of 273 RLAs were compliant

with the SPMS as a result of the effective advocacies and monitoring activities of the CSC.

On the other hand, DILG has introduced the SGLG to improve LGU performance. An increase in the number of LGUs that conferred with the SGLG was observed.

In addition, selected cities had to undergo the Citizen Satisfaction Index Survey (CSIS). The CSIS is an assessment tool which measures public service delivery of local governments according to the awareness, experience and perception of the citizens. The CSIS aims to measure the quality, responsiveness and inclusiveness of services from the perspective of the people as clients and as citizens. The Local Resource Institutes were assigned to undertake the core fieldwork procedures of the CSIS. For Calabarzon, the selected cities that were subjected to CSIS were: Cavite, Trece Martires, Imus, Tagaytay, Dasmariñas, and Bacoor in Cavite; Binangalan, San Pablo and San Pedro in Laguna; and Tayabas in Quezon.

To promote gender equality, the Regional Development Council, through its Gender and Development Committee, initiated the Calabarzon Outstanding GAD Implementer Award. It aims to recognize outstanding performance of different institutions in upholding the rights of women and mainstreaming gender. To date, there were eight LGUs, five SUCs, and three individuals that were conferred as Outstanding GAD Implementer.

The Gawad Kalasag is the country's premier annual awards for outstanding contribution in the fields of disaster risk

reduction and management, and humanitarian assistance. It is the principal mechanism through which the National Disaster Risk Reduction and Management (DRRM) Council advances awareness of the best practices on DRRM and humanitarian response and action. From 2010, there were four Gawad Kalasag national awardees from Calabarzon (1 LGU, 2 agencies and 1 individual). This proves the commitment of the region in DRRM excellence.

Cities and Municipalities Competitiveness Index

The National Competitiveness Council (NCC) has initiated the CMCI to rank the competitiveness of cities, municipalities and provinces based on their economic dynamism, government efficiency, and infrastructure facilities. The NCC annually awards the most competitive local government units who participated in the CMCI survey. From 25 participating LGUs in 2013, Calabarzon has achieved 100 percent participation in 2016. Calabarzon LGUs have been included in top rankings since the start of the CMCI survey. During the 2016 awarding ceremonies, Calabarzon bagged the most awarded Region in the CMCI. The province of Rizal and Cavite were awarded as the most competitive provinces in the country, while Cainta, Rizal and Infanta, Quezon ranked as 1st most competitive municipalities under the 1st and 2nd class municipalities category, and 3rd-6th class municipalities category, respectively. Taytay, Cavite and General Trias, Cavite were the 2nd and 3rd most competitive municipalities under the 1st and 2nd class municipalities category.

Continuous improvements are needed to provide better delivery of public goods and services. There is a need to assess and further strengthen the monitoring of the ARTA report card to ensure full compliance of all the government institutions, including state universities and colleges.

There is a need to address the demand for data on information and communications technology, business process management, migration, trade and services, and gaps on exports to provide a more concrete and evidence-based planning and decision-making.

The Run After Tax Evaders program of the Bureau of Internal Revenue (BIR) needs the participation of both public and private entities. Inaccurate declaration of income and non-issuance of receipts by business establishments need to be addressed.

Likewise, poor internet connection in far-flung areas made it difficult to register in the Mobile Revenue Collection Officers System.

The free-flow of goods and services between ASEAN countries will create more competition between local and international goods and services. Agricultural products as well as talents in the region have to compete with their foreign counterparts.

In terms of an enabling economic environment, Calabarzon's competitive local government units need to maintain their competitiveness ranking. Local governments that are lagging in terms of competitiveness also need to catch-up with

the more competitive ones. The CMCI has not been fully recognized by local governments as a tool to improve the delivery of public service and increase the number of investments. Another big challenge the region faces is limited

infrastructure for international access or gateway. With Batangas port as the only commercial port, the region has yet to build an airport to allow international and domestic arrivals.

Strategic Framework

This medium term development plan aspires to enhance the social fabric by building a high-trust society. Specifically, it aims to engage and empower citizens fully,

achieve seamless service delivery, enhance administrative governance, and strengthen the civil service.

Figure 5.1 Strategic Framework for People-Centered, Clean and Efficient Governance



Targets

Table 5.1 Plan Targets for Ensuring People-Centered, Clean and Efficient Delivery of Public Goods and Services

INDICATORS	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
NGAs and GOCCs fully complying with the Citizens Charter achieved	161	100%	CSC
Proportion of LGUs improved in Competitiveness Ranking increased	-	-	DTI LGUs RCC
LGUs with validated streamlined Business Permit Licensing System (BPLS)	80%	100%	DILG, LGUs & DILG
Compliance of LGUs and RLAs with PhilGEPS increased	-	to be determined	LGUs, DBM

INDICATORS	BASELINE	END OF PLAN TARGET	RESPONSIBLE AGENCY
	2015	2022	
LGUs compliant to ARTA sustained/ increased	100%	100%	CSC
RLAs conferred with the CSC Seal of Excellence increased	3	to be determined	CSC
LGU recipients of the Seal of Good Local Governance	26	to be determined	DILG
LGUs complying with the Full Disclosure Policy (FDP) Portal Posting	-	to be determined	LGUs, DILG
a. Fully complying	80%	100%	
b. Complying	100%	100%	
Cities with Citizen Satisfaction Survey increased	10	to be determined	DILG
Offices with ISO 9001 Certified QMS increased	-	to be determined	GQMC DAPS
a. RLAs			
b. GOCCs			
High-density service offices/line agencies passing the ARTA RCS increased	99.04%	to be determined	CSC
LGUs assessed that are compliant with set PFM standards (%)	-	to be determined	DBM

Strategies

To achieve fully engaged and empowered citizenry, the following strategies will be pursued:

- Institutionalize feedback and response mechanisms.* The establishment of feedback mechanism, such as hotline 8888, should be sustained and strengthened. Benchmark with the e-lounge system of BIR and Court of Tax Appeals can be explored as a model to institutionalize feedback and response mechanisms in the LGUs. The CSIS should be expanded to include all LGUs in order to measure the satisfaction of its citizens in their service delivery performance.
- Sustain transparency initiatives.* President Rodrigo Duterte signed Executive Order (EO) no. 2 series of 2016 “Operationalizing in the Executive Branch the people’s constitutional right to information and the state policies to full public disclosure and transparency in the public service.” The EO ensures the public of transparency in government transactions and spending.
- Improve access to the internet.* Improve ICT infrastructures for internet accessibility. Provide free WiFi access in all public places especially to communities with minimal or no access to information. Access to the internet will engage the citizens to view, follow, and be informed on the different documents uploaded by government instrumentalities such as budgeting, spending, development of projects, to name a few.
- Strengthen involvement of civil society organizations.* Encourage the strengthening of partnership between the local government and civil society in public resource management, as well as in identifying beneficial projects for their community, such in the case of Assistance to Disadvantaged Municipalities (ADM). Involvement of the CSOs and people’s

organizations in the different councils such as the local development council and regional development council empowers the citizens by participating in the policy-formulation.

- *Involve citizens in the government's fight against corruption, illegal drugs, and criminality.* The DILG launched the MASA MASID or the Mamamayang Ayaw Sa Anomalya, Mamamayang Ayaw Sa Ilegal na Droga that encourages communities to participate actively in the government's fight against corruption, illegal drugs, and criminality. This is a collaborative effort between law enforcement agencies, CSO, LGUs, village officials, faith-based groups, and residents including the youth in the barangay.

To achieve a seamless service delivery, the following strategies will be pursued:

- *Automation.* Government processes such as business permits and licences should be automated to provide faster and more seamless business registration in the LGUs by shortening processing time and lessening application steps and human interaction. This will create a good business climate which will attract more businesses and investors.
- *Unified database system.* A unified database system which consolidates different data sets from the different agencies should be established to provide a single reference of the needed data for specific interventions. A shared database will encourage

exchange and collaboration among its users.

- *Sustain convergence interventions of RLAs to LGUs.* The regional line agencies should sustain convergence for the LGUs to achieve a complementation of initiatives and to avoid duplication of efforts.
- *Strengthen linkages and partnerships among agencies.* Strengthening linkages and collaboration of the different agencies will improve policy-making, streamline efforts and initiatives, and improve efficiency in the implementation of programs, projects, and activities. The Regional Development Council, Regional Disaster Risk Reduction Management Council, Regional Peace and Order Council, to name a few, are among the avenues that encourage vertical and horizontal linkages among the agencies.
- *Set-up one-stop shop for government services.* Delivery of public goods and services should not be taxing. A co-location or one-stop shop for application of business permits will provide ease for the public. For Overseas Filipinos, a One Stop Migration Resource Centers offers comprehensive, holistic and gender-sensitive programs for migrants and their families left behind, as well as rendering services at every stage of migration cycle.

Enhancing administrative governance is vital in creating a government that is worthy of people's trust. This includes

enhancements on institutional systems, and government processes and procedures. These can be achieved through the following strategies:

- *Intensify monitoring compliance to the Anti-Red Tape Act.* Building the government's integrity by substantially reducing corruption and bribery in all forms among its ranks will build positive public perception of the bureaucracy.
- *Sustain Full Disclosure Policy Compliance.* The DILG requires all the cities and municipalities to comply fully with the Full Disclosure Policy. Non-complying LGUs should be assisted. Providing ICT infrastructures for internet accessibility will facilitate LGUs to upload information in their respective websites for transparency compliance. Posting of Citizen's Charter and Transparency Seal should be sustained. Internet accessibility will also facilitate the operation of the Mobile Revenue Collection Officers System.
- *Strengthen SGLG.* Implementation of the Seal of Good Local Governance should be continued and strengthened to encourage LGUs to perform in all aspects of governance, such as good financial housekeeping, disaster preparedness, social protection for the basic sector, business-friendliness and competitiveness, environmental management, and law and order and public safety.
- *Revisit RA 9184.* Most government agencies and local government units

require a desired level of quality in goods or services to meet their needs and enhance public service delivery. In line with this, the Congress should revisit RA 9184 or Government Procurement Reform Act, particularly on the provision stating that contracts shall be awarded only to bidder with the lowest calculated responsive bid for the procurement of goods and infrastructure projects.

- *Promotion and sharing of best practices among local governments.* Sharing of best practices among LGUs will provide ideas and practical solutions for other LGUs to implement in their respective localities.

To strengthen the civil service, the following are the strategies:

- *Sustain Strategic Performance Management System.* It encourages civil servants' excellence in performance and accountability. Continuous implementation of the performance-based incentives for civil servants will also encourage better public service delivery. Providing recognition to exemplary government employees with monetary and/or non-monetary awards will boost their morale and may serve as an inspiration to fellow employees to excel.
- *Improve human resource (HR) management process.* Several strategies are deemed necessary to improve the human resource management process, which includes: a) ensuring responsive, inclusive, participatory and representative decision-making at

all levels; b) improving career development and succession planning; c) conducting capacity building; d) enhancing performance management systems; and e) using HR analytics.

- *Merits and awards.* Sustain the merits and awards scheme of civil servants for

their outstanding contributions and excellence in the delivery of public service, such as the Honor Awards Program of the CSC. This strategy will translate to government employees with high morale, efficient, responsive and courteous.

Major Programs and Projects

- ARTA Report Card Survey
- Seal of Good Local Governance
- Full Disclosure Policy
- Honor Awards Program in the Civil Service
- Public Financial Management
- Strategic Performance Management System
- Calabarzon Project Monitoring System
- Assistance to Disadvantaged Municipalities
- Cities and Municipalities Competitiveness Index Survey
- Business Process Licensing System
- Free Access to WiFi
- Mamayang Ayaw sa Anomalya, Mamamayang Ayaw Sa Illegal na Droga

06

Pursuing Swift and
Fair Administration
of Justice

Pursuing Swift and Fair Administration of Justice

This chapter discusses the role of economic justice in inclusive growth and the several initiatives identified to improve administration of justice. The administration of justice must be swift and fair.

Assessment and Challenges

There had been a decreasing trend in the number of the rehabilitation interventions in the past three years from 2013 to 2015. A total of 29,696 rehabilitation interventions were conducted in 2013, 26,216 in 2014, and 19,096 in 2015. The number of compliant clients under supervision, likewise, decreased from 3,712 in 2013, 3,572 in 2014, and 2,387 in 2015.

Table 6.1 Number of Rehabilitation Interventions, Calabarzon, 2013-2015

YEAR	NO. OF INTERVENTIONS
2013	29,696
2014	26,216
2015	19,096
% Change (2013-2015)	-35.7

Source: DOJ-PPA Region IV-A

The decrease in the number of the rehabilitation interventions was attributed to the implementation of Republic Act 9165 or the “Comprehensive Dangerous Drugs Act of 2002,” which made drug offenses no longer probationable. The rehabilitation programs were strengthened through partnership with local government units. This helped the Department of Justice-Parole and Probation Administration (DOJ-PPA) sustain the implementation of the harmonized program that aims to rehabilitate the clients holistically to make them productive individuals of the society.

From 2014 to 2016 jail population had risen at an average of 36.81 percent increase from 2014 to October 2016, an average higher than the projected four-to five-percent increase annually. As of October 2016, there were 12,015 inmates in 2014, 14,800 in 2015, and 19,015 in 2016. Of the 19,015 inmates, 11,261 (59.22%) were drug-related.

The administration of justice has always been viewed as slow and selective. The justice system is limited by fragmentation, delays and congestion, low public trust and investor confidence, and limited resources.

Delays have resulted in congestion inside the jails. Calabarzon has the most congested jails nationwide with 0.1 square meters per inmate living space. This posted the need to fast-track the jail decongestion program.

Apart from building more jail, there is a need for more rehabilitation centers as well as programs for drug surrenderers.

Strategic Framework

The Regional Development Plan 2017-2022 aims to administer justice swiftly and fairly in order for the people to trust the government. Overhaul of the existing judicial system is needed to

achieve the goals. Particularly, it aims to enhance civil, criminal, commercial and administrative justice systems; and improve sector efficiency and accountability.

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



Targets

Table 6.2 Plan Targets to Pursue a Swift and Fair Administration of Justice

INDICATORS/UNITS	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Backlogs of investigations/ cases beyond the maximum prescribed periods reduced	-	to be determined	
a. NBI investigation	-	Reducing	NBI
b. DOJ Prosecutor Investigation	-	Reducing	DOJ Proper
Number of pending cases in all courts halved	-	Reduced by 50%	DOJ
Number of taxpayers' complaints addressed over total number of complaints	-	Increasing	-

Strategies

The following are the strategies to enhance the civil, criminal, commercial and administrative justice systems:

- *Institutionalize the Regional Justice Sector Coordinating Council (RJSCC).* The institutionalization of the RJSCC will facilitate the coordination of the justice system for a sensible approach in administrating justice through planning and operations. A one-stop shop to improve access for judicial processes should be established.
- *Strengthen economic justice.* Establishment of special courts for specific sectors to address specific cases such as commercial, cybercrime, and competition cases, among others. This will regain the investors' confidence, especially in the economic justice system.
- *Streamline investigation and prosecutorial processes.* Law enforcement agencies such as PNP should seek technical assistance from the prosecutors regarding standards in investigation and case build-up to ensure successful conviction.

The following are the strategies to improve sector efficiency and accountability:

- *Deliver fair and equal justice.* An equal and fair justice means having an accessible legal aid particularly among the poor and the marginalized. This entails an

increasing number of public attorneys and prosecutors.

- *Operationalize local intervention for the rehabilitation of drug surrenderers.* Respective LGUs should have rehabilitation programs for drug surrenderers to prepare them for reintegration to the community. Technical assistance can be provided by the DOJ-PPA field offices to LGUs that have no program of intervention for drug surrenderers and provision of rehabilitation centers. The Bureau of Jail Management Penology (BJMP) has also initiated the Barangay-Based Therapeutic Community Approach Training, which is a community-based rehabilitation program and a structured multi-sectoral approach to cater to drug surrenderers.
- *Decongest jails and detention facilities.* To address extreme jail congestion, the BJMP Region IV-A will extend its facilities to provide added living space for inmates through an allocation of PHP320M for construction outlay. Other decongestion activities should be implemented and fast-tracked through hiring of Case Decongestion Officers, Assisting Courts System, and Continuous Trial System.
- *Strengthen victim legal protection and assistance.* Justice will be made accessible for the marginalized sector of the society. Public assistance desks will be established. The PNP will sustain their women's and children's desks.

- *Strengthen efforts against illegal drugs inside jail facilities.* BJMP Region IV-A Oplan RODY was created to sustain the momentum in strengthening various efforts in the BJMP's anti-illegal drugs strategy.
- *Enhance accountability through engaged citizenry.* Educating and engaging the citizens on the justice system and how crimes will be prevented should be broadened. This will propel citizens to be engaged, and eventually push for sectoral reforms. Likewise, a feedback mechanism on the justice sector should be institutionalized.
- *Enhance the Alternative Dispute Resolution.* To decongest regular courts, alternative dispute resolution such as the Lupong Tagapamayapa should be maximized. The Lupong Tagapamayapa will provide mediation processes of conflicts in the barangays.
- *Unified database system.* A unified database for the whole justice system should be pursued. A single case identification must be established. This will encourage efficiency of filing case documents.

Major Programs and Projects

- Youth Entrepreneurship Law
- Community assistance to returnees
- Livelihood assistance for returnees and former drug offenders/former rebels
- Adopt interventions on victim assistance e.g. for sexually abused victims
- Values formation for the youth
- Rehabilitation program to decongest jails
- Unified information database for the whole justice system.
- Justice on Wheels
- Information drive on the mandates and policies relative to justice system
- Strengthen Men Opposed VAW Everywhere (MOVE) and *Kalalakingang Tapat sa Responsibilidad at Obligasyon sa Pamilya* (KATROPA) in communities
- Conduct programs to empower marginalized system in the community such as Community-based Training for Enterprise Development Program of TESDA.
- Management of complaints of human rights violations through improved documentation and database
- Strengthening of small courts and alternative dispute bodies

07

Promoting
Philippine Culture
and Values

Promoting Philippine Culture and Values

Culture, in its holistic context, is the thread that binds the social fabric of a particular group, community, and nation. Conflicts caused by differences among individuals can be cured by a single notion of what they value. Acceptance amidst cultural diversity provides an engaging environment wherein members of a particular community can freely participate, collaborate, and contribute. This eases the means to translate and realize the unified set of goals a particular nation is geared towards.

Consonant to growth, culture is considered as one of the pillars to achieve inclusive growth since it caters wide range and cross-cutting sectors. A nation driven by culture-integrated programs and policies tend to be efficient due to the acceptable context by which these strategies were formulated. On the other hand, a nation damaged by policies that resound culture inequality paves way to disagreements in terms of economic, political, and social ideas. In general, culture fragmentation leads to the disorientation of the national development plans.

This chapter aims to discuss the need for a one Filipino identity as a catalyst towards inclusive, sustainable and human-centered development. Hence, the Regional Development Plan adopts the priority areas reflected in the Philippine Development Plan: a) safeguarding and enshrining our cultural heritage, b) achieving equity and inclusion in access to cultural resources and services; and c) sustaining and enhancing cultural assets to foster creativity and innovation for soio-economic growth.

Assessment and Challenges

United Nations Educational, Scientific and Cultural Organization (UNESCO) defined culture as “*set of distinctive spiritual, material, intellectual, and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs,*” contrast to the perceived concept of culture that is confined mainly to art. With this, the UNESCO classified cultural heritage as

tangible and intangible resources¹. Whereas tangible cultural heritage is contained in the physical artifacts, historical places, and monuments that are considered worthy of preservation, intangible cultural heritage is reflected from the practices, representations, expressions, knowledge, and skills that communities and groups recognized as part of their cultural heritage.

Calabarzon region is rich in tangible and intangible cultural resources. Out of the 335 intangible cultural resources recognized in the country, four came from the Calabarzon region. These include Loa in Batangas, San Clemente Festival and Angono Festivals in Rizal, and *Pagkakayas* in Laguna. Zarzuela and Moro y Cristianos Street Drama were also identified as cultural resources that have been practiced countrywide. Moreover, the region celebrates different festivities such as Pahiyas Festival in Quezon, Higitas Festival in Rizal, Anihan Festival in Batangas, Anilag Festival in Laguna, and Kalayaan Festival in Cavite.

At most 16,754 indigenous people (IP) who portray unique practices reside in Calabarzon. The IP communities are the Badjao, Aeta, Remontado, and Dumagat.

For the tangible resources, to date, there are 28 museums established in the region, i.e. Angono Petroglyphs Site Museum in Rizal, Museo ng Katipunan in Batangas, UPLB Museum of National History in Laguna, Aera Memorial Museum in Quezon, and Museo de la Salle in Cavite, among others. There are also 116 cultural properties in the region such as marked structures, national shrines, historical landmarks, national cultural treasures, and works of a national artist provided by the National Commission for Culture and Arts (NCCA), National Historical Commission of the Philippines and the National Museum of the Philippines. The list of cultural properties include the churches of different municipalities as marked structures and cultural treasures, ancestral houses as cultural properties, shrines and

plazas as historical landmarks, and the architectural structures of national artists. The cultural and historical landmarks in the region can be seen in Figure 7.2.

In recognition to the pronounced cultural heritage in the region and in the country, various laws were passed to assure that the preservation of cultural heritage was given importance. In 1966, the Republic Act 4846, otherwise known as Cultural Properties Preservation and Protection Act, was legislated. This aims to preserve, protect, and safeguard the intrinsic value of important cultural properties and the National Cultural Treasures of the nation. In 1974, Presidential Decree 374 was released to amend particular sections of the act. Moreover, in 1992, R.A. 7356 was enacted, creating the NCCA as the overall policy-making body, coordinating, and grants-giving agency for the preservation, development, and promotion of Philippine arts and culture. The NCCA then issued the Memorandum Circular No. 2002-81 or the Creation of the Local Culture and the Arts Council to ensure that the policies formulated for the promotion and preservation of Filipino cultural identity in the national level were cascaded in the localities.

Figure 7.1 Intangible Cultural Heritage in the Philippines recognized by NCCA

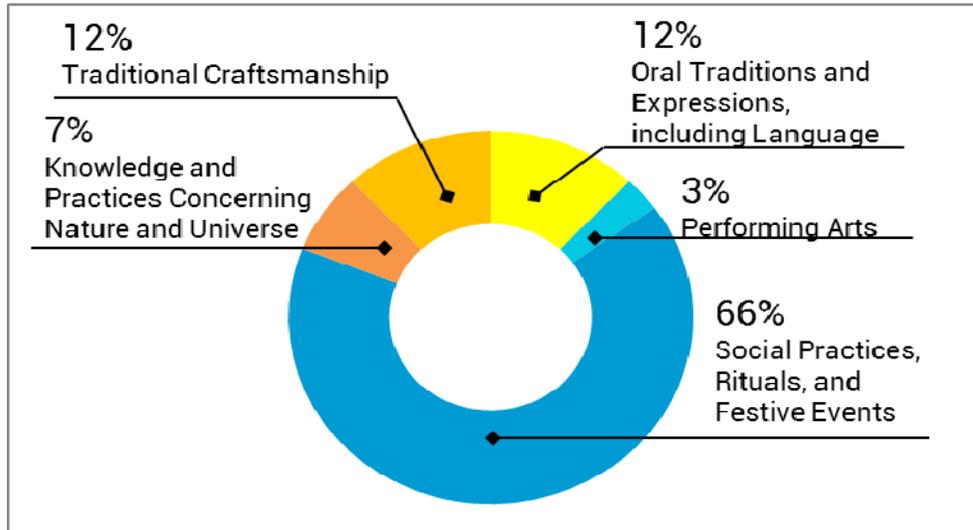
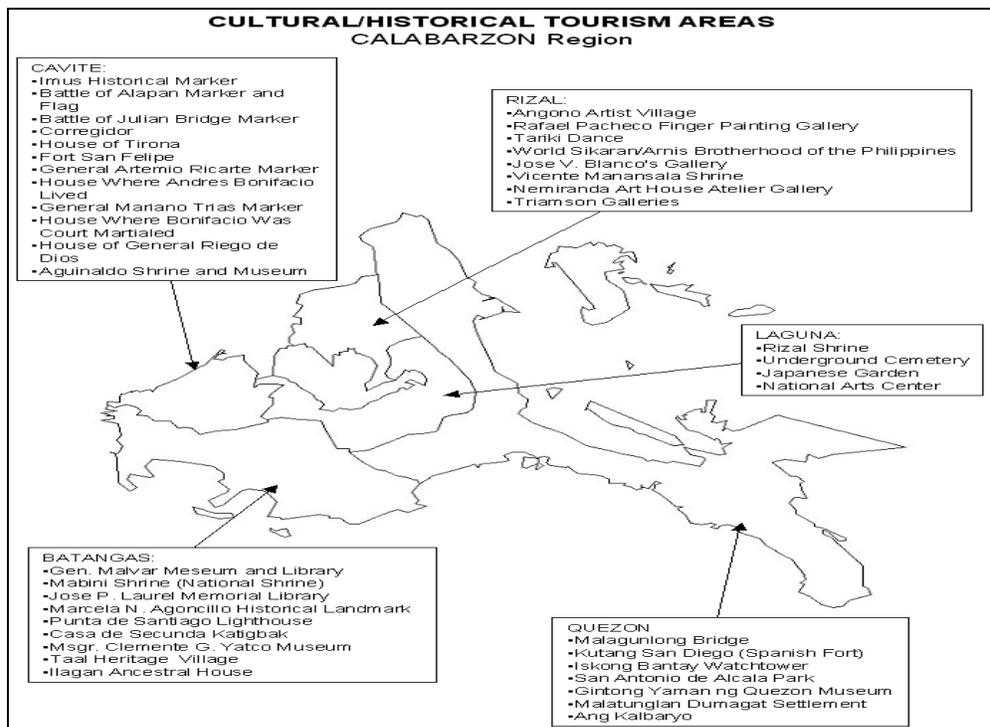


Figure 7.2 Cultural/Historical Tourism Areas in Calabarzon



Source: DOT IV-A

However, amidst its abundant resources and the enactment of policies to safeguard these resources, there are challenges faced

by the region in terms of promoting cultural diversity.

There is a limited awareness on cultural heritage and a low appreciation of national identity. One of the emerging issues of the lack of a single national identity resonates from the low awareness of Filipinos of their own heritage. The rise of technology and social media exposed Filipinos to the cultures of other nations. While this access provided advantages in communication, networking, and trade, this also caused confusion and under-appreciation of history and culture specifically by the second and third generation residing in the Philippines and abroad.

Limited awareness led to limited participation of the communities in advocating cultural diversity. The limited awareness and appreciation on cultural heritage administered to the understated contribution of culture in economic growth and social development. Because of this, little attention is given to the sector both at the national level and in the community. Hence, advocacies that promote and foster culture integration in programs and policies are not fully mainstreamed in different platforms.

There is a need to define the “malasakit” values that would foster common good qualities among Filipinos. Although elementary history and values education are integrated in the curriculum of basic education, there is still a gap in the appreciation of Filipino cultural heritage due to lapses in historical information reflected in educational materials and the lack of participatory activities that cater to Filipino traditions and practices.

While there are abundant cultural resources, these resources were not properly documented and are not easily accessible. Local government units do not have a definite mapping of their cultural properties. Moreover, data in other aspects of culture, such as employment and GDP contribution, were given little attention.

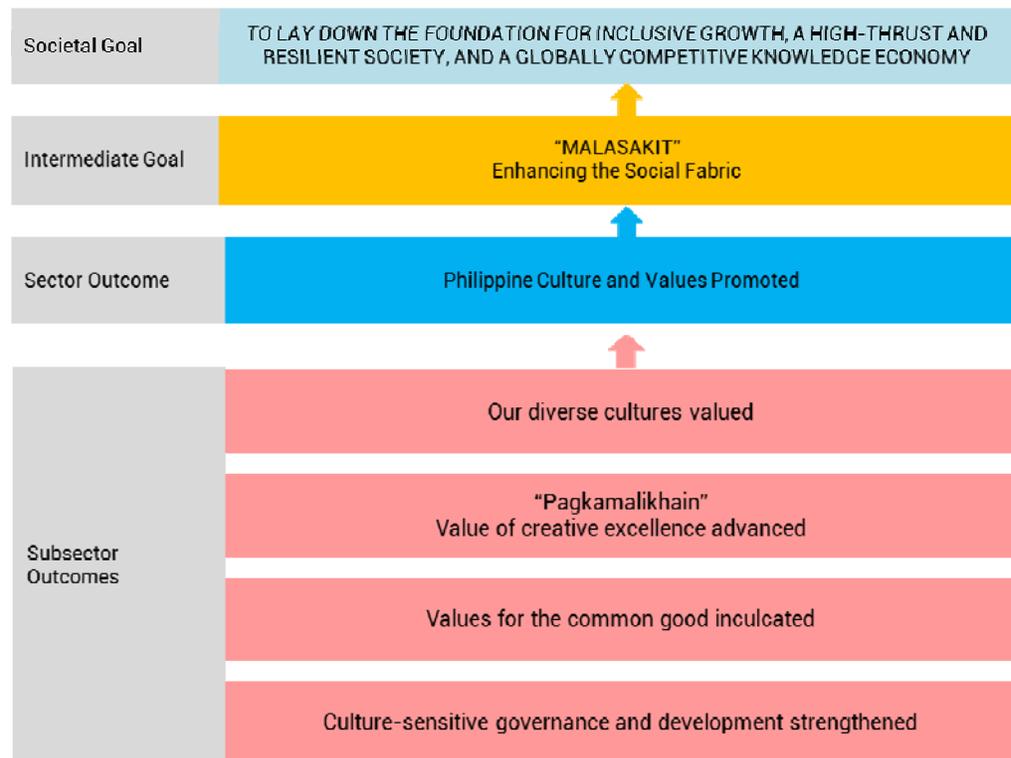
Bureaucratic processes hinder the realization of cultural activities in the localities. Despite the presence of the laws and enactments that could pave way to the strategic implementation of such policies, bureaucratic processes contribute to the unrealized laws at the local level due to the lack of coordinating mechanism that will ensure smooth transition of the programs and policies from the national level. Also, the lack of mechanism to monitor culture-related programs led to the inability to account the progress and extent that these activities contributed. Monitoring and evaluation of culture-related activities should have also confirmed if the targets set were met and the specific problems were addressed.

Strategic Framework

The RDP Chapter on Culture will follow the PDP framework (Figure 7.3) where the main goal is to build the foundations for an inclusive growth, a high-trust society, and a globally-competitive knowledge economy. The Culture Sector contributes to the overall goal by enhancing the social fabric and regaining people’s trust through *malasakit*.

The intermediate outcomes for the Chapter are defined based on the valuing of diverse cultures, advancing value of creative excellence, inculcation of values for the common good, and strengthening of culture-sensitive governance and development.

Figure 7.3 Strategic Framework to Promote Philippine Culture and Values



Targets

Table 7.1 Plan Targets to Promote Philippine Culture and Valuesⁱⁱ

INDICATORS	BASELINE YEAR	END OF PLAN TARGET 2022
Increased level of awareness of Filipino values, cultural diversity, creativity, and culture-sensitivity		To be determined
Inclusion of culture in all development plans in key growth areas		To be determined
Heightened pride of place and pride of being Filipino		To be determined

Strategies

Subsector Outcome: Our diverse cultures valued

Given that the Philippines is an archipelago, different cultures were developed among regions. There is a need to promote appreciation of the different cultures amongst the regions and ensure that these are integrated in their individuality without compromising the notion of a single national identity. To achieve this, culture should be safeguarded, promoted, protected, and recognized.

Develop, produce, disseminate, and liberalize access to information on Filipino culture. Intensified promotion and information dissemination through conduct of outreach programs, establishment of mobile library and travelling exhibit will be conducted. There should also be a provision for wider access on cultural resources through the digitization and content development of information materials. A wider range of stakeholders will be able to access Filipino culture through the creation of online archives.

Institutionalize and intensify heritage conservation plans and programs. There is

a need to develop a regional culture awareness program that will be cascaded at the local levels, as well as the framework for culture development and Heritage Conservation and Development Plans.

However, one of the perceived reasons of unrealized programs on culture is the inadequacy of funding support. Hence, a Cultural Conservation and Development Fund must be legislated to allocate a percentage of agency and LGU budget for culture-related activities and programs.

Moreover, because of the vulnerability of culture heritage sites and other facilities to disasters and risks, there should be a climate change adaptation and disaster risk reduction responsive plans. Also, a structural assessment of the facilities and sites should be conducted.

Establish Knowledge Development Centers and Institutes for Living Traditions for building capacities of Filipinos. The younger generation may not be completely aware of the different Filipino traditional practices. To ensure that the practices are carried over the generations, culture bearers should be identified and the Indigenous Knowledge Systems and Practices should be documented.

Uniform learning materials should also be developed.

One of the major recommendations in this plan is the establishment of Schools of Living Tradition. This will not only foster cultural conservation of a certain community, but can also be used for research and education purposes.

Expand inclusive cultural structures as civic spaces for dialogue and cultural exchange. Aiming for cultural awareness equates to the development of culture-related facilities and the construction of learning sites.

Subsector Outcome: **"Pagkamalikhain" Value of creative excellence advanced**

Creativity in development process should be continuously advocated. This will not only aid in the improvement and popularization of Filipino culture but will also add economic value.

Boost the development of Filipino creativity as tool for social cohesion and impetus for culture-based industry and creative economy. Elevating arts and culture in national and local conversations, i.e. use of media, and identifying culture champions at the local level will encourage artists among regions. Provision of incentives to artists and media practitioners who support culture-related activities and produce culture-related shows will also serve as mechanism in promoting cultural awareness. One of the underlying issues why there is minimal attention given to culture and the members of the sector is its understated contribution to economic

growth; hence, new models must be developed to heighten investment in culture. Investment in culture and the creative products will highlight the significant contribution of the sector in economic and social development.

Build public appreciation of Filipino creativity. There is a need to change mindsets on aesthetic and creativity for a better appreciation of Philippine culture. Moreover, providing broader career opportunities for culture and arts will encourage participation from the younger generation in pursuing passion for culture and arts.

Subsector Outcome: Values for the common good inculcated

There is a need to identify a set of values that characterize the Filipino identity. These values will be integrated in different programs, education curricula, and media to ensure the promotion and inculcation of these Filipino values. Instilling these values for the common good will lead to a high-trust society.

Determine set of core values that foster the common good. Consultations must be conducted among stakeholders and intuitions to determine the specific Filipino values that will be promoted for the common good. The consultations will tackle how social values are being discussed in institutions like home, community, school, and government.

Utilize various channels of values inculcation to reach all community members. Under the RDP, mainstreamed

culture and arts in development will be advocated through local ordinances as well as ensuring full participation of LGUs in the programs and projects.

Increase government efforts for promotion of value that foster the common good. To effectively ensure that values are promoted, the government should forge partnerships with media, specifically for image building. Consultations with the communities and engaging them in the programs and projects will also serve as collaboration in securing commitments and participation among stakeholders.

Mainstream cultural education in the basic, technical, vocational, and higher education system. Weak integration of culture education in the curriculum contributes to the youth's low appreciation of Philippine culture. Hence, there is a need for curriculum development, training of teaching personnel, and improvement of learning materials.

Subsector Outcome: Culture-sensitive governance and development strengthened

The government plays a crucial role in mainstreaming the Filipino culture and ensuring that it is protected and preserved.

Pursue institutional reforms for cultural development. Creation of local councils and ordinances that promote culture will be prioritized in the Regional Development Plan. These mechanisms will ensure that culture-related concerns will be discussed and addressed appropriately (Table 7.2 on Legislative Agenda).

Develop cultural assets across the country. Communities with mapped cultural heritage, properties, and sites can offer wider range of tourism and even economic activities. The LGUs will be encouraged to profile and conduct cultural mapping to facilitate database of the cultural resources. These statistics and data will serve as baseline in developing plans to further nurture culture and arts in the region and in the country.

Establish historic and cultural complexes nationwide as hubs for cultural education, entertainment and tourism. Showcasing Philippine culture for entertainment and culture will contribute economically.

Strengthen the protection of the rights of vulnerable sectors of society to access cultural resources and to live a life free from discrimination and fear. There should be a value inculcated among Filipinos that dictate respect and protection for the culture and the members of the sector. A creation of Indigenous People Day will foster appreciation of the culture and traditions of the katutubo and will eliminate discrimination.

Major Programs and Projects

The following activities will be pursued in order to attain the sector and subsector outcomes:

Subsector Outcome: Our diverse cultures valued

- Construction and enhancement of libraries and museums
- Development of knowledge materials on culture, arts and indigenous people
- Establishment of Schools of Living Traditions
- Conduct of advocacy campaign
- Enhancement of cultural awareness programs

Subsector Outcome: “Pagkamalikhain” Value of creative excellence advanced

- Creation of mechanism to increase investment in culture
- Provision of tax incentives and breaks for artists and media advocating cultural awareness
- Recognition of individuals and organizations who are champion in promoting, preserving and protecting cultural heritage and arts

Subsector Outcome: Values for the common good inculcated

- Conduct of consultations in identifying the values for common good
- Integration of culture and arts in the curricula and various activities of the basic and higher education
- Forge partnerships with media and other stakeholders to widen cultural promotion

Sub-Sector Outcome: Culture-sensitive governance and development strengthened

- Conduct of cultural mapping in the municipalities
- Provide trainings and capability building in preparing the Cultural Heritage Development Plan and on the integration of culture and arts in the local plans
- Organization of IP Leaders and ensure their representation in different local councils

Legislative Agenda

Table 7.2 Legislative Agenda to Promote Philippine Culture and Values

LEGISLATIVE AGENDA	RATIONALE
Support the Creation of Department of Culture	Reorganization of NCCA and its functions
Establishment of regional and local culture committees and councils	Issues concerning heritage, culture and arts are not addressed accordingly due to lack of proper venue at the local level to discuss such concerns. Creation of regional and local culture committees will serve as a venue for
Creation of office and plantilla items for culture	To have a better focus on cultural awareness, there should be a position dedicated to the perceived responsibilities
Localization of the Culture Heritage Law Executive Order allocating 10% of budget to culture and arts (Cultural Conservation and Development Fund)	Lack of funding support leads to inadequate programs and projects for culture and values promotion

LEGISLATIVE AGENDA	RATIONALE
Strengthen incentive system for media and artists: 1) Provision of tax incentives for media that promotes cultural oriented shows/content; 2) Provision of tax breaks for artists	Media is considered as very influential due to many means it can rely and transfer information and message. Providing incentives to media will encourage them to create shows and integrate culture-related contents to their releases. This will also aid in promoting culture awareness.
Issuance of AO on rectification of historical data	Some learning materials provided to schools include errors in historical data, hence, a need to revise and enhance these materials
Resolution encouraging LGUs to conduct cultural mapping	Cultural mapping is one of the mechanisms for a locality to gather information on culture and arts. This can also be used to identify culture-related activities and artifacts that the locality can promote for tourism purposes.
CHED Memorandum Circular on the Implementing Guidelines in the Conduct of Educational Tours/Trips	There is a need to integrate a relatively culture-related activities and site visits in the educational tours than to merely visit places such as amusement parks, malls, etc. Tours can be an actual visit to a community with strong culture notion or to the established living traditions.
CHED and DepED MC on the Integration of IP Education and history to formal education curricula	
Creation of IP day	Creation of IP day or "Araw ng Katutubong Kasuotán" will eliminate discrimination among IPs and will cater appreciation to the creativity of the indigenous people
Repeal MTRCB Law	Filtering of media releases and productions that are not in line with the social values that will be promoted

ⁱIn the Philippines, UNESCO inscribed the Hudhud Chants of the Ifugao and the Darangen Epic of the Maranao People of Lake Lanao in the Representative List of the Intangible Cultural Heritage of Humanity in 2008. In addition, the Philippines together with the Southeast Asian nations such as Vietnam, Cambodia, and Republic of Korea pursued the inscription of the tugging games and rituals in the Representative List in 2015. National Commission for Culture and Arts (NCCA), on the other hand, recognized intangible cultural heritage through the five domains defined by UNESCO: *Oral Traditions and Expressions, including Language as a Vehicle of the Intangible Cultural Heritage; Performing Arts; Social Practices, Rituals, and Festive Events; Knowledge and Practices Concerning Nature and the Universe; and Traditional Craftsmanship.*

ⁱⁱThere are no current baselines and targets for the indicators because data remain to be gathered and established through a national survey. These will be made available on the plan's midterm update in 2019.

PART III

INEQUALITY- REDUCING TRANSFORMATION ("PAGBABAGO")



08

Expanding Economic
Opportunities in
Agriculture, Forestry,
and Fisheries

Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries

This Chapter assesses the performance of the agriculture, forestry, and fisheries (AFF) sector and identifies key challenges that constrain its development. It also lays down the strategies to address the challenges and achieve expanded economic opportunities in the AFF sector.

Assessment and Challenges

Sector Performance

The AFF sector, which contributes 6.05 percent to the region's gross domestic product, remains an important growth driver as it provides employment to 14.32 percent of the region's workforce. The

sector was able to keep up with its increasing target from 2011 to 2015 posting an annual average growth rate of 1.60 percent. The sector's output increased from PHP67.74 B in 2011 to PHP72.13 B in 2015.

Table 8.1 Summary of Key Sector Indicators, 2012- 2015

SECTOR/ SUB-SECTOR OUTCOME	KEY INDICATORS	BASELINE 2012	TARGET 2013-2015
Competitive and sustainable agriculture and fisheries (A&F)sector achieved	A&F GVA increased (in PHP Million)	69,444.00	Increasing
	Value of production increased (in PHP Million)		
	a. Crops	16,430.02	Increasing
	b. Fisheries	18,092.66	Increasing
	c. Livestock	19,095.45	Increasing
Productivity in A&F sector increased	d. Poultry	23,026.98	Increasing
	Rice self-sufficiency ratio increased (in %)	17.00	18.00 22.00
Sector resilience to climate change risks increased	Average annual A&F production loss due to weather and climate-related disasters reduced (in PHP Million)	37.40	Decreasing

Source: Calabarzon Results Matrices, 2015

Table 8.2 Gross Regional Domestic Product (in PHP Million), 2011-2015

	YEAR					GROWTH RATE (IN %)				
	2011	2012	2013	2014	2015	'11-'12	'12-'13	'13-'14	'14-'15	AVE
Agriculture and Fishery GVA increased	67,743.39	69,444.00	71,173.02	70,298.68	72,132.43	2.51	2.49	-1.23	2.61	1.60
Gross Regional Domestic Product	1,025,925.00	1,097,790.00	1,170,574.62	1,230,517.36	1,303,724.02	7.00	6.63	5.12	5.95	6.18
Share to GRDP (in %)	6.60	6.33	6.08	5.71	5.53					6.05

Source: Philippine Statistics Authority

Employment

The sector provides work for 699,000 persons or 14.32 percent of the total persons employed in the region. However, those engaged in agriculture decreased by 2.96 percent annually.

Employment in agriculture had a decreasing trend as few high school

graduates are interested to enroll in AFF courses. In addition, agriculture graduates do not want to engage in farming locally, while others find employment in other fields or overseas. Also, state colleges and universities have limited facilities to train agriculture students especially on mechanized farming.

Table 8.3 Employment in AFF (in thousands persons), 2011-2015

	YEAR					GROWTH RATE (IN %)				
	2011	2012	2013	2014	2015	'11-'12	'12-'13	'13-'14	'14-'15	AVE
Employment in the Region	4,666	4,753	4,842	5,097	5,085	1.86	1.87	5.27	-0.24	2.19
Employment in AHFF	742	682	686	732	651	-8.09	0.59	6.71	-11.07	-2.96
Share to Employment (in %)	15.90	14.35	14.17	14.36	12.80					14.32

Source: Philippine Statistics Authority

Subsector's Contribution

The AFF sector was able to achieve the target of annually increasing its value of production. The sector's growth was driven primarily by the livestock and poultry subsector that constitutes about 55.20 percent of the AFF total output. From 2011 to 2015, livestock and poultry posted an average growth of 3.59 and 3.01

percent, respectively. The fisheries subsector, which constitutes 23.92 percent of the AFF, also posed a positive annual average growth of 1.39 percent. However, the performance of the crop subsector has been declining at an average of 1.34 percent annually. The crop subsector, which constitutes about 20.87 percent of the AFF sector, has been greatly affected by extreme climatic conditions.

Table 8.4 Value of Production (in PhP Million), 2011- 2015

COMMODITIES	2011	2012	2013	2014	2015
Crops	16,605.30	16,430.02	16,585.20	15,844.00	15,719.10
Fisheries	17,392.79	18,092.66	19,929.80	19,513.00	18,238.40
Livestock	18,824.23	19,095.45	19,865.00	20,323.70	21,662.60
Poultry	21,857.92	23,026.98	23,212.00	22,593.70	24,522.10
TOTAL	74,680.24	76,645.11	79,592.00	78,274.40	80,142.20

Source: Philippine Statistics Authority

Table 8.5 Share of Subsector to Total Value of Production (in percent), 2011- 2015

COMMODITIES	2011	2012	2013	2014	2015	AVE
Crops	22.24	21.44	20.84	20.24	19.61	20.87
Fisheries	23.29	23.61	25.04	24.93	22.76	23.92
Livestock	25.21	24.91	24.96	25.96	27.03	25.61
Poultry	29.27	30.04	29.16	28.86	30.60	29.59

Source: Philippine Statistics Authority

Inflation Rates

Prices of major commodity groups in the region somehow managed to remain within the 3 to 5 percent target from 2012 to 2015, except for vegetables and fruits which posted average inflation rates of 6.4 and 17.2 percent, respectively.

The increase in prices of vegetables and fruits may be attributed to decreased production due to adverse climate and weather conditions. However, lower oil prices that contributed to lower power and transportation costs resulted in stable commodity prices.

Table 8.6 Inflation Rates among Basic Food Commodities (in percent), 2012- 2015

COMMODITIES	2012	2013	2014	2015	AVE
Rice	0.6	4.1	11.7	1.8	4.6
Corn	6.2	4.5	6.1	0.4	4.3
Meat	1.4	2.1	4.4	1.7	2.4
Fish	6.6	3.1	5.2	4.1	4.8
Milk, cheese and eggs	3.2	2.1	3.5	2.7	2.9
Fruits	6.1	4.6	7.4	7.4	6.4
Vegetables	54.0	2.4	9.5	2.7	17.2

Source: Philippine Statistics Authority

Land Utilization

Agriculture and Fisheries utilized 764,381.16 hectares or 6.58 percent of the region's total land area. Coconut production used 58.02 percent, palay

production used 14.98 percent and corn production used 4.25 percent. However, the production areas in the region have been declining at an annual average of 0.15 percent.

Table 8.7 Top 10 Commodities Based on Area Planted, 2011- 2015

COMMODITIES	AREA PLANTED (IN HECTARES)					SHARE TO REGION (IN %)
	2011	2012	2013	2014	2015	
Coconut	438,253	438,733	440,640	451,100	448,905	58.02
Palay	114,186	113,010	115,518	116,568	113,066	14.98
Corn	31,858	33,080	33,906	34,518	29,185	4.25
Sugarcane	33,495	31,553	29,607	26,102	29,885	3.94
Banana	29,706	29,925	29,879	28,670	27,375	3.81
Banana Saba	17,362	17,602	17,582	17,393	16,575	2.26
Mango	14,777	14,557	14,185	14,185	13,972	1.88
Coffee	13,599	13,563	13,564	13,466	13,409	1.77
Coffee Robusta	10,855	10,848	10,853	10,830	10,851	1.42
Mango Carabao	10,507	10,507	10,299	10,299	10,201	1.36
TOTAL	764,079	762,347	764,940	771,117	759,423	

Source: Philippine Statistics Authority

Table 8.8 Top 10 Commodities Growth Rate Based on Area Planted, 2011- 2015

COMMODITIES	GROWTH RATE (IN %)					AVE
	'11-'12	'12-'13	'13-'14	'14-'15		
Coconut	0.11	0.43	2.37	-0.49	0.61	
Palay	-1.03	2.22	0.91	-3.00	-0.23	
Corn	3.84	2.50	1.80	-15.45	-1.83	
Sugarcane	-5.80	-6.17	-11.84	14.49	-2.33	
Banana	0.74	-0.15	-4.05	-4.52	-1.99	
Banana Saba	1.38	-0.11	-1.07	-4.70	-1.13	
Mango	-1.49	-2.56	0.00	-1.50	-1.39	
Coffee	-0.26	0.01	-0.72	-0.42	-0.35	
Coffee Robusta	-0.06	0.05	-0.21	0.19	-0.01	
Mango Carabao	0.00	-1.98	0.00	-0.95	-0.73	
TOTAL	-0.23	0.34	0.81	-1.52	-0.15	

Source: Philippine Statistics Authority

Rice self-sufficiency

For the period of 2012 to 2015, rice production in the region has met only 16.65 percent of the region's annual rice requirement. Rice production declined due to the damages brought by the Typhoon Glenda in 2014, El Niño phenomenon in 2015 and decreasing agricultural lands because of land conversion.

Declining Productivity

The productivity of major high value crop commodities declined over the period of 2011 to 2015 which resulted in the non-attainment of the targets. Cacao has declined by 11.90 percent, coffee by 11.53

percent and sugarcane by 2.16 percent. Likewise crop productivity declined with banana decreasing by 1.94 percent, white corn by 1.26 percent, coconut by 0.75 percent and palay by 0.12 percent. The occurrence of adverse climatic conditions greatly affected crop productivity in the region. Moreover, coconut production was affected by the "cocolisap" infestation in 2014 and the aging of coconut trees. However, the production of yellow corn increased by 12.02 percent, eggplant by 7.13 percent, mango by 1.72 percent and pineapple by 0.19 percent. The positive performance may be attributed to intermittent rains which somehow became favorable to the said commodities.

Table 8.9 Yield of Major Commodities (Metric Ton/Hectare), 2011- 2015

COMMODITIES	YIELD (METRIC TON/HECTARE)						GROWTH RATE (IN %)				
	2011	2012	2013	2014	2015	AVE	'11-'12	'12-'13	'13-'14	'14-'15	AVE
Palay*	3.5	3.44	3.56	3.48	3.48	3.49	-1.71	3.49	-2.25	0.00	-0.12
White corn*	1.71	1.53	1.79	1.68	1.59	1.66	-10.53	16.99	-6.15	-5.36	-1.26
Yellow corn*	1.95	2.13	2.84	2.69	2.98	2.52	9.23	33.33	-5.28	10.78	12.02
Banana**	3.82	3.89	3.95	3.64	3.52	3.76	1.83	1.54	-7.85	-3.30	-1.94
Coconut** (w/husk)	3.17	3.23	3.26	3.06	3.07	3.16	1.89	0.93	-6.13	0.33	-0.75
Pineapple*	22.27	22.51	22.98	22.65	22.43	22.57	1.08	2.09	-1.44	-0.97	0.19
Mango**	3.97	3.79	3.83	4.19	4.23	4.00	-4.53	1.06	9.40	0.95	1.72
Sugarcane*	63.66	60.81	60.26	60.46	58.29	60.70	-4.48	-0.90	0.33	-3.59	-2.16
Coffee** (dried berries)	0.41	0.63	0.39	0.35	0.17	0.39	53.66	-38.10	-10.26	-51.43	-11.53
Cacao**	0.07	0.06	0.06	0.06	0.04	0.06	-14.29	0.00	0.00	-33.33	-11.90
Eggplant*	19.39	20.05	20.40	21.05	25.30	21.24	3.40	1.75	3.19	20.19	7.13

Source: Philippine Statistics Authority

Livestock and poultry production increased from 2011 to 2015 and met the targets of increasing production. The positive performance can be attributed to the improved production support facilities

(e.g. slaughterhouses, auction markets and farm-to-market roads), increased financial assistance, and increased number of poultry integrators and livestock investors.

Table 8.10 Volume of Production of Livestock and Poultry (in Metric Ton), 2011- 2015

COMMODITIES	VOLUME OF PRODUCTION (METRIC TON)					GROWTH RATE (IN %)					
	2011	2012	2013	2014	2015	AVE	'11-'12	'12-'13	'13-'14	'14-'15	AVE
Hog	292,108	297,082	309,486	315,598	336,349	310,125	1.70	4.18	1.97	6.58	3.61
Carabao	6,443	6,406	6,469	7,017	7,491	6,765	-0.57	0.98	8.47	6.76	3.91
Cattle	24,630	24,194	24,789	26,147	28,051	25,562	-1.77	2.46	5.48	7.28	3.36
Goat	3,175	3,259	3,431	3,565	3,671	3,420	2.65	5.28	3.91	2.97	3.70
Chicken	285,024	298,358	302,569	298,542	321,670	301,233	4.68	1.41	-1.33	7.75	3.13
Chicken egg	120,876	129,777	128,707	120,642	133,962	126,793	7.36	-0.82	-6.27	11.04	2.83
Duck	792	736	720	665	602	703	-7.07	-2.17	-7.64	-9.47	-6.59
Duck egg	1,999	1,961	2,058	2,101	2,099	2,044	-1.90	4.95	2.09	-0.10	1.26

Source: Philippine Statistics Authority

Fisheries' production in general has been declining, with commercial fisheries and aquaculture production declining at an annual average of -2.46 and -3.70 percent, respectively. The decline is partly attributed to intensified enforcement of fishery laws and regulations, lesser fishing trips due to frequent gale warnings and rough seas and the hot weather condition which affects production.

On the other hand, municipal fisheries production increased by an average of 2.77 percent despite lesser fishing trips due to frequent gale warnings and encroachment of commercial fishing boat operators in the municipal waters.

Table 8.11 Volume of Production of Fisheries (in Metric Ton), 2011- 2015

COMMODITY	VOLUME OF PRODUCTION (METRIC TON)					GROWTH RATE (IN %)				
	2011	2012	2013	2014	2015	'11-'12	'12-'13	'13-'14	'14-'15	AVE
Commercial	73,103	69,033	66,162	68,381	66,017	-5.57	-4.16	3.35	-3.46	-2.46
Municipal	124,549	126,938	128,798	145,475	137,857	1.92	1.47	12.95	-5.24	2.77
Aquaculture	205,242	211,964	213,142	177,609	174,131	3.27	0.56	-16.67	-1.96	-3.70

Source: Philippine Statistics Authority

Future Scenarios

Climate Change

The impact of climate change was seen in the erratic growth of the AFF's output. Severe weather and the periodic occurrence of the El Niño and La Niña phenomena adversely affected the performance of the sector.

Based on the 2011 Climate Projections of the Philippines of the Philippine Atmospheric, Geophysical and

Astronomical Services Administration (PAGASA), the projected temperature increase in Region IV-A by 2020 ranges from 0.9°C to 1.2°C. The expected temperature in the region by 2020 will range between 25.1°C to 29.4°C. In addition, there will be an uneven change in the amount of season rainfall that will either be reduced by as much as 31.5 percent or increased by 13.1 percent.

More than the projected increase in temperature and in the amount of rainfall, the PAGASA also projected a maximum

increase of 190 percent in the number of days with rainfall of more than 200 millimeters by 2020 resulting in a possible increase in optimal growing period for rice. The projected scenarios should serve as a planning tool that will allow implementing agencies to design and implement corresponding interventions to reduce the impact of climatic conditions on agricultural production.

Comparative Advantage

While the region maintains its comparative advantage in terms of livestock and poultry production, it is worthwhile to explore the region's potential in vegetable production, particularly of highland vegetables. The Provinces of Laguna and Quezon are possible production areas for cabbage, carrots and cauliflower.

Alternative Sources of Income

Agriculture is exposed to risks, such as, pests and diseases, extreme weather conditions, erratic cost of production, and regulatory measures, among others. To reduce the vulnerability of farmers and fisherfolks, it is important to have alternative sources of income. Intercropping coconut production with cash crops and/or high value commercial crops such as coffee or cacao can result in additional income and reduced losses of coconut farmers.

Another area that may be considered, especially by those engaged in aquaculture production, is to explore ornamental fisheries production. Ornamental fishkeeping, with the likes of *Arowana*, used to be more of a hobby than

a profitable activity. However, while tilapia retails for PHP80 per kilo, ornamental fish can be sold for PHP20,000 per kilo (Yan, 2015). Production costs are somehow similar as they eat about the same amount of food. The tropical condition of the country is also ideal for ornamental fish production. The Bureau of Fisheries and Aquatic Resources (BFAR) is promoting ornamental- fish farms, providing free brood stock, feeds and training for interested farmers.

Market Accessibility

The multiple layers of marketing and distribution agents of agricultural products result in large losses both in quantity and quality, leading to lower income for producers and to higher price for consumers. On the average, there is about 15 percent loss on grains from harvesting to milling, while it reaches as much as 29 percent loss for high-value commercial crops depending on the distance from the farm to the market destination.

Organizing agricultural producers will reduce losses in bringing products to the consumers. Further, organizing producers will facilitate government efforts to strengthen capacity of farmers as entrepreneurs to reduce the multiple layers in the traditional distribution and marketing practices. Organization of producers means more emphasis on economies of scale that will introduce producers to more opportunities in value adding and market integration, through vertical and horizontal linkages in the value chain, which will help increase their profit.

Investments of both public and private sectors in post-harvest facilities, farm-to-market roads and trading posts will be vital in promoting market accessibility and achieving food security.

Technology Adoption

Adoption of modern technology will allow the agriculture sector to be competitive under trade liberalization and resource utilization regime. The ASEAN economic integration and lifting of quantitative restrictions on rice will result in influx of cheaper food commodities that will affect the less competitive producers, majority of whom are the small farmers and fisherfolks.

The declining labor force can be addressed through the adoption of highly mechanized farm production while the issue on land utilization can be addressed through the use of high-yielding crop varieties. Also, the use of modern technology will address the issue on aging coconut trees by replanting hybrid coconut seedlings. Technology such as drought-resistant and tissue-cultured rice varieties will contribute in ensuring food security despite the impacts of extreme weather conditions.

Technology will not only ensure sustainable food production but it will also respond to the issue on environmental degradation. The agriculture sector needs to embrace technology in order to maximize resources and its benefits. Water and heat from the sun are both available and free for consumption. Utilizing technology that will convert these

resources into more effective input in production will contribute to food production and environmental protection. Solar-powered irrigation, water harvesting, and Bio-gas are some of the technologies that can be utilized in agricultural production.

Agriculture Promotion

The agriculture sector is considered to be the driving force of overall economic growth considering that the increase in agricultural productivity results in an increase in the income of farmers and farmer workers, and enhanced purchasing power of consumers. Moreso, agricultural growth contributes to economic activity in input, processing, distribution, and storage industries (Andersen and Shimokawa, 2006). Hence, the sector should be promoted as a business enterprise.

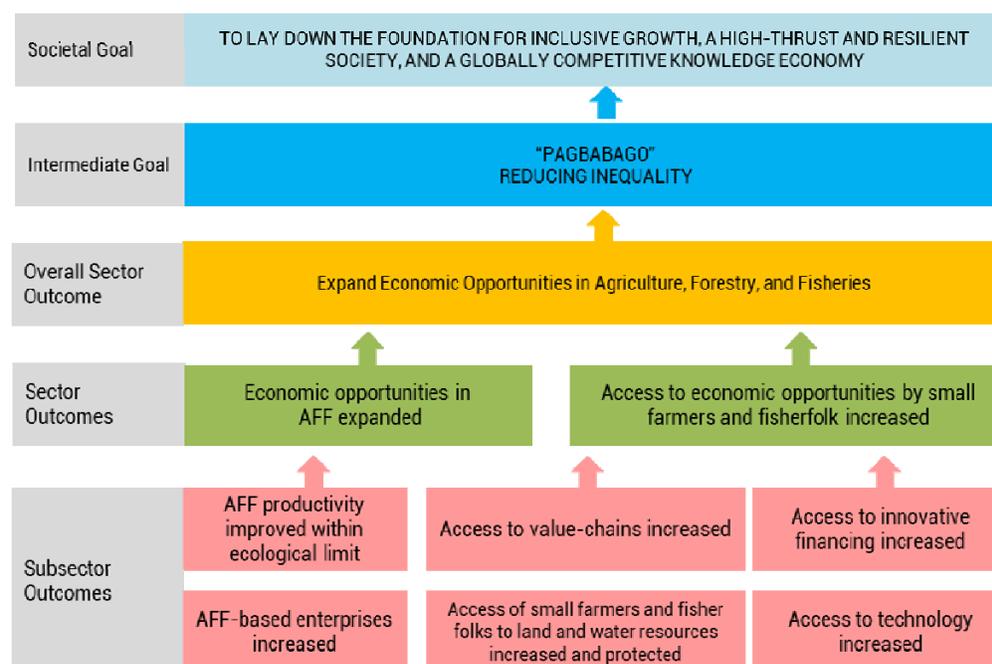
Promotion of agriculture as an economic enterprise should begin in the basic education of students. This will focus on the economic component of agriculture to influence the students' perception and inculcate the real value of agricultural farming. The existing school curriculum can include agricultural entrepreneurship, urban gardening and exposure trips to successful farms, among others.

Similarly, improved technical capability of agricultural extension workers will allow for extensive reach of knowledge on agricultural management, best practices and technology adoption to support agricultural production.

Strategic Framework

Reducing inequality in economic opportunities will contribute to inclusive growth, and in the long run, attain the long-term vision of “Matatag, Maginhawa at Panatag na Buhay” by 2040. This can be achieved by: a) expanding economic opportunities for those who are currently engaged in AFF; and b) increasing access to economic opportunities by small farmers and fisherfolk.

Figure 8.1 Strategic Framework for Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries



Targets

Table 8.12 Plan Targets to Expand Economic Opportunities in Agriculture, Forestry, and Fisheries, 2017-2022

INDICATOR	BASELINE 2015 (in Metric Tons)	ANNUAL PLAN TARGETS					END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Sector Outcome A: Economic opportunities in AFF expanded								
Growth rate of GVA in Agriculture and fishery increased	2.6%	2.0-3.5%	2.2-3.7%	2.3-3.8%	2.5-4.0%	2.6-4.2%	2.8-4.5%	DA,PSA
a. Crops	-0.8%	Increasing	Increasing	Increasing	Increasing	Increasing	2.0%-3.0%	DA,PSA
b. Fisheries	-6.5%	Increasing	Increasing	Increasing	Increasing	Increasing	3.0%-4.0%	DA,PSA
c. Livestock	6.6%	Increasing	Increasing	Increasing	Increasing	Increasing	3.0%-4.0%	DA,PSA
d. Poultry	8.5%	Increasing	Increasing	Increasing	Increasing	Increasing	2.0%-3.0%	DA,PSA

INDICATOR	BASELINE 2015 (in Metric Tons)	ANNUAL PLAN TARGETS					END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Sector Outcome B: Access to economic opportunities by small farmers and fisherfolk increased								
Growth in Labor Productivity of AFF Increased (PHP)	382,663	Increasing	Increasing	Increasing	Increasing	Increasing	5.0-6.0%	PSA, DA

Strategies

Sectoral Outcome A: Economic Opportunities in AFF Expanded

Economic opportunities can be expanded by: 1) improving the productivity of the AFF within ecological limit; and 2) increasing AFF-based enterprises.

Productivity enhancements will be attained within ecological limit by keeping a balance between utilization and regeneration of land and water resources to ensure sustained benefits. On the other hand, new AFF-based enterprises will be developed, while existing ones will be encouraged through increased value-adding of products with higher market value in order to increase production and to go beyond producing merely raw materials. The resulting rise in potential incomes will attract more people, including the youth, to venture into the sector.

Subsector Outcome 1: AFF productivity within ecological limit improved

Accelerate construction of climate-resilient, small-scale irrigation systems and retrofit existing ones. Irrigation systems must be climate-resilient and compliant with construction standards. Priority will be given to small and communal irrigation

systems, especially those using water harvesting technologies. Large-scale irrigation systems will be constructed if deemed hydrologically appropriate (i.e., water source is available and stable) and economically feasible. Damaged and non-functional irrigation systems shall be restored or rehabilitated to include retrofitting for climate resiliency.

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

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

For rice production to become more competitive, especially when the

quantitative restrictions on the commodity are lifted, the government will encourage the farmers to use farm machinery and equipment to lower the production costs.

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

Strengthen the AFF extension system. The existing extension system will be strengthened by engaging a pool of professional extension workers to provide technical and business advisory services to shorten the lag from research and development (R&D) to adoption. Priority extension activities will include encouraging farmers and fisherfolk to use (a) certified seeds and quality planting materials, especially high-yielding and stress-tolerant varieties (e.g., drought and flood); (b) quality semen of animals and eggs for poultry; and (c) quality fish fry and fingerlings. The government will recognize and advocate the adoption of good practices (e.g., Integrated Pest Management, Integrated Nutrient Management and sustainable fishing practices), and food safety and product standards (e.g., Good Agricultural Practices, Good Aquaculture Practices, Good Handling Practices, Code of Practices for Fresh Fruits and Vegetables,

Food Hygiene Practices, and Packaging and Transport Practices).

In addition, the government will continue to promote climate change adaptation practices, organic agriculture, urban agriculture, and halal food production. Timely and site-specific weather and climate advisories will be provided. Advanced information and communication technology (ICT) will be utilized in order to reach and serve a greater number of stakeholders.

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

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

- conduct regular nationwide fish stock inventory and assessment;
- implement appropriate fisheries management strategies such as scaling up of Community-Based Coastal Resources Management, territorial use rights in fisheries, and

closed season for selected species in some fishing areas;

- strengthen measures against illegal, unreported and unregulated fishing;
- regulate fishery structures such as fish pen and cages in inland bodies of water;
- implement boat/vessel and gear registration and licensing, and monitoring of compliance with catch documentation requirements for both municipal and commercial fishing boats; and
- conduct aggressive information, education, and communication (IEC) activities to increase the awareness of and appreciation for resource conservation measures, and also intensify compliance with fishery laws.

Subsector Outcome 2: AFF-based enterprises increased

Diversify into commodities with high value-adding and market potential. For Calabarzon, the dairy cattle is being looked into as a major commodity that could be developed based on vulnerability, suitability, and value-chain analyses of DA. Also, the adoption of integrated farming systems such as intercropping, livestock-crops, crops-livestock-fish, and agro-forestry will be promoted to maximize the use of land.

Expand AFF-based enterprises through new and innovative production and marketing schemes. New forms of linkages such as contract farming and corporate farming that will connect AFF enterprises to markets and other upstream services will be established. The government will lead in

market facilitation through the conduct of domestic and international trade fairs and market-matching activities. It will also intensify enterprise-based capacity building and business advisory services for farmers and fisherfolk organizations, including agrarian reform beneficiaries' (ARBs) organizations, to manage profitable AFF-enterprises and to effectively participate in the development of vibrant rural communities.

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

Sectoral Outcome B: Access to Economic Opportunities by Small Farmers and Fisherfolk Increased

Better economic opportunities for small farmers and fisherfolks can be achieved by increasing access to: 1) value-chains; 2) innovative financing; 3) land and water resources; and 4) technology.

Subsector Outcome 1: Access to value-chains increased

Physically link production areas to markets through road- and rail-based transport, inter-island water transport and logistics system. Farm to market roads (FMRs), bridges, tramlines, and railways will be constructed to connect small farmers and fisherfolk to the agricultural value chain.

Inter-island water transport (e.g. roll on-roll off nautical highway) and port facilities such as fish ports, will also be improved to foster greater inter-regional trade of agriculture and fishery produce. Climate risks will also be taken into account in the design of transport networks.

Organize small farmers and fisherfolk in to formal groups and farms into clusters to create economies of scale. Social preparation such as organization-building and management will be conducted among smallholder farmers and fisherfolk who are not yet organized into associations and cooperatives. Efforts to integrate them into larger agribusiness enterprises and institutional buyers will also be pursued.

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

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

Subsector Outcome 2: Access to innovative financing increased

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

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

Subsector Outcome 3: Access to technology increased

Raise investments in R&D for production and post-harvest technologies. This aims to reduce losses, maintain quality and food safety, and increase the value of agricultural and fishery commodities (e.g., ice-making and storage technologies). Investments will be increased to cover the direct cost for R&D, build a critical mass of human resources and improve infrastructure in support of the Harmonized National R&D Agenda for

Agriculture, Aquatic and Natural Resources 2017-2022. This agenda espouses the use of advanced and emerging technologies such as biotechnology, genomics, bioinformatics, nanotechnology, and ICT as tools to find science and technology solutions to AFF problems or to develop new products with significant impact to the sector.

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

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

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

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

Fast-track the resolution of agrarian-related cases involving a large number of affected farmers. Timely and free legal assistance

will be provided to ARBs, including counselling and representation in judicial and quasi-judicial bodies.

Revisit Section 20 of the Local Government Code (RA 7160) which authorizes the LGUs to reclassify agricultural lands for other uses. This law does not include any provision for sanctions or penalties for LGUs that have reclassified agricultural lands more than the allowable limit (i.e., 15% for highly urbanized cities, 10% for component cities, and 5% for 4th-6th class municipalities). In this regard, it is critical that LGUs establish the baseline information on their various land types that would serve as basis for land classification.

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

Complement strategic efforts with environmental and governance strategies. To strengthen efficiency and effectiveness of the aforementioned strategies, the government will:

- expand existing human resource base through increasing opportunities for scholarships on AFF-related courses
- continue to pursue the national convergence initiative using the ridge-to-reef approach

- strengthen resilience to climate and disaster risks
- conduct regular updating of the Registry System for Basic Sectors in Agriculture and Fisheries Registration especially as a targeting tool for the provision of credit and agricultural insurance
- conduct a comprehensive market scoping to analyze competition issues in priority sectors, which may include land market
- ensure meaningful participation of all stakeholders (i.e., through organized groups) in planning, monitoring and implementation
- strengthen coordination and convergence between and among national government agencies, LGUs, civil society organizations, and SUCs along AFF concerns and cross-cutting issues such as food security and nutrition
- intensify public-private partnership especially in rural infrastructure and logistics facilities to support value-chain development.

Major Programs and Projects

The following government interventions will implement key strategies:

- Rice Program
- Corn Program
- High Value Crops Development Program
- Organic Agriculture Program
- Livestock and Poultry Program
- Coconut Productivity Enhancement Program
- Accelerating Planting and Replanting Program for Coconut
- Entrepreneurship Program for Coconut Farmers
- Fisheries Program
- Crop Insurance Program
- Rehabilitation Program
- Integrated Pest Management

These programs and projects have corresponding support components such as irrigation, agricultural machineries and equipment, FMRs, and regulatory and technical services.

Among the projects is the Philippine Rural Development Project (PRDP), which aims to increase farm and fishery production and incomes through climate-resilient agriculture and a more market-oriented approach. PRDP is being implemented in Batangas, Cavite, Laguna and Quezon.

In all of these interventions, convergence between government agencies and the private sector must be intensified and key result areas be regularly monitored. In addition, farmers should be actively involved from production, processing and marketing of the farm produce.

09 Expanding Economic Opportunities in Industry and Services

Expanding Economic Opportunities in Industry and Services

This Chapter assesses the performance of industry and services sector, identifies key challenges that constrain the development of the sector and lays down strategies to address the challenges and achieve expanded economic opportunities in industry and services.

Assessment and Challenges

Industry Output

The industry's output steadily increased from 2011 to 2015 but on a decelerating pace. The highest growth of 6.9 percent growth in 2012 was never surpassed; consequently, the industry's GVA targets

were not met due to decelerated growth of the manufacturing and construction subsectors. Manufacturing remains the major source of growth comprising 86 percent of the industry's output and more than 50 percent of the regional economy.

Table 9.1 Gross Regional Domestic Product in the Industry Sector, Calabarzon, 2011-2015

SECTOR	OUTPUT ('000)				
	2011	2012	2013	2014	2015
Industry	629,125,013	672,757,543	717,601,114	763,993,804	806,198,717
Mining and Quarrying	1,838,350	1,875,682	2,100,696	2,287,171	2,696,475
Manufacturing	548,548,205	581,083,857	620,057,884	664,102,978	700,331,220
Construction	40,741,522	50,325,256	56,507,933	57,710,578	60,609,242
Electricity, Gas and Water Supply	37,996,936	39,472,748	38,934,601	39,893,078	42,561,781
	Growth Rate (%)				
Industry	0.1	6.9	6.3	6.5	5.5
Mining and Quarrying	3.3	2.0	12.0	8.9	17.9
Manufacturing	0.3	5.9	6.7	7.1	5.5
Construction	-3.2	23.5	8.6	2.1	5.0
Electricity, Gas and Water Supply	0.5	3.9	-2.4	2.5	6.7

Source: Philippine Statistics Authority

The manufacturing subsector was accelerating from 2011 to 2014 with 7.1 percent as the highest growth rate within the period. However, this slowed down in 2015 at 5.5 percent due to significant contraction in the office, accounting and computing machinery, in petroleum and other fuel products and in food manufactures. In contrast, the construction subsector which has a decreasing growth in 2013 and 2014, rebounded in 2015 with the increase in private building construction. The number of approved building permits and floor area of construction significantly increased. Electricity, Gas and Water Supply continued to accelerate in 2014 from its contraction in 2013. It accelerated in 2015 at 6.7 percent because of additional solar and wind energy power plant built

and faster growth in the volume of water production. Meanwhile, Mining and Quarrying had the second fastest growth in the industry sector within the period with 17.9 percent in 2015 due to increase in stone quarrying activities. The value of production of sand and gravel also significantly increased in 2015.

The services sector grew at a decelerating pace from 8.1 percent in 2012 to 3.8 percent in 2014 but rebounded to 7.4 percent in 2015. The decrease in transport, storage and communication in 2015 was mainly due to the decrease in total cargo throughput, specifically foreign input decreased from 15,684,382 MT in 2014 to 12,040,867 MT in 2015 (PPA-PMO Batangas).

Table 9.2 Gross Regional Domestic Product in the Services Sector, Calabarzon, 2011-2015

SECTOR	OUTPUT ('000)				
	2011	2012	2013	2014	2015
Services	329,178,347	353,911,552	381,800,493	396,224,882	425,392,864
Transport, Storage & Communication	67,036,558	71,466,700	75,989,886	81,015,668	85,785,427
Trade and Repair of Motor Vehicles, Motorcycles, Personal & Household Goods,	81,438,257	87,376,119	90,596,166	91,479,239	97,792,624
Financial Intermediation	33,513,199	37,228,829	42,441,010	45,739,973	48,481,969
Real Estate, Renting & Business Activities	85,362,809	93,447,168	103,128,122	106,583,547	113,817,636
Public Administration & Defense, Compulsory Social Security	12,928,277	13,784,329	14,613,386	15,189,527	15,301,886
Other Services	48,899,248	50,608,407	55,031,923	56,216,928	64,213,322

Source: Philippine Statistics Authority

The slowdown from 10.4 percent to 3.4 percent growth in the real estate subsector from 2013 to 2014 may be attributed to the new policies on real estate loans implemented by the Bangko Sentral ng

Pilipinas (BSP). Likewise, the financial intermediation performance dropped from 14.0 percent to 7.8 percent due to the new BSP requirements on real estate lending as well as the large number of insurance

claims against the damages brought by typhoon Glenda in 2014. In addition, the decrease in floor areas of private residential

buildings and non-residential private buildings constructed contributed to lower growth.

Table 9.3 Growth Rate in the Services Sector, Calabarzon, 2011-2015

SECTOR	2011-2012	2012-2013	2013-2014	2014-2015
Services	8.1	7.9	3.8	7.4
Transport, Storage & Communication	7.8	6.3	6.6	5.9
Trade and Repair of Motor Vehicles, Motorcycles, Personal & Household Goods,	7.3	3.7	1.0	7.0
Financial Intermediation	11.1	14.0	7.8	6.0
Real Estate, Renting & Business Activities	9.5	10.4	3.4	6.8
Public Administration & Defense, Compulsory Social Security	6.6	6.0	3.9	0.7
Other Services	6.1	8.7	2.2	14.2

Source: Philippine Statistics Authority

Real estate, renting and business activities rebounded from 3.4 percent in 2014 to 6.8 percent in 2015. Business process outsourcing, which continued to expand, contributed to the business activities. Public administration and defense, compulsory social security growth declined from 2012 to 2015 with the government's underspending in 2015 and implementation of the rationalization in the government. Other services recorded a fluctuating trend during the planning period and dip in 2014 at 2.2 percent due to the deceleration of disbursement for SUCs and decreased of total foreign visitor arrivals by 19.4 percent in 2014.

Employment Generation

The industry sector employs 26 percent of the employed in the region. While employment in the industry sector has been increasing it decelerated in 2015 due to slower growth in manufacturing. At 68 percent, manufacturing is the major source of employment in the industry sector, followed by construction at 30 percent. The steady increase in employment can be attributed to the presence of numerous industrial parks and infrastructure logistics.

Table 9.4 Employment Generated in the Industry Sector, Calabarzon, 2011-2015

SUBSECTOR	2011		2012		2013		2014		2015	
	NO. (IN '000)	%								
Industry	1,158		1,200		1,259		1,330		1,332	
Mining and Quarrying	3	0.26	3	0.25	3	0.24	6	0.45	6	0.45
Manufacturing	789	68.13	814	67.83	852	67.67	902	67.82	905	67.94
Construction	340	29.36	355	29.58	378	30.02	403	30.30	402	30.18
Electricity, Gas and Water Supply	25	2.16	28	2.33	24	1.91	25	1.88	25	1.88

Note: Numbers may not sum to total because of rounding

Source: Philippine Statistics Authority

Males outnumbered females in terms of their employment in the industry. Most men were employed in manufacturing and construction, while women were mostly found in manufacturing.

Table 9.5 Employment Generated in the Industry Sub-sectors by Sex (In '000), Calabarzon, 2011-2015

SUBSECTOR	MALE					FEMALE				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Industry	734	769	804	843	855	424	431	453	482	477
Mining and Quarrying	3	3	3	6	6	0	0	0	0	0
Manufacturing	378	397	412	433	442	411	417	439	469	461
Construction	333	348	370	392	393	7	6	8	9	9
Electricity, Gas and Water Supply	20	22	19	18	15	6	7	6	4	7

Note: Numbers may not sum to total because of rounding

Source: Philippine Statistics Authority

The services sector employed 61 percent of the total employed in 2015 making it the largest source of employment in the region. Employment in the services sector had an upward trend but slowed down in 2015.

Table 9.6 Total Employment Generated in the Services Sector by Sex, Calabarzon, 2011-2015

EMPLOYMENT ('000)	2011	2012	2013	2014	2015
Total	2,766	2,833	2,915	3,038	3,102
Female	1,400	1,444	1,463	1,519	1,565
Male	1,364	1,389	1,452	1,519	1,535

Note: Numbers may not sum to total because of rounding

Source: Philippine Statistics Authority, Labor Force Survey

From 2011 to 2015, Wholesale and Retail Trade recorded the highest percentage in employment generation. In 2015, 37 percent of females and 27 percent of males were employed in the Wholesale and Retail Trade combined. Males were mainly employed in Wholesale and Retail Trade and Transport and Storage. (MSMEs) assisted by Department of Trade and Industry (DTI) Region IV-A generated 28,080 jobs in 2015. This is 12.72 percent higher than the target for DTI-assisted MSMEs however it was considerably lower compared to the rate of growth in 2014.

In terms of employment generation, the micro, small and medium enterprises

Table 9.7 Employment Generated in the Services Sub-sectors by Sex (In '000), Calabarzon, 2012-2015

SUBSECTOR	MALE				FEMALE			
	2012	2013	2014	2015	2012	2013	2014	2015
Services	1,389	1,452	1,519	1,535	1,444	1,463	1,519	1,565
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles	366	395	413	407	541	546	553	566
Transport and Storage	369	381	392	404	14	19	17	22
Accommodation and Food Service Activities	118	125	138	125	158	161	171	176
Information and Communication	33	39	32	41	23	25	24	28
Financial and Insurance Activities	32	28	35	35	41	39	50	46
Real Estate Activities	20	19	18	20	24	27	28	26
Professional, Scientific and Technical Activities	22	19	18	17	15	16	17	17
Administrative and Support Service Activities	100	106	111	125	68	64	72	83
Public Administration and Defense, Compulsory Social Services	131	136	143	142	87	95	98	102
Education	37	36	44	47	108	111	122	120
Human Health and Social Work Activities	21	19	23	26	52	52	46	54
Arts, Entertainment and Recreation	51	53	53	49	26	25	30	35
Other Service Activities	85	89	97	93	209	220	232	259
Activities of Households as Employers; Undifferentiated Goods and Services Producing Activities of Households for Own Use	5	6	3	3	77	64	59	30
Activities of Extra-territorial Organization and Bodies	0	-	-	-	-	-	-	-

Notes: Details may not add up to totals due to rounding
Starting 2012-new industry grouping.

Source: Philippine Statistics Authority, Labor Force Survey

Table 9.8 Employment Generated from DTI-Assisted MSMEs, Calabarzon, 2013-2015

YEAR	TARGET	ACTUAL	GROWTH RATE
2013	22,000	20,690	-
2014	22,647	26,460	27.89
2015	24,911	28,080	6.12

Source: DTI Region IV-A

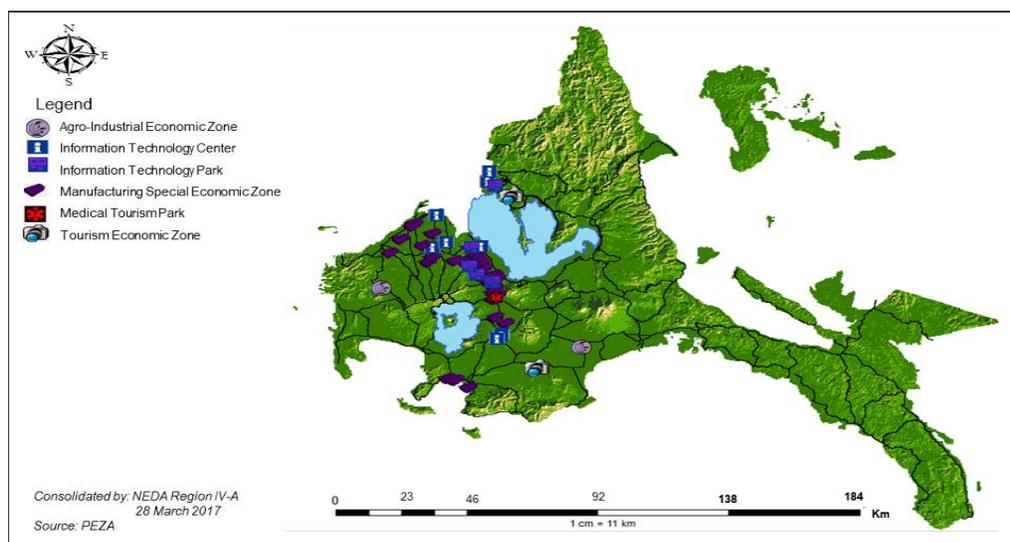
Regional Productivity

Economic zones significantly provided employment and growth in the region. A total of 53 economic zones were located in Calabarzon with 1,781 industry locators (Figure 9.1). Among these, 35 are

Manufacturing Special Economic Zones (MSEZ), 8 are IT Centers, 5 are IT Parks, 1 is a Medical Tourism Park (MTP), 2 are Tourism Economic Zones (TEZ) and 2 are Agro-Industrial Economic Zones (AIEZ). Laguna Province with 19 economic zones has the most number of economic zones

among the provinces. Majority of MSEZ are located in Laguna, Cavite and Batangas while the only MTP in the region is located in the Province of Batangas. On the other hand, Quezon has only one economic zone which is an AIEZ.

Figure 9.1 Calabarzon Economic Zones, 2016



Exports of industries located in economic zones generally increased from 2011 to 2015. However, the rate of increase hardly rose from 2013 to 2015. Merchandise exports increased only by 0.11 percent and 0.44 percent in 2014 and 2015,

respectively. This was much lower than the 5.07 percent growth in 2013 due to the global decline of demand for electronic products.

Table 9.9 Merchandise Exports, Total Approved Investments and Domestic Sales in Calabarzon, 2011-2015

INDICATOR	2011	2012	2013	2014	2015
TARGET					
Merchandise Exports (US\$)			Increasing	Increasing	Increasing
Total Approved Investments (PhP M)			Increasing	Increasing	Increasing
Domestic Sales (PhP M)			811	915	1000
Value					
Merchandise Exports (US\$)	21,943.97	21,761.90	22,864.78	22,890.39	22,990.77
Total Approved Investments (PhP M)	112,850.77	120,371.84	80,900.14	103,849.50	106,326.89
Domestic Sales (PhP M)	661.63	719.34	850	978	1,063
Growth Rate					
Merchandise Exports (US\$)		-0.83	5.07	0.11	0.44
Total Approved Investments (PhP M)		6.66	-32.79	28.37	2.39
Domestic Sales (PhP M)		8.72	18.16	15.06	8.69

Source: PEZA, DTI Region IV-A

On the other hand, there was an unsteady increase in the level of total approved investments. Total approved investments significantly declined in 2013 at 32.79 percent. Despite its recovery in 2014 at 28.37 percent, the rate of growth slowed at 2.39 percent in 2015. Increase in the value of approved investments and exports can be attributed to an increasing number of industry locators since 2012, averaging at seven percent per year.

The same with exports from industries located inside the economic zones, domestic sales from DTI-assisted MSMEs were generally increasing but the rate of growth was decelerating. However, value of domestic sales from 2013 to 2015 is higher on the target values for the same period. The actual values are 6 percent higher than the targets on the average. Increase in domestic sales are generated from trade fairs (local, regional and international), market matching activities, *pasalubong* centers, and trade house operated by DTI provincial offices.

Tourism

Domestic tourists continue to be the biggest contributor to the tourist arrivals in the Region. Overnight domestic tourists

increased by 34.30 percent from 2013 to 2014 while same-day visitors grew by 36.96 percent from 2014 to 2015. The volume of same-day visitors in 2015 reached 21,613,300 which grew by 147.87 percent from 8,719,735 in 2012 due to the active participation of the local government units in the submission of tourism data to the Department of Tourism (DoT) Region IV-A. The continuous promotion of tourist attractions and destinations through the production and distribution of tourism brochures to national and regional tourism fairs and events pave the way to an increasing tourist arrivals in the region. The media invitational tour program likewise entices the travel writers and bloggers to publicize these destinations less travelled through feature writing in major dailies.

In 2015, the top three provinces with the highest the same-day visitors were Quezon with 24.42 percent share, followed by Laguna with 23.78 percent share and Cavite with 18.83 percent share. Quezon maintained its top position for two years from 2014 to 2015 respectively, followed by Cavite in 2014 and Laguna in 2015.

Table 9.10 Target and Actual Tourism Data, Calabarzon, 2011-2015

INDICATOR	2011		2012		2013		2014		2015	
	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	
Same day arrivals			8,719,735		10,015,912		15,781,310		21,613,300	
Domestic			8,272,354		9,513,903		15,356,981		21,142,633	
Foreign			447,381		502,009		424,329		470,667	
Overnight tourists	5,340,742*	increasing	1,293,282	increasing	1,930,813	increasing	2,529,620	increasing	4,318,625	
Domestic	5,040,727*	increasing	1,207,221	increasing	1,787,459	increasing	2,400,697	increasing	3,888,788	
Foreign	331,632*	increasing	80,753	increasing	138,347	increasing	123,787	increasing	426,833	
Overseas Filipinos	10,383*	increasing	5,308	increasing	5,007	increasing	5	increasing	3,004	
Accredited tourism	66	increasing	80	increasing	95	increasing	141	increasing	191	

INDICATOR	2011		2012		2013		2014		2015	
	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	
enterprises										
Rooms from DOT-accredited accommodation establishments	1,764	increasing	1,849	increasing	1,959	increasing	2,623	increasing	3,188	
Employees employed by DOT-accredited establishments	1,457	increasing	3,538	increasing	3,668	increasing	4,663	increasing	4,786	

Note: same day and overnight visitors are lumped together

Source: DOT Region IV-A

Table 9.11 Growth rate of Tourism Industry, Calabarzon, 2011-2015

INDICATOR	2012-2013	2013-2014	2014-2015
Same day arrivals	14.86	57.56	36.96
Domestic	15.01	61.42	37.67
Foreign	12.21	(15.46)	10.92
Overnight tourists	49.29	31.00	70.72
Domestic	48.06	34.31	61.99
Foreign	71.32	(10.52)	244.81
Overseas Filipinos	(5.67)	2.58	(41.51)
Accredited tourism enterprises	18.75	48.42	35.46
Rooms from DOT-accredited accommodation establishments	5.94	33.89	21.54
Employees employed by DOT-accredited establishments	3.67	27.12	2.64

Source: DOT Region IV-A processed by NEDA Region IV-A

In 2012, the total inbound visitors reached 1.293M which increased by 233.92 percent in 2015. The top 3 foreign overnight tourists are from Japan, Korea and USA. Japanese tourists accounted for 10.12 percent of the total foreign tourists, Korean tourists for 9.39 percent and American tourists for 2.77 percent of the total foreign tourists.

The increase in arrivals can be attributed to the stronger marketing and promotional campaigns especially in the launching of “IT’S MORE FUN IN THE PHILIPPINES” campaign of the DoT. Business missions, long Christmas and summer vacations and the completion of the roads leading to tourist destinations likewise contributed to increasing the number of tourists. A decrease in foreign tourists arrivals though

was noted in 2014 due to problems on data capture with the creation of the DoT Regional Offices Calabarzon and Mimaropa in 2013.

The increase in accredited tourism enterprises, rooms from accredited accommodation establishments, and employees employed by accredited establishments are results of DoT’s massive accreditation campaign, on-line system and the accreditation- on- wheels project of the regional office.

The various trainings, such as Tourism Awareness and Basic Tourism Statistics provided for a better understanding on the tourism industry and the importance of data gathering and reporting. The strong partnership with the tourism stakeholders

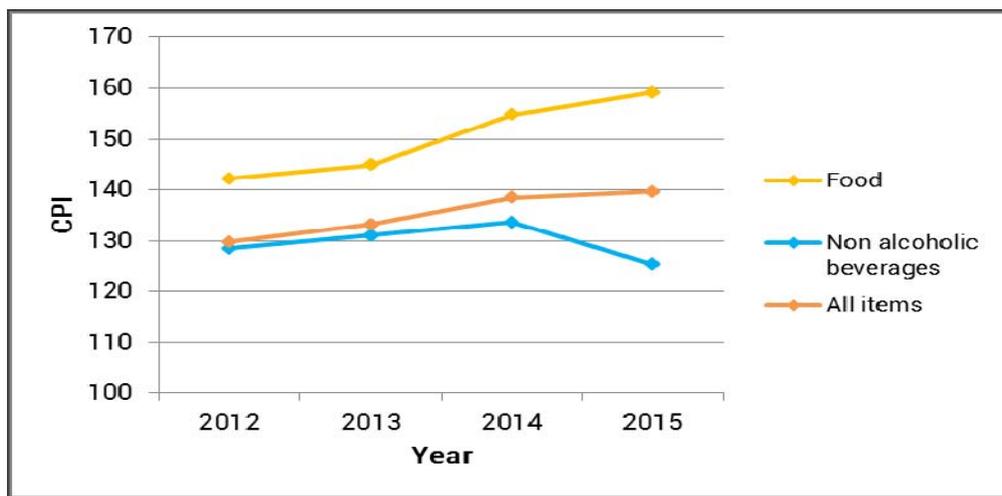
from private and public sector paved the way to an increase in tourist arrivals and accredited establishments in the region.

Business Climate

Used to determine the inflation rate, the Consumer Price Index (CPI) is a measure of change in the price level of a market

basket of consumer goods and services purchased by an ordinary household. The CPI of food and non-alcoholic beverages increased from 2012 to 2014, but in 2015, the CPI for non-alcoholic beverages declined as a result of adequate domestic supply (BSP, 2015). Changes in the CPI can be attributed to the volatility of oil prices.

Figure 9.2 Consumer Price Index, Calabarzon, 2012-2015



Source of data: PSA

Protection of Consumer Welfare

The level of consumer awareness and satisfaction of quality goods and services continues to improve due to regular conduct of consumer advocacies and education activities. However, the levels of awareness and satisfaction both in 2014 and in 2015 were lower than the targets.

For product safety standards, the number of monitored firms increased. It significantly increased in 2013 with 12 times more firms monitored. Two violating firms were found in 2014 and also

in 2015. While only one was penalized in 2014, this improved in 2015 with 100 percent of violating firms penalized.

Regular conduct of price monitoring ensures adherence of firms to the suggested retail price and Price Act. The number of monitored firms increased from 260 in 2012 to 1,502 in 2015 and no firm was found violating.

In the case of consumer complaints, all consumer complaints were resolved, however, they were not within the prescribed time resulting to unmet target in 2013.

Table 9.12 Protection of Consumer Welfare, Calabarzon, 2012-2015

ITEM	2012	2013		2014		2015	
	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
Level of consumer awareness and satisfaction of quality goods and services	53%	55%	56%	60%	57%	67%	62%
<i>Product safety standards</i>							
Number of monitored firms	42	520	512	520	564	520	549
Number of firms found violating	0	none	0	none	2	none	2
Proportion of violating firms penalized	n/a	90%	n/a	90%	50%	90%	100%
<i>Suggested retail price and adherence to Price Act</i>							
Number of firms monitored	260	1300	1109	1300	1420	1300	1502
Number of firms found violating	0	none	0	none	0	none	0
Proportion of violating firms penalized	n/a	100%	n/a	100%	n/a	100%	n/a
<i>Acts expeditiously on all kinds of consumer complaints</i>							
Percentage of consumer complaints resolved within the prescribed time of mediation	82%	82%	81%	82%	85%	82%	82%

Source: DTI Region IV-A

The industry sector remains the engine of growth for the region. However, while exports, investments and domestic sales were increasing, the rate of growth was decelerating. The following are the challenges that can affect the growth of the industry sector:

- negative impacts of ASEAN integration including free trade agreements with Korea and China while seizing the opportunities to participate in their supply chain
- possible increase in taxes due to tax reform
- weak link of MSMEs as suppliers of inputs to multi-national and big establishments that dominate the manufacturing subsector
- delayed growth of the small and medium enterprises (SMEs)
- limited responsiveness and relevance of current education curricula to labor market demands and industry requirements

- less job vacancies as a result of end of contract (endo)
- volatility in foreign exchange rates and financial markets that continue to pose a challenge to export-oriented industries
- proliferation of local ordinances prohibiting plastic and styro products which affects the petrochemicals industry

The following are the challenges identified in the services sector:

- absence of Tourism Office/Tourism Officer in the local government
- limited submission of tourism statistics
- lack of LGU tourism master plans
- traffic congestion leading to tourist destinations such as Calamba City and Los Banos in Laguna, Sariaya in Quezon, Bauan and Batangas City in Batangas and Antipolo City and Cainta in Rizal, to name a few
- poor access road to other tourism sites

- poor implementation of BP 344: “An Act to Enhance the Mobility of Disabled Persons by Requiring Certain Buildings, Institutions, Establishments and Public Utilities to Install Facilities and Other Devices
- low logistics performance:
 - longer time of border compliance due to Bureau of Customs, inspections and port handling
 - slow release of import permits and process of releasing container from the port
- limited capacity to supply the new services required by ecozone locators such as machine calibration, water testing, telecommunications financial, transportations, logistics and storage services that may bring an impressive growth of service sector
- dependence of the IT/BPM industry to the performance of foreign markets and its susceptibility to market shocks and uncertainties
- negative impacts of ASEAN integration-mobility of graduates, mobility of products/ low level of preparedness of industries to the impact of AEC 2015 and inter-regional trade.

Prospects

The Calabarzon region is the country’s industrial hub for manufacturing industries. The priority industries of the region which are electronics, automotive, metals, IT-BPM and petrochemicals are guided by industry roadmaps created by the Industry Development Program of the Board of Investment to enhance competitiveness and further boost growth.

The petrochemicals and metal casting industries are enabling industries to other industries such as transportation, electronics, construction, agriculture and fisheries, telecommunications, among others. The growing domestic market and urbanization on petrochemicals will create significant consumer-led growth. The demand from downstream industry and domestic sales are expected to increase. On the other hand, while the contribution of metal casting to the country’s GDP is minimal, the development of other metals engineering industries will contribute to increasing growth of the economy. The metal casting industry is driven by the large domestic market in automotive, mining, construction and utilities.

Electronic products remain the top export of the region, constituting about half of the country’s total exports. The electronics industry will continue to have strong export performance. However, the industry’s backward linkage with the rest of the economy is currently weak.

The region has a strong automotive and autoparts production industry that is geared towards the export market. The top destination of exports on vehicle parts and components is Japan, followed by the ASEAN countries. The industry is expected to sustain growth with the country’s status as a net importer of motor vehicles. Moreover, the third wave of rapid motorization growth in the Philippines is expected to generate robust demand in the domestic market driven by macro-economic growth and strong demographics.

The region is among the top destinations of IT-BPM industry in the country that is an important generator of jobs for skilled Filipinos. Growth and expansion of the industry which significantly diversified in breadth, scale and maturity of services will continue. Sta. Rosa City is among the highly urbanized areas that were identified in the Next Wave Cities for IT-BPM expansion.

The region is also one of the few manufacturing hubs in the country of specific aerospace parts for commercial aircrafts. The aerospace industry has a growing global market with steadily growing export revenues. Based on the Aerospace Industry Roadmap, export revenues are projected to reach US\$ 1.5

million by 2022. The growth of this lucrative industry will further strengthen Calabarzon's manufacturing and also generate more quality jobs.

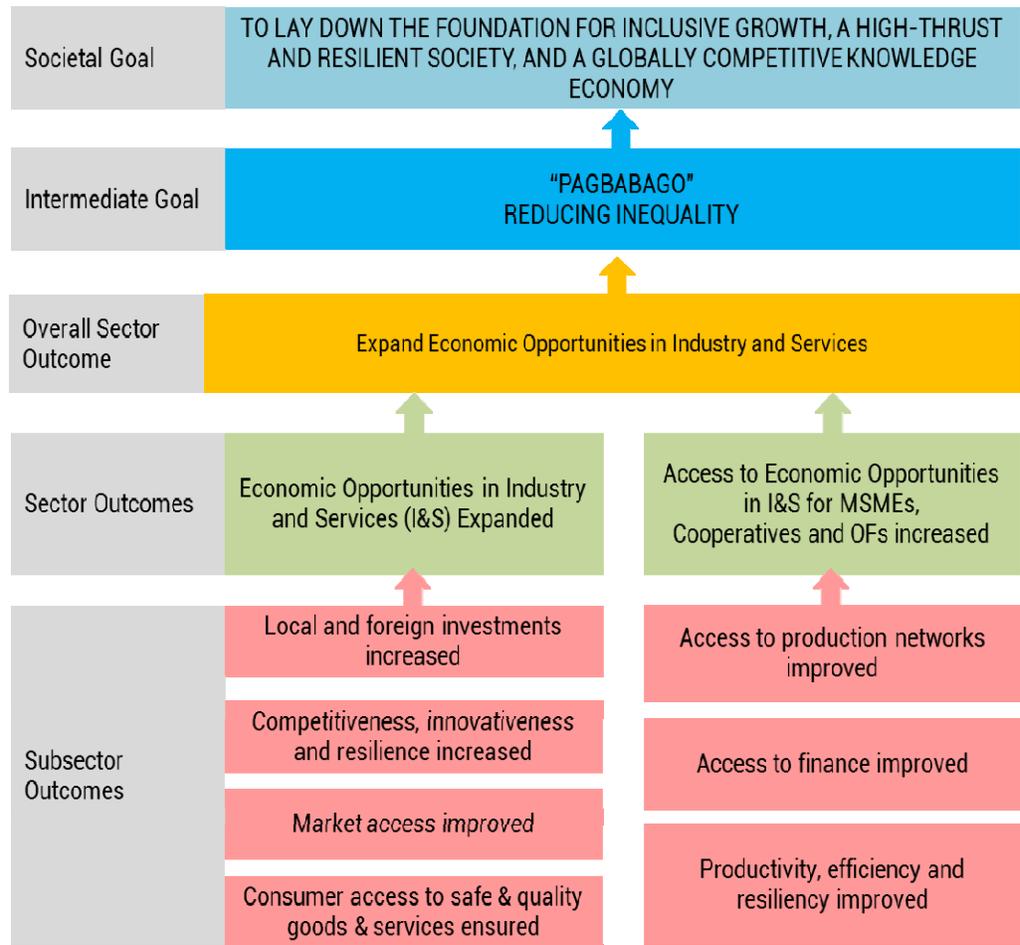
The recent staging of the Miss Universe Pageant in the Philippines provided the energy for more vibrancy in the tourism sector. The warmth and hospitality of the Filipino people, rich culture, beautiful sceneries and pristine beaches were outstanding. Inclusion of Batangas as one of the tourist destinations for the pageant had provided an avenue for promotion and marketing to a larger population. In addition, business missions are seen effective to promote the region's tourist destinations.

Strategic Framework

The industry and services sectors as dominant drivers of growth in the region are fundamental to the realization of inclusive growth. The plan aims to achieve reduced inequality through expanding economic opportunities in industry and

increasing access to economic opportunities for MSMEs and cooperatives. Three intermediate outcomes were identified for each sector outcome as shown in Figure 9.3.

Figure 9.3 Strategic Framework for Expanding Economic Opportunities in Industry and Services



Targets

Table 9.13 Plan Targets to Expand Economic Opportunities in Industry and Services, 2017 – 2022

INDICATOR	BASELINE	ANNUAL TARGETS					END OF PLAN TARGET (2022)	RESPONSIBLE AGENCY
	2015	2017	2018	2019	2020	2021		
Sector Outcome A: Economic opportunities in I&S expanded								
Gross Value Added (GVA) in industry increased	5.50%	5.0-7.0%	5.2-7.0%	5.4-7.1%	5.6-7.1%	5.8-7.1%	6.0-7.2%	PSA
GVA in services increased	7.4%	7.0%	7.4%	7.5%	7.6%	7.7%	7.8%	PSA
Manufacturing GVA as a proportion of GRDP increased	53.71%	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	PSA
Employment generated from industry increased ('000)	1,332	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	PSA
Male	857,860	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	
Female	476,544	Increasing and comprised at least 40%						
Manufacturing employment as a proportion of total employment	17.8%	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	PSA
Employment generated from services increased ('000)	3102	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	PSA
Number of rooms from DOT accredited accommodation establishments	3,188	3,300	3,350	3,400	3,450	3,500	3,550	DOT
Number of employees employed by DOT-accredited establishments	4,786	5,000	5,100	5,200	5,300	5,400	5,500	DOT
Subsector outcome: Local and Foreign Investments Increased								
Total approved investments increased (PhP M)	103,849.50	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	PEZA, DTI-BOI
Number of same day visitors increased ('000)	21,613.30	22,047.73	22,268.20	22,490.89	22,715.80	22,942.95	23,172.38	DOT
Number of overnight visitors increased ('000)	4,318.63	4,380.00	4,410.00	4,440.00	4,470.00	4,500.00	4,530.00	DOT
Number of accredited tourism establishments	191	211	221	232	244	256	269	DOT
Subsector outcome: Market Access Improved								

INDICATOR	BASELINE 2015	ANNUAL TARGETS					END OF PLAN (2022)	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Merchandise exports increased (US\$ M)	-	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	DTI-EMB
Services exports increased	22,890.77	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	PEZA
Subsector Outcome: Consumer access to safe and quality goods and services ensured								
Increased level of consumer awareness and satisfaction of quality goods and services	62%	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	DTI
Percentage of consumer complaints resolved within the prescribed time - mediation (10 days) and arbitration (20 days)	82%	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	
Sector Outcome: Access to Economic Opportunities in I&S for MSMEs, Cooperatives and OFs Increased								
Proportion of small-scale industries to total industries	-	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	DTI
Subsector outcome: Access to Production Networks Improved								
Number of MSMEs participating in global value chains	-	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	DTI
Subsector outcome: Access to Finance Improved								
Proportion of small-scale industries (enterprises) with a loan or line of credit increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	-
Total number of credit cooperatives	37	28	27	26	26	25	24	CDA
Subsector outcome: Productivity, Efficiency and Resilience Improved								
Number of barangay micro business enterprises registered increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	DTI, DOLE

Note: To better present the indicator on employment generation in the industry, it was disaggregated by sex. Aside from consumer price index to determine price changes in the regional economy especially for industry, the implicit price index (IPIN) was added. The IPIN represents an overall view of the price movement in the economy and is as such the most comprehensive price index. The indicator included the subsectors under the industry sector.

Strategies and Interventions

The following are priority strategies supportive of the subsector outcomes in the industry and services sectors:

Sector Outcome: Expanded Economic Opportunities in Industry and Services

A. Local and foreign investments increased

- *Continue investment promotion activities.* Promotion investment activities will be intensified that will attract more investments. This will involve regional trade fairs, localization of roadmaps on priority industries and fora with industry players.
- *Fast-track the expansion and development of economic zones.* Republic Act No. 8748 also known as the Special Economic Zone Act identified Municipalities in Quezon Province as viable areas for economic zone development. This areas include Mauban, Infanta, Real, Atimonan, Tiaong and Pagbilao.
- *Implement the Comprehensive National Industry Strategy.* This will upgrade industries such as manufacturing and services while strengthening backward and forward linkages with domestic and global value chains including MSMEs.
- *Improve capacities on IT-BPM.* Capacity of LGUs, investors, stakeholders and institutions will be

enhanced to provide more enabling environment for IT-BPM industry.

- *Sustain the gains in tourism.* This will include activities such as market and product development, tourism standards and regulation services, conversion of same-day tourists to overnight tourists, development of other potential tourism sites and tourism circuits in preparation for the increasing foreign tourists and creation of stronger partnership with the private and public sector.
 - *Implement the National Tourism Development Plan 2017-2022.* Once approved, the region will contribute in implementing the plan particularly in improving tourism products and competitiveness in identified tourism development areas in the region underscoring convergence of public and private initiatives for inclusive tourism development.
 - *Support endogenization of local economic zones.* The establishment of feasible domestic economic zones for MSMEs will be encouraged in capable or competitive local governments through similar incentive systems in traditional PEZA managed economic zones. The domestic economic zones will be integrated with existing economic and Freeport zone activities to improve MSME productivity and strengthen industry backward and forward linkages.
- #### B. Competitiveness, innovativeness and resilience of industries increased
- *Enhance enabling environment.* An enabling environment is important to sustain and enhance growth of

industries in the region. In order to attain this, a more predictable and responsive policy environment will be promoted and inter-institutional coordination for policy-making and implementation will be strengthened.

- *Improve ease of doing business.* The gains in ease of doing business will be sustained through reduction on cost, duration of business permit approval process and number of signatories. A one-stop-shop for business licensing and processing will also be institutionalized.
- *Adoption of technologies.* The adoption and commercialization of science and technology innovation including entrepreneurship will be accelerated.
- *Enhance regional competitiveness.* Enhance the competitiveness as a global business hub or a dynamic setup using hub and spoke model of operations, which includes setting up hubs in key geographical locations and expanding the spokes nearby.
- *Identify and facilitate the specialization of industry.* Specialization will be identified and facilitated by province to foster cooperation and complementation among provinces.
- *Promote greening of industries.* Best practices from green economic development project and other initiatives will be promoted to create a green economy.
- *Improve resilience to natural disasters.* An area business continuity as a strategy will be mainstreamed to reduce the impact

of natural disasters in industry and economy.

- *Strengthen academe-industry linkages.* This will involve developing culture of entrepreneurship among the youth and encourage industries to initiate development of training programs tailored-fit to specific industry skills needed and submit to TESDA for approval and certification, and upgrading of teaching skills to address job-skills mismatch.
- *Conduct research.* Conduct studies such as a tracer study/research on employability of graduates and life cycle assessment of plastics and styrofoam products.
- *Improve percentage of tourism data collected.* The collection of tourism data from accredited and non-accredited tourism establishments and from tourist attractions/destinations will be enhanced. A tourism development program on local statistics will also be developed through a conduct of data appreciation seminars by PSA and DoT.
- *Conduct industry training.* Trainings for LGUs on tourism awareness, cultural tourism, product and market development and tourism statistics will be provided.
- *Amend PPA and CAAP Charters.* Separating overlapping and conflicting functions or mandates of the regulatory agencies affecting operation and establishment of industries will be pursued.

C. Market access improved

- *Improve and develop access roads.* Aside from infrastructure development, this will involve expansion of Batangas port and development of logistics corridors, i.e., the Subic-Clark-Batangas Logistics Corridor. The number of vessels for cargo services in Batangas Port will also be increased to decongest Manila.
- *Establish food tracer.* A food tracer that will include the point of origin of raw inputs such as farm origin will be established which can be provided in food label of products.
- Consumer access to safe and quality goods and services ensured
- *Promote consumer welfare.* This will be done through strict enforcement of regulations and standards to protect consumers against unfair practices such as profiteering and substandard products and increase awareness on consumer rights.
- *Promote linkages and partnerships.* Partnerships with private sector and professional associations will be pursued to strengthen consumer protection mechanisms.

Sector Outcome: Increased Access to Economic Opportunities for MSMEs and Cooperatives in I&S

A. Access to production networks improved

- *Promote Calabarzon industry clustering.* The industry clustering of DTI will be highly supported to

improve MSMEs' access to resources and industry markets

- *Support the economic independence of PWDs.* The transition to work program for PWDs and Executive Order 417 will be strictly implemented.

B. Access to finance improved

- *Review financial regulations.* Current relevant financial regulations will be reviewed to determine the viability of easing caps/limits on savings instruments for deployment to local and international investment opportunities matched with safeguard mechanisms.
- *Implement policy adjustments.* Relevant financial policies will be reviewed and implemented to provide ease of access to financial services and enable the marginalized sectors and MSMEs to participate in capital markets and expanding their businesses. In addition, program and projects such as the Credit Surety Fund Program will be promoted to increase credit worthiness of MSMEs.
- *Enhance role of cooperatives.* The roles of cooperatives as target of information and education campaigns will be enriched with inclusion of providing investment packages.

C. Productivity, efficiency and resilience improved

- *Implement the MSME development plan.* Implement the MSME Development Plan 2017-2022

particularly the productivity and efficiency portfolio that will foster convergence of the different livelihood and entrepreneurship programs of government agencies. Specifically, the plan will enhance MSMEs' productivity and competitiveness to develop and strengthen the value and supply chain linkage with globally competitive industries such as electronics, automotive and petrochemicals.

- *Raise quality of products.* Better quality of products will be pursued to be at par with foreign products. MSMEs will be further developed through shared service facility, SME roving academy, *Negosyo Centers* of the Department of Trade and Industry and Small Enterprise Technology Upgrading Program (SETUP) of the DOST (Department of Science and Technology)
- *Improved backbone services.* Important services such as financial, telecommunication, transport and logistics will be improved to facilitate the movement of knowledge, technologies, goods and services, and to link MSMEs in domestic and global markets.
- *Promote a more inclusive business.* Capability seminars and trainings for business and tourist establishment personnel on DRR for PWDs will be conducted. This will be included required before issuance of accreditation/business permit. A legislative agenda requiring a bus company to have an accessible door lift for PWDs and senior citizen will be proposed. This will be

required before accreditation of the bus company.

10 Accelerating Human Capital Development

Accelerating Human Capital Development

This chapter focuses on providing more options for the development of human capital potentials and reducing the inequalities in human development through increase in human capital investment and increased returns in terms of productivity, income and employability. This chapter will specifically contribute to the desired intermediate goal of reducing inequality, or “Pagbabago”.

Assessment and Challenges

In the past four years, Calabarzon has been in the forefront in providing quality education, health and nutrition, and employment opportunities and services for its stakeholders. However, more interventions are still needed to achieve the region’s goals in terms of increasing human development potential.

Nutrition and Health

Improving nutrition situation. Nutrition data (Table 10.1) showed that under nutrition is still prevalent in the region due to insufficient child nutrition especially breast feeding, poor food choices of children, and food insecurity. Also considered as factors that lead to under nutrition are lack of family planning and inadequate childcare to address feeding peculiarities.

However, while the region was able to decrease over-nutrition in the past four years much has yet to be done to reduce proliferation of empty calorie food, having more physical activity of children and adults and getting out of the sedentary lifestyle.

The proportion of households with per capita intake below 100 percent dietary energy requirement also decreased from 2012 to 2015. This is the result of convergence of efforts of both government and private sector in the region.

The limited capacity of some LGUs in the implementation of health and nutrition programs, absence of Local Nutrition Committee and Population Committee, and limited budget for nutrition programs are among challenges faced in region’s health and nutrition.

Table 10.1 Nutrition Data, Calabarzon, 2012-2015

Indicator	2012 (BASELINE)	2013	2014	2015	2016 (END OF PLAN TARGET)
Prevalence of underweight and severely underweight preschool children (0-71 months) decreased	5.70%	7%	7%	5.12%	4.11%
Prevalence of underweight and severely underweight preschool children (0-71 months) decreased	5.70%	7%	7%	5.12%	4.11%
Proportion of HH with per capita intake below 100% dietary energy requirement decreased	70.1	68.3	-	-	Decreasing
Children 0-5 years old (stunting)	27.4	25.2	12.14	27.7	-
Children 0-5 years old (wasting)	6.5	8.8	3.56	7.6	-

Note: - No data

Sources: National Nutrition Council IV-A, FNRI

Increasing infant, under 5 years old, and maternal mortality rates despite the increasing proportion of births delivered in health facilities and attended by health professionals. Maternal mortality rate in the region recorded a surge from 39 per 100,000 live births in 2012 to 76 in 2015. The increase in maternal deaths can be attributed to inaccessible locations of birthing homes especially in the rural area, limited availability of midwives and other health professionals and pregnancy complications, among others. Likewise, the target on decreasing infant mortality rate was not attained due to insufficient post natal care such as new born screening and immunization, inadequate child spacing, insufficient child care and knowledge on breast feeding. Moreover, the under-five mortality rate continued to increase from 2012 to 2015 due to unhealthy lifestyles, insufficient supply of food as a result of low family income and poverty, unsanitary household condition, and poor access to health services such as immunization. On a related note, the percentage of one

year old fully immunized children increased overtime. However, despite the improvement, the region has failed to meet the target because of insufficient supply of vaccine, resistance of mothers due to religious and traditional beliefs, and inadequate information, education campaigns.

Calabarzon remained malaria-free while tuberculosis and HIV detection rate increased. Among the communicable diseases prevalent in the country, the region focused on the prevention, detection and cure of Tuberculosis (TB), HIV, Malaria, and other emerging communicable diseases. TB detection rate increased from 2012 to 2015 due to increase in the number of TB patients seeking medical assistance. However, The TB cure rate in the also increased due to special attention given by the Department of Health (DOH) in partnership with the rural health units for TB detection and cure but the limited roll-out of primary

complex package for children is still considered as a challenge.

HIV cases surged from 443 cases in 2012 to 1276 cases in 2015. The increase in HIV reported cases in the region can be attributed to increasing cases of prostitution and risky sexual behaviors. On a positive note, the increase can also be attributed to better detection system and media advocacies that reduce the social stigma towards HIV-detected patients.

On Malaria mortality rate, Calabarzon sustained its status as a malaria free region. This can be attributed to the convergence of efforts among LGUs and DOH in providing all the necessary equipment, supplies and materials, medicines and capability-building activities in preventing malaria outbreak.

Contraceptive prevalence rate and Regional health insurance coverage overturned. The contraceptive prevalence rate and regional health insurance coverage increased from 2012 to 2014 but the positive performance was overturned in 2015. This may be due to the issuance of temporary restraining orders on contraceptive products and supplies. Hence, there is still a need to intensify advocacy on responsible parenthood and family planning program.

Health manpower to population ratio remained high. The region's health manpower to population ratio is increasing despite the manpower augmentation provided by DOH to local government units. The persistent gap can be attributed to the proximity of the Calabarzon to the Bicol Region and MIMAROPA. For example, some of the local hospitals

reported attending to health concerns of residents coming from Bicol and MIMAROPA, among others.

Target on number of households with sanitary toilets and access to safe water was not met. Data showed a fluctuating performance with regard to the target to increase the number of households with sanitary toilets and access to safe water. The region as net in-migration area is continually faced with the challenge to provide not only sanitary toilet facilities and access to safe water but also affordable housing especially for the informal settlers.

Other regional nutrition and health concerns recognized. Mental health is among the concern that was not prioritized during the previous years. The increasing cases of suicide, depression, Alzheimer's disease, and dementia must also be given importance and interventions must be in place. DOH Region IV-A is currently capacitating its human resource in providing mental health interventions. Another challenge encountered in terms of health care delivery is the full implementation of no balance billing (NBB). The region is yet to achieve the target of 100 percent NBB due to procurement problems and concerns of beneficiaries profiling. Table 10.2 summarized the health indicators and accomplishments from 2012 to 2015.

Table 10.2 Health Data, Calabarzon, 2012-2015

Indicator	2012 (BASELINE)	2013	2014	2015	2016 (END OF PLAN TARGET)
Maternal mortality ratio (per 100,000 live births) decreased	39.1	52	50	76	29
Infant mortality rate (per 1,000 live births) decreased	7.5	7	7	9	6.4
Under five mortality rate (per 1,000 live births) decreased	7.8	8	10	13	7.2
Proportion of births attended by health professional increased	90%	89%	87%	88%	Increasing
Proportion of births delivered in facility increased	90%	70%	80%	84%	Increasing
Malaria Mortality decreased	0.01%	0%	0%	0%	0%
Malaria morbidity decreased (per 100,000 population)	0.00%	0.09%	0%	0%	0%
Percent of 1 year old children fully immunized children increased	59.50%	68%	58%	65%	100%
Tuberculosis case detection (all forms) increased	75%	83%	101%	96%	90%
TB success rate	79%	84%	89%	91%	90%
HIV prevalence decreased	443	669	867	1267	Decreasing
Health manpower to population ratio within the standard (MD)	1:57,296	1:69417	1:55,150	1:84,624	1:20,000
Health manpower to population ratio within the standard (Nurses)	1:29,749	1:25,839	1:25,839	1:32,867	1:20,000
Health manpower to population ratio within the standard (Midwife)	1:8,082	1:9951	1:25,839	1:12,542	1:5,000
Percentage of HH with sanitary toilets increased	84.60%	84.00%	85.00%	55%	90%
Percentage of HH with access to safe water increased	91.90%	93%	92%	60%	90%
Contraceptive prevalence rate (all methods) increased	30%	33%	40%	25%	36.1%
Regional Health Insurance Program coverage increased	90%	90%	103%	92%	100%

Source: DOH Region IV-A

Basic, Higher and Technical Education

Basic education completion rate and cohort survival rate have increased over time and surpassed the end of plan targets. However, the declining net enrollment rate and very low achievement rate remains to be a challenge. While higher education performance varies from the positive feats of Center of Excellence (COE), Center of Development (COD) and number of higher education institution (HEI) graduates to the unmet targets on program

accreditation and HEI faculty with Masters and Doctorate degrees, clearly, the Technical Vocational Education and Training (TVET) has surpassed all its end of plan targets. Moreover, the reforms on the educational system provides for positive future scenarios. Tables 10.3 and 10.4 shows the 2012 to 2015 performance of the education sector.

Basic Education

Adjustments on basic education due to reforms on educational system. The Kindergarten Act of 2012 (RA 10157) and

Enhanced Basic Education Act of 2013 (RA 10533) resulted to adjustments in order to fully implement the legislations. The implementation of K to 12 resulted to changes in the school calendar and displacement of teachers. However, the Calabarzon made the necessary adjustments and preparations in terms of student enrollment and engagements of displaced teachers. The success of K to 12 implementation in the region, so far, can be attributed to the efforts of DepEd Region IV-A and the creation of the Regional Adhoc Committee on K to 12. As of December 2016, there were 221,761 senior high school students enrolled in the region, majority of whom (61 percent) were enrolled in private schools.

Declining net enrollment rates and achievement rates. From 2012 to 2015, data showed fluctuating kindergarten enrollment. The increase in Kindergarten enrollment in SY 2012 to 2013 can also be attributed to institutionalization of RA 10157 which made Kindergarten education mandatory and compulsory in order to enter Grade 1. However, the region fell short of its target in kindergarten and elementary enrollment from 2014 to 2015 due to decrease in school-age population and change in school age requirement starting at 6 years old. Adjacency of some parts of Calabarzon particularly areas in Cavite, Laguna and Rizal to Metro Manila may cause a decrease in enrollment in the region. Learners from these places choose to study in big universities in National Capital Region, hence affecting enrollment in Calabarzon. Child labor and teenage

pregnancy are also reasons of decrease in secondary enrolment. However, with the intensification of alternative learning systems (ALS), DepEd Calabarzon is able to serve more than 50,000 learners ages 15 years old and up.

The decline in achievement rate in elementary and secondary education can be attributed to the unparalleled questions in the national achievement test with the teaching modules and lessons in secondary education. The decline can also be attributed to high student-to-teacher ratio, overcrowded classrooms, insufficient teachers training, and distractions due to technologies like mobile phones, tablets and social media, among others. The decline in achievement rate may further be attributed to the proximity of computer shops to schools which give access to computer games and other computer related activities, causing distractions among learners.

Increasing completion rate and cohort survival rate. Elementary and secondary completion rates surpassed the end of plan targets of 82.5 percent and 72.5 percent, respectively. Similarly, the cohort survival rate of 86.8 percent for elementary and 83.9 percent for secondary was also exceeded. The positive performance of the region in terms of completion and cohort survival rates can be attributed to the increase in government spending in education, stronger linkages and partnerships with various stakeholders, implementation of 4Ps and reforms in education.

Table 10.3 Basic Education Data, Calabarzon, 2012-2015 (in percent)

Indicator	2012 (BASELINE)	2013	2014	2015	2016 (END OF PLAN TARGET)
Net enrolment rate in kindergarten increased	65.25	91.30	88.30	79.90	Increasing
Net enrolment rate in elementary increased	88.50	92.37	91.91	72.88	100
Net enrolment rate in secondary increased	68.21	70.13	68.33	55.20	93.3
Completion rate in elementary increased	84.81	82.25	95.71	94.78	82.5
Completion rate in secondary increased	82.57	80.20	86.00	84.79	75.5
Cohort survival rate in elementary increased	86.45	84.79	96.63	91.82	86.8
Cohort survival rate in secondary increased	85.37	82.67	89.31	86.93	83.9
Achievement rate in elementary increased	65.96	59.82	57.89	-	75.0
Achievement rate in secondary increased	49.01	49.08	44.45	-	75

Note: - No data

Source: DepEd Region IV-A

Higher Education and Technical Vocational Education and Training

Growing HEI graduates and scholarship grants. HEI graduates increased from 50,329 in 2012 to 61,837 in 2015. It also exceeded its target by 6,177. The increase in HEI graduates can be attributed to competitive employment requirements demanded by industries and increase in number of scholarship grants. Scholarship grants provided increased from 8,791 in 2012 to 46,451 in 2014. However, a sharp decline of 35,431 from 2014 to 2015 can be attributed to the termination of the Priority Development Assistance Fund that is the main source .

Low civil service exam passing percentage. Despite the increasing number of graduates, the quality of education is being questioned due to low passing percentage professional and sub-professional civil examinations. At the national level, the

passing percentage for professional was 11.33 percent while the region's performance was at 14.62 percent (3,468 out of 23,719). Similarly, the region's performance to sub-professional exam was close at 12.75 percent with the national passing percentage of 11.09 percent. The challenge to provide adequate and quality education for all still remains.

Increasing HEI programs accredited. Accredited HEI programs in the region increased from 309 in 2012 to 469 in 2015. Likewise, the COE and COD programs also increased during the same time period (Table 10.4). The increase may be attributed to the fact that accreditation is mandated for SUCs as well as the increasing.

Encouraging TVET performance. TVET performance from 2012 to 2015 was encouraging. In terms of enrollees and graduates, both increased from 2012 to 2015 and even exceeded the end of plan

targets. The increase can be attributed to increase in TVET funds from the government and also to the increased interest of the youth in both rural and informal sectors in pursuing TVET as a replacement for a four-year course. Persons assessed and certified also surpassed its target from 2013 to 2015,

hence, TVET certification rate also showed positive performance during the period. The positive performance was due to public's growing appreciation in the value of certification to affirm skilled workers' competence in their respective fields and the increasing demand for highly skilled industry and service workers.

Table 10.4 HEI and TVET Data, Calabarzon, 2012-2015

Indicator	2012 (BASELINE)	2013	2014	2015	2016 (END OF PLAN TARGET)
Accredited HEI Programs	301	407	407	469	536
Center of Excellence (COE) Programs	11	11	11	14	11
Center of Development (COD) Programs	10	10	10	12	10
Higher education faculty with MA	5,774	6,554	6,554	2,211	7,586
Higher education faculty with PhD	1,375	1,713	1,713	1,958	1,983
Students with STUFAP	8,791	5,024	46,451	11,020	Increasing
Higher education graduates increased	50,329	52,660	60,660	61,873	55,660
Higher education institutions with accredited program increased	11	19	19	7	Increasing
TVET enrollees increased	200,398	248,086	288,629	324,132	286,035
TVET graduates increased	205,183	245,992	276,940	306,874	257,431
Persons Assessed	98,752	114,669	132,408	169,242	123,778
Persons Certified	80,682	99,903	118,075	150,247	105,211
Certification rate in TVET increased	82.00%	87.10%	93.20%	88.80%	85.0%

Source: TESDA Region IV-A and CHED Region IV-A

Labor Policies

Better employment and unemployment performance but underemployment worsened. Employment increased from 2012 to 2015 (Table 10.5) but fell short by 1.9 percent in achieving its end of plan target, whereas unemployment decreased from 8.9 in 2012 to 8.0 in 2015 surpassing the end of plan target by 0.6 percent. This performance means that there are effective interventions aimed at providing employment for all. The conduct of

various job fairs and career development seminars of LGUs, academe and industries helped attain this performance. However, there is still a need to provide more employment opportunities that will yield higher productivity. Despite better employment and unemployment rates, underemployment worsened from 17.9 percent in 2012 to as high as 18.7 percent in 2014. This means that interventions towards the attainment of job satisfaction and security need to be put in place. It is a general rule high unemployment is

associated to low underemployment and vice versa (PSA). Following these premise, the underemployment rate in the region is expected to increase, given that the employment situation has improved. While several interventions such as strengthening the network of career advocates in the region aimed at reducing job-skills mismatch are already in place, there is still a need to strengthen these programs to suitably address the growing underemployment in the region.

Labor force participation rate still at 65 percent. With the increasing population of Calabarzon from 12.61 million in 2010 to 14.41 million in 2015, labor force also increased with an annual average growth rate of 2.26 percent for the last five years. This performance can still be improved. The slow increase in labor force participation can be attributed to the difficulty of job hunters in finding a work that fits their knowledge and skills, and lack of interest in finding gainful employment especially for some of the children of overseas Filipinos. With this, much is to be done to encourage labor

force participation and attain gender parity in employment.

International and internal migration potentials and challenges recognized. Calabarzon is a net in-migration area and also among the top sending region of overseas Filipinos. Hence, the skills and competencies of in-migrants and return migrants were also considered. Migrant’s contribution in attaining the targets of higher productivity and in reducing unemployment and underemployment in the region needs to be maximized. However, appropriate socio-economic opportunities and social protection interventions must be provided. Among the challenges of internal migration include provision of housing and other basic needs, and employment. On the other hand, international migration needs investment facilitation mechanisms and one-stop migration shops. More importantly, both internal and international migrants need social protection services and reintegration mechanisms to maximize fully their potential.

Table 10.5 Employment, Unemployment, Underemployment and Labor Force Participation Rate, Calabarzon, 2012-2015

Indicator	2012 (BASELINE)	2013	2014	2015	2016 (END OF PLAN TARGET)
Employment rate	91.1	90.8	92.0	92.0	93.9 to 94.1
Unemployment rate	8.9	9.2	8.0	8.0	8.6 to 9.4
Underemployment rate	17.9	17.9	18.6	18.2	<17.5
Labor Force Participation Rate	64.4	64.5	65.5	64.6	Increasing

Source: PSA Region IV-A

Development Potential

Education. With the increased access in basic education and K to 12 facilities as

well as smooth implementation of basic education services, the region is expected to achieve quality basic education for all. The existence of State Universities and Colleges (SUCs) and other HEIs in the

region will also help DepEd in providing access to basic education through their laboratory schools. Also, majority of these institutions offer Grade 11, helping the implementation of the Senior High School Program. The presence of SUCs in each province in the region along with the University of the Philippines Los Baños, UP Open University for distance learning, and more than 200 other HEIs in the region showed that access to tertiary education and post graduate studies will not be a constraint. However, it will need appropriate interventions to realize fully the gains brought about by these institutions in developing quality human resource. The presence of the Philippine High School for the Arts in Los Baños indicates that arts and culture studies may also be pursued in the region towards attainment of strengthened opportunities and valuing potential of culture and arts for development.

Nutrition and health. With the full implementation of RPRH law, along with sustainable programs and projects on health and nutrition, and through the help of proactive private sectors, it is expected that disparities on health and nutrition

outcomes will be reduced. Furthermore, health and nutrition systems including data collection will also be improved.

Labor policies. With the foundations for the demographic dividend being laid down through education and health, the attainment of higher productivity and increased employment may be achieved. The current initiatives of the region on the developing mechanisms towards maximizing the gains of internal migration, international migration, the academe-industry linkages, and the promotion of youth entrepreneurship will also contribute to attainment regional goals and aspirations.

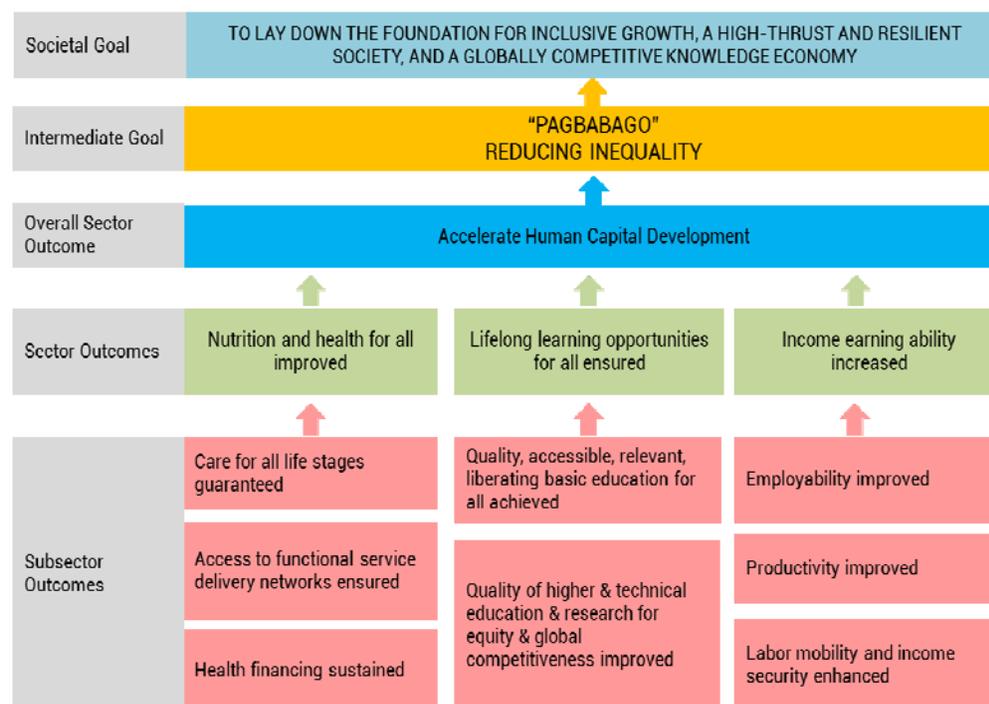
Equality in access to opportunities. Local and regional issues and concerns are being considered using the gender perspective to contribute to equal and equitable opportunity for all. The region, being committed to implement gender and development beyond compliance is most likely to attain human development outcomes.

Strategic Framework

The Regional Development Plan 2017-2022 aims to reduce inequalities in human development outcomes through: a) improved nutrition and health for all;

b) ensured lifelong learning opportunities for all; and c) increased income-earning ability of Filipinos.

Figure 10.1 Strategic Framework for Accelerating Human Capital Development



Targets

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

Table 10.6 Plan Targets to Improve Nutrition and Health

INDICATORS	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Life expectancy at Birth	-		
Male	69.48 (2010)	75	PSA; DOH
Female	75.62 (2010)	82	PSA;DOH
Total Fertility rate decreased	3.0 (2013)	2.8	PSA;DOH
Maternal mortality ratio (per 100,000 live births) decreased	63	70	DOH
Infant mortality rate (per 1,000 live births) decreased	9	15	DOH
Neonatal mortality rate (per 1,000 live births) decreased	6	10	DOH
Proportion of births attended by health professional increased	89%	99%	DOH
Proportion of births delivered in facility increased	84%	91%	DOH
Percent of 1 year old fully immunized children increased	59%	95%	DOH

INDICATORS	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Under five mortality rate (per 1,000 live births) decreased	13	22	DOH
Premature mortality attributed to cardiovascular disease, cancer, diabetes, and chronic respiratory diseases decreased	-	Decreasing	DOH
Malaria prevalence (per 100,000 population)decreased	0	0	DOH
Tuberculosis incidence per 100,000 population decreased	292	Decreasing	DOH
Number of new HIV infections (newly diagnosed cases/year) decreased	1,267	Decreasing	DOH
Health manpower to population ratio within the standard (MD)	1:68,345	1:20,000	DOH
Health manpower to population ratio within the standard (Nurses)	1:24,237	1:20,000	DOH
Health manpower to population ratio within the standard (Midwife)	1:10,008	1:5,000	DOH
Prevalence of underweight and severely underweight preschool children (0-71) month decreased	19.0	13.0	FNRI, NNC
Prevalence of stunting among children under 5 decreased (%)	27.7	21.7	FNRI, NNC
Proportion of HH with per capita intake below 100% dietary energy requirement decreased	29.3	23.3	FNRI, NNC
Regional Health Insurance Program coverage increased	100%	100%	PHIC
Modern Contraceptive Prevalence Rate increased (%)	32%	65%	DOH

Note: - No data

Source: PSA Region IV-A, DOH Region IV-A, NNC Region IV-A and FNRI

Table 10.7 Plan Targets to Ensure Lifelong Learning Opportunities for All, 2017-2022

INDICATORS	BASELINE		ANNUAL PLAN TARGETS					END OF PLAN TARGET		RESPONSIBLE AGENCY
	2016	2017	2018	2019	2020	2021	2022	2022		
Mean years of schooling increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing		
Functional Literacy Rate increased*	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	FLEMMS	
Net enrolment rate in kindergarten increased	82.77	85.64	88.51	91.38	94.25	97.13	100.00	100.00	DepEd	
Net enrolment rate in elementary increased	81.00	84.17	87.43	90.51	93.68	96.85	100.00	100.00	DepEd	
Net enrolment rate in junior high school increased	60.89	66.58	72.27	77.96	83.65	89.34	95.00	95.00	DepEd	
Completion rate in elementary increased	95.53	96.28	97.03	97.78	98.53	99.28	100.00	100.00	DepEd	
Completion rate in junior high school increased	86.53	88.27	90.01	91.75	93.49	95.23	97.00	97.00	DepEd	
Proportion of junior high school students performing at Moving towards mastery, closely approximating mastery and mastered increased**	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	NETRC	
a. Elementary										
b. Junior High School										
Proportion of Junior High School students at low mastery reduced from 14% to 10%	-	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	NETRC	
Elementary Drop-out rate decreased	4.31	3.93	3.54	3.16	2.77	2.39	2	2	DepEd	
Junior high school drop-out rate decreased	1:40	1:40	1:35	1:35	1:35	1:35	1:35	1:35	DepEd	
Percentage of students awarded scholarships, grants, and other financial assistance increased (%)	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED	
Percentage of tertiary graduates in science, engineering, manufacturing and construction increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED	
Percentage of ETEEAP graduates increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED	
Increased government expenditure for higher education research, development, and innovation (%)	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED, PSA	

INDICATORS	BASELINE 2016	ANNUAL PLAN TARGETS					END OF PLAN TARGET		RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021	2022		
Increased number of patents, licenses, and royalties issued to HEIs in the region	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Increased number of researchers and scientists	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Number of curricula and programs developed / revised based on multi-disciplinary platforms that foster 21st century competencies increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Increased number of HEIs engaged in local and global partnerships and collaborations	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Increased number of graduate education graduates (MA/PhD) engaged in original research of creative work	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Increased number of innovation hubs established within HEIs in the region	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	CHED
Certification rate of TVET graduates increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	TESDA

^aBaseline and target are only for not in education and employment (NEE). The indicator for not in education, employment and training (NEET) is for development in the Labor Force Survey.

^bWork is defined as permanent wage job.

^cBased on an ADB Study: Bird, K. 2012. Are Filipino Youth off to a Good Start? Youth Labor Market Experience in the Philippines. ADB: Manila

^{*}Indicators based on the SDGs

^{**}DOLE is not providing unemployment insurance, hence they cannot provide targets.

Table 10.8 Plan Targets to Increase Income Earning Abilities

INDICATORS	BASELINE	END OF PLAN TARGET	RESPONSIBLE AGENCY
	2015	2022	
Decreased percentage of adult NEET	Not available, for development	Decreasing	PSA
Decreased percentage of youth NEET ^a (%)	Not available, for development	Decreasing	PSA
Decreased duration of school-to-work ^b transition of college graduate	2 years (2008 ADB Household Survey ^c)	Decreasing	PSA, DOLE
Decreased duration of school-to-work ^b transition of high school graduate	4 years (2008 ADB Household Survey ^c)	Decreasing	PSA, DOLE
Decreased percentage of discouraged workers (%)	-	Decreasing	PSA, DOLE
Increased number of HE graduates engaged in job collaboration	-	Increasing	CHED
Percentage of female with advanced degrees employed increased (%)	58.9	Increasing	DOLE, PSA
Increased labor force participation rate of women (%)	42.0	Increasing	DOLE, PSA
Labor productivity in industry sector increased (%)	26.2	Increasing	DOLE, PSA
Labor productivity in service sector increased (%)	61.0	Increasing	DOLE, PSA
Percentage of unemployed covered by unemployment insurance increased	Not available, for development	Increasing	PHIC, DOLE

^aBaseline and target are only for not in education and employment (NEE). The indicator for not in education, employment and training (NEET) is for development in the Labor Force Survey.

^bWork is defined as permanent wage job.

^cBased on an ADB Study: Bird, K. 2012. *Are Filipino Youth off to a Good Start? Youth Labor Market Experience in the Philippines*. ADB: Manila

*Indicator based on the SDG

Strategies

To accelerate in human capital development, the following strategies will be considered: a) improvement of nutrition and health for all; b) ensure lifelong learning opportunities for all; and c) increase income earning ability. These strategies are aligned with the Philippine Development Plan 2017-2022 and the *AmBisyon Natin 2040* towards Matatag, Maginhawa at Panatag na Buhay.

Sector Outcome A: Nutrition and health for all improved

This sector outcome will be achieved through: a) guaranteed care for all life stages; b) ensured access to functional service delivery networks and sustained health financing. These will be supported by investments in nutrition and health towards maximizing the demographic dividend in 2040.

Sub-sector Outcome 1: Care for all life stages guaranteed

Improve nutrition and health. The region will focus its attention on the improvement of nutrition and health of its stakeholders through provision of timely and quality nutrition and health care interventions for all life stages. Specifically, this will be achieved through: a) improvement in prenatal care, safe delivery and new born and infant care through provision of facilities for new born screening; b) full implementation of expanded breast feeding act or Republic Act 10028; c) implementation of the first 1000 days of life program; d) full implementation of the Responsible Parenthood and Reproductive Health Act; e) sustain the interventions in addressing HIV/AIDs, TB, malaria and other emerging communicable diseases; f) strengthen interventions in addressing non-communicable diseases such as cancer, diabetes and heart diseases; g) addressing malnutrition in all its forms; and h) inclusion of health programs and projects in gender and development plans to address inequalities in nutrition and health.

Improve health-seeking behavior. Most of the nutrition and health concerns in the Region resulted from the limitations in the health-seeking behavior of the population. The Region will intensify its information education campaign (IEC) on the nutrition and health services available in the rural health units, local hospitals and private hospitals. IEC on no balance billing will also be promoted to encourage people to seek medical attention.

Attention to mental health and substance abuse. Special attention will be given in addressing mental health issues and substance abuse in line with the President's 0 to 10 socio-economic agenda. Health workers will be capacitated in providing prevention, protection and cure on mental illnesses. Mental health and substance abuse patients will be provided with treatment, rehabilitation, and psychosocial interventions while their families left behind will be provided with appropriate social safety nets.

Increase manpower to population ratio. Health professionals most often go out of the country for better income opportunities; this, therefore, limits the number of health manpower available in the country. To encourage them to stay, incentives and better employment opportunities must be in place. Competitive salary packages must be provided as well as better working environment. To do this, increase in government spending in health personnel and infrastructure must be provided. Support infrastructures like road networks and technology upgrading must also be in place.

Promote partnership, convergence and volunteerism. Forging of partnerships and convergence of initiatives with private sector and the academe in the delivery of health and nutrition services will help address health and nutrition concerns. The health sector needs to tap proactive private sectors, volunteers, and state universities and colleges in the region in advocating for and delivery of nutrition and health services.

Sub-sector Outcome 2.A: Access through functional Service Delivery Networks ensured

Expand access to nutrition and health services. Access to nutrition and health services will be expanded through increasing health manpower-to-population ratio, development of half-way health facilities especially for far flung areas and provision of support infrastructures like road networks and efficient transport systems. Redundant road networks and resilient facilities will be beneficial during calamities and disasters. Nutrition and health caravans will also be provided to rural areas and island municipalities to bring the services closer to the people. Information systems must also be in place.

Upgrade health facilities. With the increasing population (natural and immigration) resulting to high density status of the Region, there is a need to upgrade most health facilities including rural health units, local, provincial and Regional hospitals and private health providers. Local hospitals in the Region clamor for upgrading of facilities to achieve level 2 status. The clamor resulted from the influx of patients and the limitations of facilities in terms of bed to population ratio and lack of necessary equipment. The upgrading of health facilities will also consider gender sensitive and mother-baby friendly facilities.

Expand health insurance coverage and social protection. The Region will expand its initiatives in terms of health insurance coverage to achieve 100% health insurance coverage from 2017 to 2022. To do this, there will be proactive efforts on: a)

advocacy and registration to health insurance; b) full implementation of No Balance Billing; and c) implementation of the social protection framework (see Chapter 11).

Sector Outcome B: Lifelong learning opportunities for all ensured

Calabarzon will ensure lifelong learning opportunities for all through: a) achieving quality, accessible, relevant, and liberating basic education for all; and b) improving the quality of higher and technical education and research for equity and global competitiveness.

Sub-sector Outcome B.1: Quality, accessible, relevant and liberating basic education for all achieved

Implement education reforms. To fully implement education reforms in the Region, Calabarzon will push for the institutionalization of the voucher program and enhancement of K to 12 modules and K to 12 strands into a more relevant, gender-responsive curriculum. The Region will also strive to make K to 12 strands more available in rural areas along with the provision of sufficient number of special education and early childhood care teachers and facilities. Policy on regulating the use of technology in schools will also be prioritized while integration of arts and culture will be promoted.

Enhance teacher competencies. Since basic education is fundamental towards accelerating human capital development, teacher competencies must be at par with the ASEAN and global standards. This can be achieved through the continuous

capability development for teachers especially for science, mathematics and technology subjects, increasing number of teachers with masteral and doctorate degrees and more learning sessions like workshops, trainings and learning visits.

Expand alternative learning systems. Expanding ALS would reach everyone including children in conflict with the law and child laborers that have no access to formal education but wanted to acquire basic and lifelong learning. This will be achieved through increased government spending on ALS, increase in number of ALS educators that would reach out to inaccessible areas and encourage community participation in education.

Improve education facilities. Support services and facilities are important in the attainment of quality, accessible, relevant, and liberating basic education for all. Improvement in education facilities is not only limited to provision of more disaster resilient school buildings but also on the availability of good soft infrastructure like internet connection and telecommunication. With the thrust of the government to improve mechanisms on mapping, profiling and tracking of learners, school-aged children and youth for better and evidenced-based decision-making, the role of good soft infrastructure is a must.

Sub-sector OutcomeB.2: Quality of higher and technical education and research for equity and global competitiveness improved

Expand access to higher education. Access to higher education will be expanded

maybe not in terms of increase in number of higher education institutions available for each locality but more of collaboration and complementation of SUCs and private HEIs in the Region. Distance learning mechanisms will also be upgraded and promoted for those have no capacity to physically be present in schools like working students and those with full time employment. The Region will also push for the full implementation of the Unified Financial Assistance System for Tertiary Education (UniFAST) Act (RA 10687) instead of the Free Higher Education for All Act. Implementation of the UniFAST law may address the Region's concern low repayment of student loans and inefficient targeting of beneficiaries. The Region's strategy is more on the targeted interventions for the poor and those without access to reduce disparity and promote equity in education.

Increase competitiveness. Quality of education especially on science, technology, engineering, agri-fisheries and mathematics will be prioritized while promoting excellence among HEIs along these core courses. Measures of competencies will be established, including an increase in research grants, patents, publications and graduate employment rate, among others. ASEAN and global competitiveness will be achieved through the full implementation of the Philippines Qualifications Framework (PQF) and benchmarking with ASEAN and global qualifications. The Region will also prioritize increasing and sustaining the number of accredited HEI programs, number of COE, and COD programs. Teacher's competencies will be improved through increase in number of HEI faculty

with MA and PhD, provision of scholarship grants and more opportunities to pursue post graduate education, provision of competitive salary and incentives to prevent faculty to seek better opportunities outside the country, enforcement of vertical alignment and improve hiring requirements for HEI faculties through PQF. Continued enhancement of the higher education programs and implementation of other landmark legislations such as: Fast-Tracked Science and Technology Scholarship Act of 2013 (RA 10612), Ladderized Education Act (RA 10647), Iskolar ng Bayan Act (RA 10648) and Open Distance Learning Act (RA 10650) will also increase higher education competitiveness.

Promote culture of research and innovation. Higher education institutions in the region will aim to promote the culture of research and innovation to increase value adding and engagement in knowledge-based economy. To promote culture and innovation, the region will improve the research capabilities of HEI faculties and graduate students. There was a standing recommendation to require master and doctorate degree earners to have internationally-peered journals or publications as prerequisite to graduation. To fully realize this goal, the needed research facilities, technologies, and equipment must be provided. Multi-stakeholder and collaborative researches will also be promoted along with the strengthening of academe and industry linkages.

Strengthen academe-industry linkages. With the ground works for academe and industry linkages and collaboration set, the region will go its realization through industry engagement in the provision of training and immersion facilities as well as employment opportunities while the government will provide more scholarship grants especially in courses demanded by the industries and by the agriculture sector. Dual training system will also be encouraged between the academe and the industry to promote ease of school to work transition of graduates. This result can also be achieved through the implementation and monitoring of the AIL manifesto and call to action generated during the 1st Calabarzon AIL Summit.

Provide quality and accessible TVET programs. The Region will provide access to quality and relevant TVET opportunities through scholarships and partnerships with private tech-voc schools and other institutions offering TVET programs. The quality of TVET program will be measured through increase in number of persons assessed and certified and increased in certification rate of TVET programs. Industry demanded skills will be prioritized to achieve higher employability of TVET graduates and provide local employment opportunities rather than employment facilitation outside the country.

Industry and community-driven approach TVET. The TVET program in the Region will prioritize industry demanded programs that are area-specific, flexible, holistic, and product and service oriented. It will target the poor and vulnerable especially those in the informal sector.

The community, especially the returning migrants who have acquired skills and technical competence abroad, will be allowed to participate in education and training.

Sector Outcome C: Income-earning ability increased

The sectoral outcome to increase income earning ability of the region's labor force will be achieved through improvement in employability and labor productivity as well as enhancement of labor mobility and income security. Emphasis will also be given to increasing income earning ability of women.

Sub-sector outcome C.1: Employability improved

Skills upgrading and retooling. The ensure employability of labor force, the Region will focus on skills upgrading and retooling both for TVET and HEI graduates through continuing education and training programs. Emphasis will be given to enhancement of competencies on core courses, industry demanded skills, entrepreneurship skills, and language proficiency. This will also address the long standing concern on job-skills mismatch.

Strengthen employment facilitation services. New entrants to labor market will be assisted through employment facilitation services such as career orientations, coaching and job fairs. The role of HEIs is important in ensuring ease of school to work transition of its graduates while the role of LGUs through their public employment service office is crucial to provide employment opportunities and

labor market information. Industry roadmaps and skills mapping will also help in strengthen employment facilitation services.

Decrease gender disparity in labor market. The disparity between men and women in employment still exists. This concern can be addressed through provision of gender-responsive work place and implementation related laws, such as the RPRH law, Expanded Breastfeeding act and the Magna Carta of Women. Encouraging more entrepreneurial and innovative activities will also decrease gender disparity in labor market especially for women. This will also create more employment opportunities in the long run.

Sub-sector Outcome C.2: Productivity improved

Strengthen the implementation of the two-tiered wage system. The two-tiered wage system will be continuously implemented and enhanced through constant dialogue of the Regional Tripartite Wage Productivity Board.

Provide humane work environment. Safety, security and workplace harmony will be promoted to ensure human work environment in the Region. Work place emergency plans will be established and improvements in labor-management relations will be promoted. Policies that will help contribute to the attainment of higher productivity in employment especially of the vulnerable sector will be implemented. Some of these policies are: Domestic Workers Act (RA 10361), Expanded Anti-Trafficking in Persons Act (RA 10364), RA 10151 or An Act Allowing

the Employment of Night Workers and the No Endo policy.

Sub-sector Outcome C.3: Labor mobility and income security enhanced

Provide income support and emergency employment. Income support and emergency employment facilitation will be strengthened through the initiatives of department of Agriculture, Department of Social Welfare and Development and Department of Labor and Employment

especially after calamities and disasters. Income security will be enhanced through better social protection and crop insurance, among others. More social protection services are identified in Chapter 11.

Enhance labor mobility. Labor mobility will be enhanced through increasing competitiveness of the labor force as discussed in subsector outcome B.2: increase competitiveness and C.1: skills upgrading and retooling.

Major Programs and Projects

The region's priority programs, projects, and activities to achieve the sectoral and societal outcomes in accelerating human capital development will be implemented through volunteerism, convergence, and multi-stakeholder partnership approach. The priority interventions of the region are the following:

Sector Outcome A: Nutrition and health for all improved

- Infant and new born care program
- Maternal health Program
- Mental Health Program
- Existing and emerging communicable diseases program
- 1st 1000 Days of Life Program
- Counseling, referral and rehabilitation for substance abuse patients
- Food sustainability projects
- Community involvement and sports development
- Full implementation of the RPRH Law

• Full implementation of No Balance Billing
Sector Outcome B: Lifelong learning opportunities for all ensured

- Provision of more scholarship programs
- Institutionalization of Senior High School Voucher Program
- Teacher's incentive Program
- Skills mapping
- Development of industry roadmaps
- K to 12 module development
- Full implementation of Philippine Qualifications Framework
- Continuing capability development for teachers

Sector Outcome C: Income earning ability increased:

- Career guidance and counseling
- Job fairs and local recruitment activities

- Labor education for graduating students
- Youth entrepreneurship
- Continuing education
- Continuous implementation of the two-tier wage system
- Investment promotions

Legislative Agenda

To complement and support actions of the Executive branch, the following legislation will be required.

Table 10.9 Legislative Agenda to Accelerate Human Capital Development

LEGISLATIVE AGENDA	RATIONALE
Sector Outcome A: Nutrition and health for all improved	
Local Population Development Act**	This will provide for the establishment and operation of population offices to ensure the effective implementation of population management strategies and measures at the local level.
Prevention of Adolescent Pregnancy Act**	This act will facilitate the development of a National Program of Action and Investment Plan for the prevention of teenage pregnancy. The program of action will serve as the national framework for inter-agency and inter-sectoral collaboration at all levels to address the various health, cultural, socio-economic, and institutional determinants of teenage pregnancy.
National Mental Health Care Delivery System**	The bill aims to establish the legal framework to provide care and services to those with mental illness. It will consolidate mental health provisions in existing laws, namely: the Revised Penal Code, the Magna Carta for Disabled Persons, and the Family Code.
Amendment of the law on the Barangay Nutrition Scholar (BNS) Program**	This is to upgrade incentives and benefits, and ensure security of tenure of BNS. This is essential in the provision of continuous frontline nutrition services to the community. This law would ensure that trained and experienced BNS are carried over by succeeding political administrations.
Sector Outcome B: Lifelong learning opportunities for all ensured	
Philippine Qualifications Framework Bill**	The bill envisions a quality-assured national system for the development, recognition, and award of qualifications based on the standards of knowledge, skills, and attitude acquired by learners and workers in the country. It aims to institutionalize the PQF to encourage lifelong learning of individuals, provide employers specific training standards and qualifications that are aligned to industry standards, ensure the training and educational institutions adhere to specific standards and are accountable for achieving the same, and provide the government with common taxonomy and typology of qualifications as bases for granting approvals to stakeholders.
Amendment to the Dual Training System Act of 1994**	There is a need to review RA 7686 in order to entice more companies to engage in DTS. DTS provision on the age of trainees and night shift also needs to be revisited to promote more academe-industry partnerships.
Regulatory policy on the use of technology in schools*	This policy aims to enhance attention of students to lessons and increase their learning abilities.
Harmonization of the definition of graduate tracer study of PSA and CHED*	This policy will harmonize and standardize the existing definitions of graduate tracer study.
Sector Outcome C: Income earning ability increased	
100-Day Maternity Leave Act**	This will institutionalize a mechanism to expand the maternity leave period of women workers. This will provide

LEGISLATIVE AGENDA	RATIONALE
No Endo" policy*	ample time for mothers to regain their health and overall wellness, as well as assume maternal roles before resuming paid work. (An extended paternity leave is also proposed to allow fathers to participate in child-rearing.) This requires further study but the policy will improve job security.
Productivity Incentive Bill**	In order to encourage enterprises to adopt productivity improvement and gain-sharing schemes, RA 6971 or the Productivity Incentives Act, should be amended to liberalize its restrictive provisions. These include the basis for computing baseline productivity data, the manner and frequency of distributing productivity-based bonuses, and the sharing scheme. Workers and enterprises must be allowed to design their own productivity incentive programs depending on the growth requirements of the enterprise.
Unemployment Insurance**	This seeks to address income insecurity of displaced workers. However, at present, there is no unemployment insurance provided to private sector employees. For a more efficient system that provides incentive to reenter into the labor market, unemployment insurance must be linked to active labor market programs, such as employment facilitation, skills training, and livelihood. The rationale for government intervention must be to facilitate re-employment of the unemployed, upgrade skills for better employability, provide entrepreneurial opportunities, and protect the unemployed and their families against temporary loss of employment and income.

Notes:

*Legislative agenda identified during the Regional consultations

**Legislative agenda identified during the Regional consultations parallel with the legislative agenda at the national level

11 Reducing Vulnerability of Individuals and Families

Reducing Vulnerability of Individuals and Families

Vulnerability, as defined by International Federation of Red Cross and Red Crescent Societies is the “diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard”. The level of vulnerability would vary depending on an individual's social group, gender, age, among others. In the Philippines, the most vulnerable groups are the children, women, persons with disability, Indigenous Peoples, older persons, overseas Filipinos and their families, and workers in the informal and contractual workers in the formal sector.

This chapter discusses the situation of the most vulnerable groups in the region and the government's performance in reducing the risk of these groups. It also includes strategies to attain a universal and transformative social protection program for all. This chapter also covers the updates on the asset reform in the region.

Assessment and Challenges

Since 2009, the region's poverty incidence has been declining from 11.9 percent to an estimated 9.1 percent in 2015. Next to NCR which has a poverty incidence of 3.9 percent, it is the lowest among the regions and below the national level of 21.6 percent. The decrease in poverty incidence may be attributed to the economic development of the region and the successful implementation of social protection programs such as the *Pantawid Pamilyang Pilipino Program* (4Ps) that benefitted 328,256 poor households in the region, the Social Pension Program which covered 72,285 indigent senior citizen, and the Accelerated and Sustainable Anti-

Poverty Program (ASAPP) which was able to provide PhP459,499,483.70 worth of interventions to Quezon Province.

Other social protection programs implemented to help the vulnerable groups were the assistance to child laborers, the bridging employment assistance for youths, the emergency employment and income augmentation for vulnerable workers, and the provision of assistance to OFWs and families. These projects successfully met or even exceeded their targets.

The only targets not met were the number of poor households covered by 4Ps in 2014 and the number of poor senior citizens covered by social pension in 2013. The failure to meet targets was due to the limited slots, delays in beneficiary assessment, and the violation of some beneficiaries of program conditions.

Despite the region's lower poverty incidence, the region still has to improve existing programs or develop other interventions to lessen poverty. Quezon Province, in particular, requires more assistance, compared to other provinces, as it has the highest poverty incidence in the Region with an estimated 22.7 percent which slightly higher than the national level.

In order to lessen poverty, implementation of appropriate social protection programs to ease the vulnerabilities of population to economic risks, natural hazards and human-induced shock, and governance and political risks, is needed.

Individual's vulnerabilities vary depending on economic status, age and gender. Thus it is important to understand the risks factors that may affect each group of individuals.

Inherent Vulnerabilities

The children are one of the most vulnerable groups especially during the first 1,000 days wherein brain development is critical and would lay the foundation of future health. The children are also vulnerable to violence which refers to "all forms of physical or mental violence, injury and abuse, neglect or negligent

treatment, maltreatment or exploitation, including sexual abuse" and economic risks.

The older persons, who are also considered as vulnerable group due to their mental and physical health as well as their economic status, comprised 6.7 percent of the total population of the region in 2015 and are expected to increase due to rapidly ageing population.

Differently abled persons are also vulnerable to many risks because of attitudinal, physical and financial barriers.

The Indigenous Peoples (IPs) who are mostly residing in geographically isolated areas (GIDAs) in the region have difficulty accessing the basic services such as health and livelihood services. Only few IPs have college education; nonetheless, the RLAs offer programs/scholarship for them. One of the identified strategies is to map all programs for the IPs, which upon submission to National Commission on Indigenous Peoples (NCIP), will be distributed to the IPs.

Economic Risks

Workers in the informal sector (WIS) and the contractual or job orders (JOs) in the formal economy are vulnerable to economic risks because of the uncertainty of sources of income or livelihood. Generally, WIS and JOs are not covered by social security services but are still provided special assistance such as job facilitation and emergency employment. Overseas Filipinos and their families despite having high income can also be at risks to economic risks due to the

structural changes and economic crises in foreign countries where they are working.

Governance and Political Risks

There are also individuals and families at risks because of internal conflicts in some GIDAs in the region which disrupts economic and livelihood activities in the affected areas. At present, there are 12 local government units that are identified as conflict prone areas. If not addressed sufficiently, the occurrence of internal conflicts can become cyclical as it has been observed that conflict prone areas also have high poverty incidence.

Natural Hazards

Natural hazards are occurring more frequently and with greater intensity. In recent years, Calabarzon was affected by strong tropical storms and typhoons such as “Glenda”, “Nona” and “Nina” that caused damages to infrastructures and livelihood, and casualties. Typhoon Glenda in 2014 recorded an estimated damages and losses amounting to P 8.88 billion and 75 casualties^v. 2015, Typhoon Nona enhanced by Northeast Monsoon recorded estimated damages and losses amounting to P 218.99 million. In 2016, Typhoon Nina also hit the region. Natural hazards are unexpected shocks that can further set back already vulnerable and poor population and those that are near the poverty line. The case is true for Calabarzon wherein many of the tropical storms and typhoons hit the Provinces of Quezon and Batangas which have poverty incidence higher than the national level.

Thus, the timely and adequate delivery of relief and other immediate and short term rehabilitation and recovery interventions are essential to cushion the impact of natural hazards.

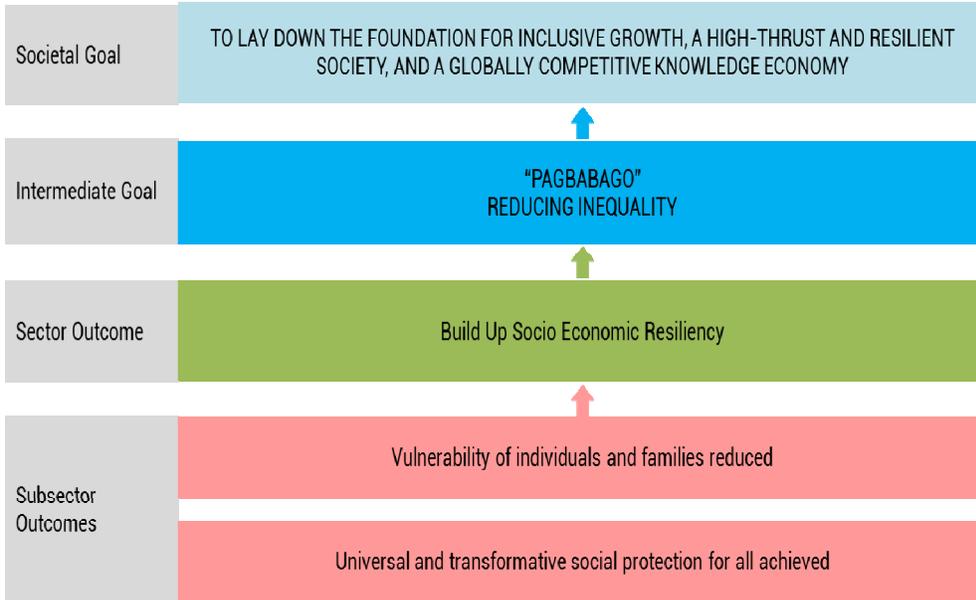
The Region also needs to address the other development challenges such as the limited availability of programs for informal sector (i.e. kasambahay), women in micro-entrepreneurs and home-based livelihood, victims of violence against women and trafficking, and drug surrenderers, among others. The other challenges identified were the limited participation and representation of vulnerable sectors in development activities, and inadequate monitoring and evaluation mechanisms for social protection programs.

In terms of agrarian reform, the region showed progress but not in the desired pace. Institutional barriers were identified as hindrance to the timely distribution of land under the Comprehensive Agrarian Reform Program. Among the challenges in asset reform are the slow process of plan approval and of land valuation and the tedious process of title acquisition due to poor coordination among agencies working on land reform. The automation process was somehow perceived to have complicated the process.

Strategic Framework

The RDP 2017-2022 aims to reduce inequality by reducing vulnerability of individuals and families in all kinds of risks through the implementation of a universal and transformative social protection program for all.

Figure 11.1 Strategic Framework for Reducing Vulnerability of Individual and Families



Targets

Table 11.1 Plan Targets to Reduce Vulnerability of Individual and Families

INDICATORS	BASELINE 2016	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
<i>Individual Risk</i>			
Percentage of Population covered by Philhealth Insurance	74% ¹	100%	PhilHealth
Number of poor senior citizens covered by social pension (Senior Citizen's Law) increased	85,639	Increasing	DSWD
Number of LGUs in compliance to 1% allocation for PWDs /Senior Citizens increased	^a PWD 13 LGUs SC _ 147 LGUs	Increasing	LGUs, DSWD
<i>Economic Risks</i>			
Percentage of SSS regular members over the total number of workers employed by the private sector	-	100%	SSS
Percentage of employed in the government covered by GSIS	Laguna - 37,888	100%	GSIS
Percentage of OFWs covered by social security increased	OWWA _ 100%	Increasing	OWWA, POEA, SSS

INDICATORS	BASELINE 2016	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Number of children aged 15-17 years engaged in child labor, reduced	^b 13,926	30% reduction from latest data	DSWD, DOLE
Number of poor HHs covered by conditional cash transfer (CCT) increased	316,164	ⁱ Decreasing	DSWD
Number of Out of School Youth provided with assistance increased	^c 35,684	Increasing	
Number of women assisted in micro-entrepreneurs and home-based livelihood increased	^d 16,277	Increasing	
Vulnerable workers facilitated enrolment to various social protection scheme increased	^e 35,852 (2016)	Increasing	DSWD, DOLE
Workers in the informal sector provided emergency employment and/or income augmentation thru livelihood assistance increased	^f 89,294	Increasing	DOLE, DSWD, LGUs
Number of fisherfolks assisted through fishery livelihood programs increased	2,803	Increasing	BFAR
<i>Environmental and Natural Risks</i>			
Proportion of families affected by natural and human-induced calamities provided with relief assistance increased (%)	^g 64,386	Increasing	DSWD
Number of deaths due to disaster per 100,000 population decreased*	-	Decreasing	OCD/ RDRRMC
Number of missing persons due to disaster per 100,000 population decreased*	-	Decreasing	OCD/ RDRRMC
Emergency shelter assistance provided increased	^h 1,251 units/ beneficiaries	Increasing	DSWD

Note:

*SDG Indicator

^a Source: 2016 Sectoral Focal Person (PWD & SC) and Social Pension for Indigent Senior Citizen

^b Source: Listahan 2nd Round of Assessment (CY 2015-2016)

^c Source: Pantawid Pamilya, Sectors (Youth & Children) and Centers (BT, RHWG and NTSB)

^d Revised based on updated report of SLP

^e Source: International Social Welfare Services for Filipino Nationals, SLP, KC-NCDDP

^f Source: Disaster Management Unit (DMU)- Cash/ Food for Work and SLP's Micro-Enterprise Development

^g Source: Disaster Management Unit (DMU)- Cash/ Food for Work

^h Source: Core Shelter Assistance Program (CSAP)

ⁱ Decreasing since the number of HHs covered by the program should have improved their level of well-being by 2022

Strategies

In order to reduce the vulnerability of individuals and families, the region should deliver interventions that could build the capacities of the people to be resilient to risks by directly addressing the root causes of the various types of risks.

The region has identified strategies that would focus on improving the implementation of social protection program as follows:

- *Strengthen convergence mechanism for poverty alleviation.* In 2016, the Regional Development Council through RDC Resolution No. IV-A-75 identified 35 local government units as convergence areas for poverty alleviation. These areas have poverty incidence higher than the national level. The Regional Technical Working Group for Poverty Alleviation should regularly monitor the progress of the identified programs for the convergence areas.
- *Strict implementation of the programs for children.* The region through the Regional Sub-Committee for the Welfare of Children should strictly monitor the implementation of programs significant to child's survival, development, protection and participation to help eliminate all form of abuse i.e. child labourer and trafficking.
- *Strict implementation of laws related to persons with disability.* The region has to ensure that all agencies and LGUs implement policies for PWDs i.e. allocation of budget, construction of PWD-friendly facilities, addition of employment opportunities and other benefits among others.
- *Increase the number of social safeguard programs.* Including the Comprehensive Elderly Care Program, Comprehensive PWD Welfare Program, Comprehensive Child Protection Program and Occupational Safety and Health Program as social protection program would help increase the vulnerable sector covered by current social protection program.
- *Intensify program for OFs and their families.* The RDC through the Committee on Migration and Development and its Sub-Committee on International Migration would continue to conduct programs and recommend policies, to minimize the social risks of OFs and their families and to maximize the economic benefits, including social security benefits in the standard employment contract, extension of social safety nets, trainings on skills upgrading, and reintegration program among others.
- *Adopt the implementation strategies in the Social Protection Operational Framework and Strategy.* The Social Protection Operational Framework and Strategy includes 1) scaling up of community driven development;

2) convergence in the delivery of core responses; 3) building adaptive capacities at all levels of implementation and 4) institutionalized monitoring and evaluation system.

- *Adopt a convergence approach in agrarian reform.* The creation of the technical working group to focus on developing policy and institutional mechanism oversight the implementation of land reform is recommended.

Major Programs and Projects

- Comprehensive Elderly Care Program
- Comprehensive PWD Welfare Program
- Comprehensive Child Protection Program
- Creation of TWG to *converge land reform efforts*

Legislative Agenda

- Amend Republic Act 8972 on Benefits and Privileges to Solo Parents and their children to increase benefit package
- Increase social pension for indigent senior citizen. The RDC through RDC Resolution No. IV-A-165-2016 endorsed the recommendation to increase the social pension to PhP 1000 from PhP 500.
- Enactment of Disability Support Trust Fund for rehabilitation services and capacitate LGUs in building their own trust funds
- Amend accessibility law to include ICT
- Enactment of Evacuation Center Act that should have mandatory Women-Child and Elderly Friendly Spaces
- Policy or ordinance on LGUs' Comprehensive Social Protection Program

^v Partial data based on Rehabilitation and Recovery Plan (RRP) of Typhoon Glenda Affected Areas

12 Building Safe and Secure Communities

Building Safe and Secure Communities

According to Maslow's Hierarchy of Needs, shelter is one of the physiological needs that humans should satisfy in order to survive and to attain self-actualization - a time when a person can do what they are born to do. In fact, in the national survey for *Ambisyon Natin 2040*, shelter is one of the identified aspirations of the Filipino. Thus, the region, through the Regional Development Plan aims to have safer and more secure housing projects in the region to cater the existing needs of the population as well as the additional population brought about by in-migration.

This chapter discusses the existing situation of programs and projects related to housing in the region as well as identified strategies to address the challenges experienced during the previous years.

Assessment and Challenges

The number of housing target met and the end-user financing to housing target met in the region have significantly increased with the sufficient funds and budget sharing among key shelter agencies (KSAs) and government finance institutions, and the improved financing terms. The decrease in interest rate from 16 percent in 2008 to 5.5 percent in 2015 encouraged more members to avail of housing programs. This was further boosted by improved processes, increased marketing, assistance of accredited developers and increased capacity of citizens to avail housing loans.

Aside from the housing target met, the region also achieved its targets on the updated Comprehensive Land Use Plan (CLUP) and on the LGUs assisted in the

preparation of the Local Shelter Plan. While the target updated CLUPs was consistently met, some were not updated in a participatory manner, and thus, the problems on the continuity of CLUPs during changes in administration remain. On the assistance in the preparation of LSPs, KSAs believe that the regional target should go beyond LSP assistance.

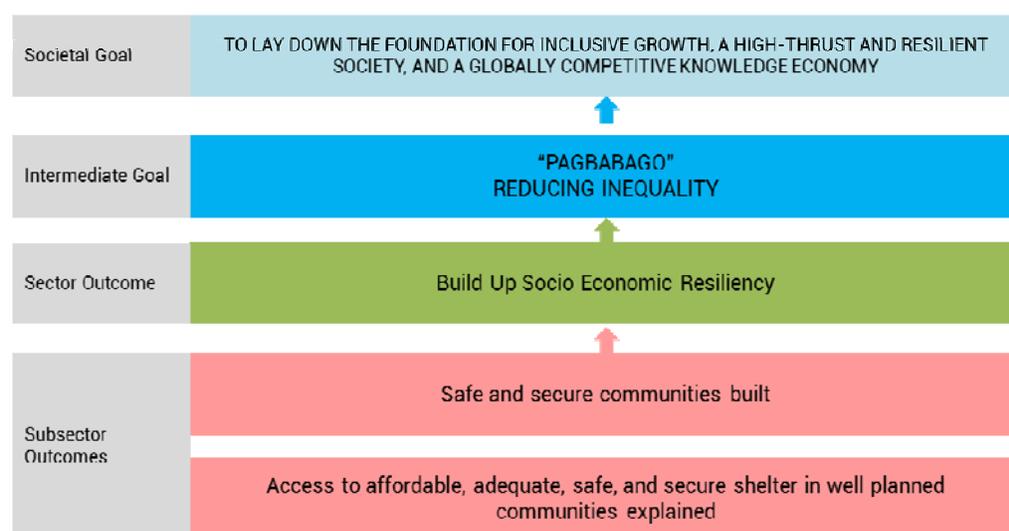
On the other hand, the region's performance in socialized housing has declined because the financial barriers discouraged informal settler families (ISF) in availing of the program. This may also be attributed to inadequate post-relocation services including livelihood and utilities, which may have been better prepared through an inter-agency approach.

Despite the achievement of the overall housing target, questions on whether or not the housing program responds to actual housing backlog were raised.

Currently, assistance under socialized housing is demand-driven or determined by application from communities rather than needs-based.

Strategic Framework

Figure 12.1 Strategic Framework for Building Safe and Secure Communities



Targets

Table 12.1 Plan Targets on Direct Housing Assistance

INDICATORS	BASELINE 2015/2016	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
I. Direct Housing Provision			
A. NHA Housing Production	-	Annual targets set annually achieved	NHA
B. Community Driven Housing Program	4,627 (2015)	Annual targets set annually achieved	SHFC
C. Retail and Development Financing	-	Annual targets set annually achieved	HDMF/Pag-ibig
1. End-User Financing	8,219 (2015)		
a. Socialized Housing	-	Annual targets set annually achieved	
b. Low Cost Housing	-		
c. Medium Cost	-		
d. Open Market	-		
Total Direct Housing Provision	12,846 (2015)	Annual targets set annually achieved	

Table 12.2 Plan Targets on Indirect Housing Assistance

INDICATORS	BASELINE 2015/2016	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
II. Indirect Housing Provision			
A. New Guaranty Enrolments			
1. Socialized Housing			
2. Low Cost Housing	-	to be determined	HGC
3. Medium Cost Housing			
4. Open Housing			
B. License to Sell (issued)	216 subdivisions	to be determined	HLURB
C. LGUs provided CLUP assistance	33 LGUs	to be determined	HLURB
D. Housing Loan Receivable Purchase Program (HLRPP)	-	to be determined	NHMFC
Total Indirect Housing Assistance*	-	to be determined	

*Does not include item C (LGUs provided CLUP assistance) because the total includes only the households indirectly assisted

Table 12.3 Plan Targets to Build Safe and Secure Communities

INDICATORS	BASELINE 2016	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Access to affordable, adequate, safe, and secure shelter in well-planned communities expanded			
Proportion of urban population living in slums, informal settlements or inadequate housing decreased (%)*	ISF _ 320,335	20 (national)	HUDCC
Proportion of socialized housing target to housing needs improved (%)		85 (national)	HUDCC

*SDG Indicator

Strategies and Legislative Agenda

Despite the improvement in the housing sector, there are still gaps that have to be addressed through:

- regular monitoring and tracking of LSPs approval and implementation including its integration in other plans to facilitate easier compliance among LGUs;
- conduct of research on the effectiveness of LSPs;
- conduct of land inventory and ISF mapping through the Land Registration Systems Inc. and the National Household Targeting System, to estimate actual needs;

- pursue legislative agenda on the creation of a department on housing and urban development;
- formulate policy on enhancing the processes of the Community Mortgage Program;
- encourage LGUs to be the originator and mobilizer of community mortgage program through establishment of permanent item for housing coordinator;
- adopt of policy requiring HUDCC-approved resettlement action plan prior to issuance of infrastructure project ICC;
- conduct research on assessment of resettlement programs;
- CMP and socialized housing programs;
- conduct of environmental and social impact assessment along with a baseline study on skills set inventory of relocatees;
- ensure that appropriate inter-agency post-relocation services are provided.

Major Programs and Projects

- Monitoring of LSP Compliance
- Baseline study on skills set inventory of relocatees
- Land inventory and ISF mapping

PART IV

INCREASING GROWTH POTENTIAL ("PATULOY NA PAG-UNLAD")



13

Reaching for the
Demographic
Dividend

Reaching for the Demographic Dividend

Demographic dividend is the “economic growth potential that can result from shifts in a population’s age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)”.

Assessment and Challenges

Among all the regions in the country, Calabarzon is expected to benefit the most out of the demographic dividend given its big population. Its share in the working age population to the country’s total is around 14 percent. The growth rate of the working age population has been growing steadily since 1970 outpacing the growth of the dependent population and the total population. With an average growth rate of 3.9

percent, the working age population is expected to double in 2033. The steady growth of the working age population is attributed to population momentum and in-migration of the younger population to the region who are mostly students and jobseekers. The region also attracts young couples seeking to establish residence given the varied housing options being offered by the housing sector.

Table 13.1 Population Size and Population Growth Rate by Selected Age Group

	POPULATION ^{1/}				GROWTH RATE ^{2/}				
	1980	1990	2000	2010	1970-80	1980-90	1990-2000	2000-2010	AVE.
0-14 years old	1,894,544	2,440,012	3,376,000	4,049,014	2.57	2.56	3.30	1.83	2.57
65 & over	176,302	217,592	328,800	480,366	2.13	2.13	4.21	3.86	3.08
15-64 years old	2,532,589	3,681,999	5,718,100	8,053,629	3.82	3.81	4.50	3.48	3.90
CALABARZON	4,603,435	6,349,452	9,320,629	12,609,803	3.21	3.27	3.91	3.07	3.37

Source: ^{1/}NSO; ^{2/} Computed

With the rapid growth of the working age population, the proportion of dependents declined. Young age dependency significantly dropped from 75 dependents per 100 working persons in 1970 to 50 in 2010. The decline in the young age dependency burden indicates

that the number of children ever born has started to drop. So far, there is no change in the old age dependency signifying that there is not much change in the life expectancy of the people in the region.

Table 13.2 Age Dependency Ratio (per 100 persons)

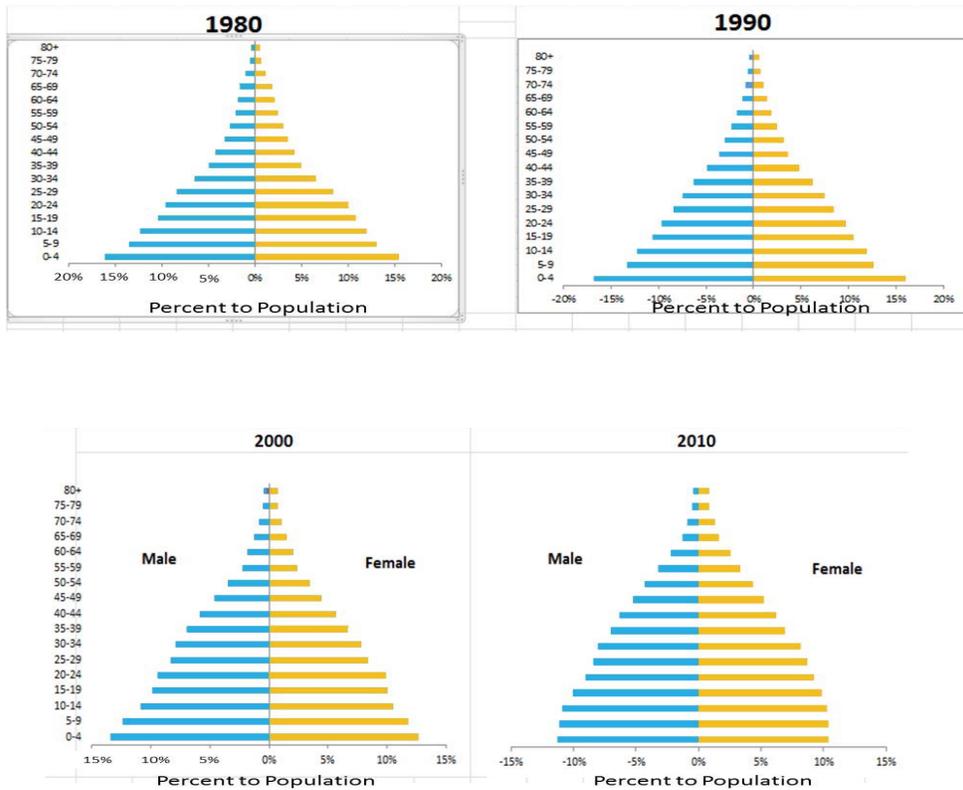
	1980	1990	2000	2010
Young Age Dependency Ratio	75	66	59	50
Old Age Dependency Ratio	7	6	6	6
Total Dependency Ratio	82	72	65	56

Source of basic data: PSA

As indicated in the population pyramid from 1980 to 2010 (Figure 13.1), the region is ensured of continuous supply of young labor force which will be able to support the manpower needs of various industries. While the size of the working age population matters, the quality of labor force is important thus the region should implement appropriate policies, programs and projects to ensure that the

the young will acquire the needed human capital that would match the industry requirements. At present, the region recorded a decreasing prevalence of underweight children and an increasing number of children who were able to complete primary and secondary education which will greatly contribute to the future labor force.

Figure 13.1 Population Pyramid, Calabarzon Region



The region has recorded an improvement in employment rate from 90.3 percent in 2011 to 92.0 percent in 2015 but underemployment rate increased from 17.9 percent to 18.2 percent in the same period. This data also suggests that a significant proportion of the region's working population are not employed. This may be attributed to the mismatch of skills produced by the education sector and the skills required by the emerging industries as well as in-migration of job-seekers.

The region's working age population is likewise faced with the following challenges such as: (1) early and unplanned teenage pregnancies; (2) increasing HIV/AIDS cases; (3) proliferation of illegal drugs; (4) in-migration of unskilled labor; (6) outmigration of skilled labor; and, (7) attitudes and work preferences of the millennials. If not resolved, these challenges would also affect the future labor force as the children are the most vulnerable to the risks brought by early pregnancies and increasing crime rates related to illegal drugs, among others.

In the 2013 Young Adult Fertility and Sexuality (YAFS) survey conducted by the University of the Philippines Population Institute and the Demographic Research and Development Foundation, the region posted an increase in teenage fertility. The YAFS reported that of the females aged 15 to 19, 7.1 percent are already mothers, one percent were pregnant at the time of survey, and, 8.1 percent have begun childbearing. The increasing teenage pregnancy contributes to

population growth as well as decreasing opportunities for young mothers to enter the formal workforce as some of them may not be able to finish the required education and would be busy in child rearing.

The YAFS also showed that the region recorded seven out of 10 premarital sexual encounters are unprotected against unintended pregnancy and/or STIs which might increase the risk of HIV/AIDS cases in the region. In 2015, there are 1,267 cases of HIV/AIDS recorded. This is higher than the recorded cases in 2014. The increase in HIV/AIDS cases may also be attributed to the region's proximity to Metro Manila and the presence of ports, among others.

The infiltration of illegal drugs may also hinder to reap of the demographic dividend as it affects the peace and security as well as contributes to various social problems in the region. In January 2016, 59 percent or 2,025 out of 4,011 barangays in the region were affected by illegal drugs.

In-migration also affects demographic dividend as some migrants choose to live in the region, but because they do not have the skills required by the industry, they add up to unemployed or unproductive population of the region. On another vein, some in-migrants who are more qualified than the region's labor force are displacing residents.

The outmigration of the region's working population with better human capital leads to "brain drain." Also, some social costs are associated with outmigration.

Some children of OFs are reported to leave school early while others marry at an early age. While replacements are readily available, industries need to invest on training. In 2013, the region recorded roughly 422,280 migrant workers who left the country within the last five years. This is equivalent to around 18.4 percent of the country's migrants.

The motivation of fresh graduate to look for work with higher economic value was also identified as an issue. Instead of immediate employment after graduation, some fresh graduates postpone working if they cannot find work that provides their desired salary.

A convergence of efforts is needed to ensure that the region maximizes the benefit of demographic dividend. Ensuring the responsiveness of the education sector is key. So far, the region is endowed with public and private higher education institutions (HEIs) as

well as technical-vocational and training insitutions (TVIs) in various urban centers of the region making higher education and TVET accessible. While the region is second to NCR in terms of the number of higher education institutions, the number of HEIs with center of excellence (COE) and center of development (COD) is below that of NCR and other regions. This indicates the need for the region to encourage the HEIs to participate in the various accreditation processes and other initiatives aimed at promoting quality in higher education. In 2015, the region recorded in the decrease of malnutrition among children 0-71 mos. from seven percent in 2014 to five percent. In terms of education, around 8.09 percentⁱ of the school age population was not able to attend elementary school which maybe attributed to employment stands of parents, high cost of education and lack of personal interest among others.ⁱⁱ

Table 13.3 Distribution of Programs with COE/COD by Selected Region

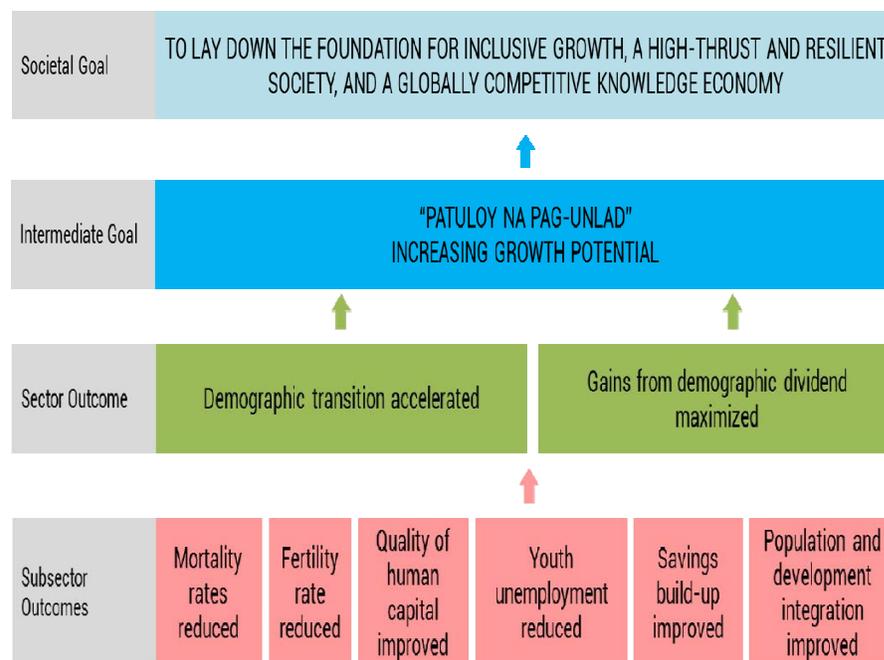
REGION	TOTAL NO. OF HEIS ¹	HEIS WITH COE/COD		NUMBER OF PROGRAMS WITH COE/COD		
		NUMBER	PERCENT	COE	COD	TOTAL
CALABARZON (R-IVA)	343	19	5.54	18	19	37
Cagayan Valley (R-II)	73	11	15.07	5	9	14
Northern Mindanao (R-X)	108	16	14.81	16	33	49
Cordillera Administrative Region (CAR)	57	8	14.04	8	14	22
Ilocos Region (R-I)	113	13	11.50	5	14	19
Total	2,388	182	7.62	199	233	432

Note: ¹ Number of AY 2014-15 HEIs as of 1 June 2016

Source: CHED - Office of Programs and Standards Development

Strategic Framework

Figure 13.2 Strategic Framework for Reaching the Demographic Dividend



Targets

The indicators identified are based on the targets set in the Philippine Development Plan 2017-2022.

Table 13.4 Plan Targets to Reach the Demographic Dividend

INDICATORS	BASELINE		END OF PLAN TARGET 2022	RESPONSIBLE AGENCIES
	YEAR	VALUE		
Sector Outcome 1: Accelerate demographic transition				
Total Fertility Rate decreased (%)	2013	3.0	Decreasing	NDHS, POPCOM, DOH, LGUs
Modern contraceptive prevalence rate for modern family planning increased (%)	2015	32	Increasing	POPCOM, DOH
Crude Birth rate decreased (%)	2010-2015	21.3	Decreasing	POPCOM, DOH, PSA
Reduced proportion of adolescents (15-19 years old) who have begun childbearing (%)	2013	8.1	Decreasing	YAFSS, POPCOM
Reduced young dependency ratio	2010	50.3	Decreasing	PSA
Sector Outcome 2: Maximize gains from the demographic dividend				

INDICATORS	BASELINE		END OF PLAN TARGET 2022	RESPONSIBLE AGENCIES
	YEAR	VALUE		
Increased life expectancy	2010	69.48 (Male) 75.62 (Female)	Increasing	PSA
Maternal mortality ratio per 100,000 live birth decreased	2015	63	Decreasing	DOH
Under-five mortality rate per 1,000 live births decreased	2015	13	Decreasing	DOH
Prevalence of stunting among children under 5 decreased (%)	2015	27.7	Decreasing	NNC
Reduced youth unemployment rate (15-24 years old)	2015	19.3	Decreasing	PSA

Source: DOH, PSA

Priority Strategies and Legislative Agenda

The region shall pursue the following interventions necessary to take advantage of the demographic dividend.

Improving the health and nutrition well-being:

- Provide complete immunization packages for children
- Upgrade nutrition programs for all ages

Reducing unwanted pregnancies:

- Peer counseling
- Implement effective sexuality education
- Involvement of parents on the promotion to address unwanted pregnancies
- Strengthen women empowerment initiatives and GAD advocacy

Intensify Labor, Financial Markets, and Human Capital interventions:

- Address skills mismatched by improving the school curriculum and strengthening academe-industry linkage

- Improve labor and employment forecasting
- Strengthen and expand the implementation of Jobstart Program and Jobs Fair Program
- Conduct reorientation program fresh graduates
- Conduct labor education for graduating students
- Strengthen career guidance of schools at least from the junior high school to college and provide mechanisms for students
- Integrate in the curriculum career options starting at the pre-elementary
- Implementation of capability training for unemployed workforce and out of school youth
- Conduct of leadership trainings for the youth and empowerment seminars
- Support youth entrepreneurship
- Increase advocacy on prevention and treatment of HIV and other sexually transmitted infections

- Inclusion of financial literacy in the curriculum
- Enhance the K to 12 Program as a mechanism for job stratification. As such, it should be attuned to labor forecasts
- Review the National Service Training Program (NSTP) as a mechanism to cultivate love of country among the young but also as a means for the youth to determine their work interest and build their skills on entrepreneurship and employment
- Enhance the sports development program as a means to build skills for employability as well as provide career opportunities on sports that would entice the young population
- Strengthen current initiatives on enticing the youth to enroll in agriculture courses or engage in agriculture by providing additional incentives such as capital or land for cultivation

Major Programs and Projects

- Strengthened implementation of U4U (You-for-You) Teenager Trail program
- Expansion of the Jobstart Program and Jobs Fair
- Labor education for graduating students
- Conduct of career guidance from JHS to college
- Inclusion of FinLit in the curriculum
- Full implementation of RA 10354-RPRH Act of 2010

ⁱ 2015 Calabarzon Regional Development Report

ⁱⁱ 2011 Annual Poverty Indicators Survey

14 Vigorously Advancing Science, Technology, and Innovation

Vigorously Advancing Science, Technology, and Innovation

This Chapter assesses the Region's performance in promoting Science, Technology and Innovation (STI) and defines the key priority strategies to accelerate technology adoption and stimulate innovation.

Assessment and Challenges

R&D Expenditures

Investments in research and development (R&D) and education and capacity building are recognized as important factors for productivity and economic growth. Key indicators to measure the development of STI is the increased investments in R&D and increased support to the development of human resources in various science and technology (S&T) fields.

Calabarzon had 30 percent share to the country's total R&D expenditures which

was second to the National Capital Region (NCR) with 51 percent share. This shows that majority of projects on technology and innovation is concentrated in NCR. Moreover, per capita expenditure on R&D in the region was very minimal at PHP0.35 compared to NCR's per capita expenditure of PHP3.56. However, the region's R&D expenditures increased by 50 percent from 2011 to 2013. About 56 percent of R&D expenditures came from R&D activities of industries which was higher compared to R&D expenditures of industries in NCR.

Table 14.1 Research and Development Expenditure by Region and by Sector (in '000 PHP), 2013

REGION	SECTOR OF PERFORMANCE					TOTAL
	GOVERNMENT	HIGHER EDUCATION		PRIVATE NON PROFIT INST.	PRIVATE INDUSTRY	
		STATE	PRIVATE			
Philippines	4,731,594	4,810,956	555,072	130,967	5,686,120	15,914,710
NCR	2,334,740	3,065,714	447,343	110,023	2,111,115	8,068,936
CAR	4,942	12,835	-	-	16,543	34,319
Region I	41,000	104,054	2,633	-	51,549	199,236
Region II	76,672	2,769	12,973	-	6,180	98,594

REGION	SECTOR OF PERFORMANCE					TOTAL
	GOVERNMENT	HIGHER EDUCATION		PRIVATE NON PROFIT INST.	PRIVATE INDUSTRY	
		STATE	PRIVATE			
Region III	557,753	46,525	9,139	-	152,925	766,342
Region IV-A	1,239,109	894,915	4,472	-	2,696,154	4,834,649
Region IV-B	93,332	6,790	157	1,584	4,664	106,527
Region IV	66,742	80,611	12,925	-	12,694	172,971
Region VI	24,596	94,603	8,483	-	56,254	183,936
Region VII	10,934	5,024	12,784	-	228,093	256,835
Region VIII	9,223	44,502	8,388	-	8,364	70,478
Region IX	42,061	13,434	3,795	-	7,042	66,331
Region X	106,111	229,550	12,668	12,722	222,701	583,751
Region XI	35,442	112,863	16,513	2,425	53,076	220,319
Region XII	54,501	28,584	1,920	4,214	22,622	121,841
Region XIII	20,784	64,623	519	-	35,778	121,704
ARMM	3,653	3,560	361	-	365	7,940

Source: DOST

The region ranks first nationwide in terms of R&D expenditure ratio to gross regional domestic product in 2013 at 0.26 percent. The region surpassed NCR with only 0.19 percent which ranked number one in 2011. This shows recognition of the region of the

importance of R&D activities to spur economic and social growth. However, this is still below the standard set by the United Nations Educational, Scientific and Cultural Organization (UNESCO) of one percent for R&D of developing countries.

Table 14.2 Ratio of R&D Expenditure to GDP by Region, 2013

REGION	R&D EXPENDITURES ('000 PHP)	GDP ('000 PHP)	RATIO (%)
Philippines	15,914,710	11,548,191,402	0.14
NCR	8,068,936	4,290,630,471	0.19
CAR	34,319	227,924,971	0.02
Region I	199,236	359,706,535	0.06
Region II	98,594	208,546,727	0.05
Region III	766,342	1,018,224,367	0.08
Region IV-A	4,834,649	1,881,381,141	0.26
Region IV-B	106,527	186,762,078	0.06
Region IV	172,971	240,303,496	0.07
Region VI	183,936	455,654,312	0.04
Region VII	256,835	732,977,310	0.04
Region VIII	70,478	250,344,509	0.03
Region IX	66,331	230,651,364	0.03
Region X	583,751	438,917,211	0.13
Region XI	220,319	461,427,167	0.05
Region XII	121,841	333,172,764	0.04
Region XIII	121,704	130,475,588	0.09
ARMM	7,940	101,091,392	0.008

Source: DOST

R&D activities were directed to socioeconomic objectives such as agricultural production and technology, industrial production and technology, protection and improvement of human health, control and care of environment, development and utilization of renewable energy, adaptation and mitigation to reduce the impact of climate change, among others.

Human Resource

In 2013, Calabarzon ranked second next to NCR in terms of total R&D personnel and researchers. About 25 percent of R&D personnel and researchers in the country were from Calabarzon with majority working in the private sector due to numerous industrial zones located in the region. The R&D human resource is composed of researchers, scientific,

technological and engineering personnel, technicians and support personnel.

Research and Publications

The Regional Development Research Agenda 2014-2016 identified priority research areas to address development issues, concerns, and challenges in the Region. The research areas are towards improving productivity and competitiveness in agriculture and fisheries, manufacturing, IT-BPM and tourism development. Other research areas are in migration and development, energy development, and environmental protection, natural resource and disaster risk reduction management.

Table 14.3 R&D Personnel and Researchers, 2013

REGION	GOVERNMENT	SECTOR OF PERFORMANCE				TOTAL
		HIGHER EDUCATION		PRIVATE NON PROFIT INST.	PRIVATE INDUSTRY	
		STATE	PRIVATE			
R&D Personnel						
Philippines	3,774	7,646	2,543	227	22,327	36,517
NCR	2,019	1,406	791	193	8,698	13,107
Region III	246	446	143	-	1,733	2,568
Region IV-A	170	2,271	163	-	6,631	9,235
Researchers						
Philippines	2,965	7,144	2,364	179	13,843	26,495
NCR	1,486	1,286	748	154	5,393	9,067
Region III	204	415	124	-	1,074	1,817
Region IV-A	170	2,210	163	-	4,111	6,654

Source: DOST

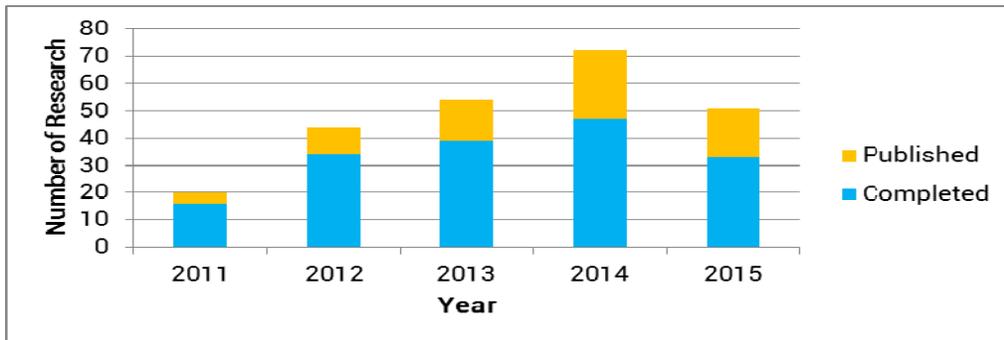
The number of researches completed showed increasing trend from 2011 to 2014

but declined in 2015 by 29 percent. It can also be noted that the proportion of

published researches was limited during the period. R&D activities are key to technological innovations that are beneficial to growth of numerous sectors and industries. Publications of completed

research works will contribute to wide dissemination of results and outcomes to various stakeholders. In addition, technological innovations commonly took off from R&D projects.

Figure 14.1 Completed and Published Researches, Calabarzon, 2011-2015

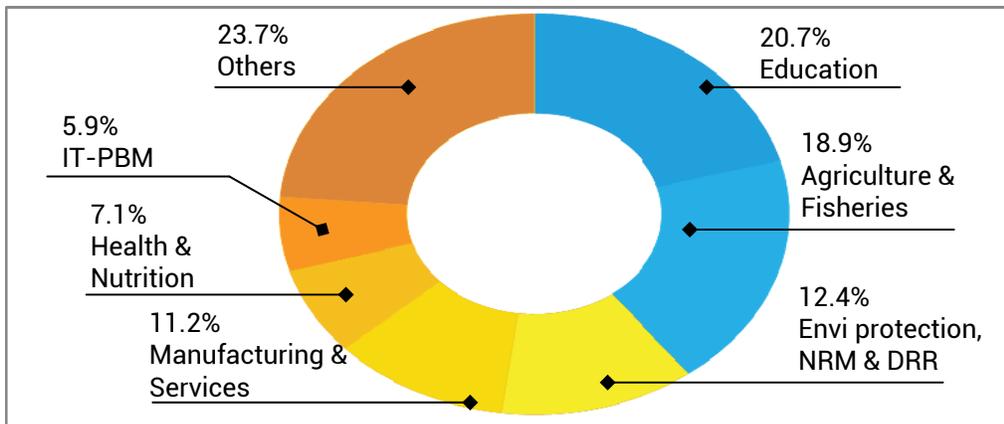


Source: EXPLORE

Completed research projects were commonly focused on education, agriculture, and fisheries and were primarily conducted by SUCs (State Universities and Colleges) that have campuses specializing in agriculture. More than 10 percent of the researches were focused on manufacturing and services and environment protection, natural resource management and disaster risk

reduction while less than 10 percent were on IT-BPM and health and nutrition. Only about 6 percent were conducted for IT-PBM which is one of the priority industries in the region. Other areas of study included energy, migration and development, tourism development, governance, infrastructure and social protection.

Figure 14.2 Focus of Completed Researches, Calabarzon, 2011-2015



Source: EXPLORE

The completed researches were conducted by government agencies, the higher education institutions and a private non-profit institution. Majority of the R&D

projects were conducted by state universities and colleges followed by the government sector.

Table 14.4 Completed Researches by Sector, Calabarzon, 2011-2015

AGENCY	2011	2012	2013	2014	2015
All	16	34	39	47	33
Government	4	8	10	6	4
HEI State	9	15	23	31	12
HEI Private	0	3	5	5	6
Private Non Profit	3	8	1	5	11

Source: EXPLORE

Intellectual Property Rights

The region has intellectual property rights (IPR) applications for patents, utility model and industrial design. Among these, most of the applications were for industrial design followed by utility model. An industrial design is the ornamental or aesthetic aspect of an article. It may consist of a three-dimensional design applied to a wide variety of products of industry and handicraft. A patent is an exclusive right granted in development or improvement of product or process. It gives the inventor the sole right to exclude others from making, using or selling the invention. On the other hand, a utility model is designed to protect innovations that are not sufficiently inventive to meet the inventive threshold required for standard patents application (IPOP HL).

While industrial design has the most applications for IPR, applications were decreasing from 2013 to 2015. Applications for patents increased in 2015

with 42 applications compared to 39 applications both in 2013 and 2014. The total number of applications from Calabarzon contributed 11 percent to total applications in the country.

Notably, proportion of IPR applications that were granted was higher for utility model and industrial design with an average of 65 percent and 61 percent, respectively. This can be attributed to the difficulty in demonstrating an invention is patentable. To classify in a patent application, the invention should be a novelty, has an inventive step and has industrial applicability. On the other hand, increasing number of utility models and industrial designs registered in 2013 to 2015 showed the region's improving quality on these inventions.

Table 14.5 Intellectual Property Rights Applications and Registrations, Calabarzon, 2013-2015

YEAR	APPLICATIONS			GRANTS/REGISTRATIONS			PERCENT REGISTERED		
	PATENTS	UTILITY MODEL	INDUSTRIAL DESIGN	PATENTS	UTILITY MODEL	INDUSTRIAL DESIGN	PATENTS	UTILITY MODEL	INDUSTRIAL DESIGN
2013	39	48	126	6	37	68	15.38	77.08	53.97
2014	39	65	120	5	36	41	12.82	55.38	34.17
2015	42	48	50	2	30	48	4.76	62.50	96.00

Source: Intellectual Property Office of the Philippines (IPOPHL)

Knowledge is highly recognized as a driver of economic growth and social wellbeing. Proper use of information to create value adding knowledge is beneficial to productivity enhancement and competitiveness. Consequently, all actors involved in science, technology and innovation are important to translate results of R&D activities into appropriate technology and innovations that will benefit the society. To realize this, the following challenges should be addressed:

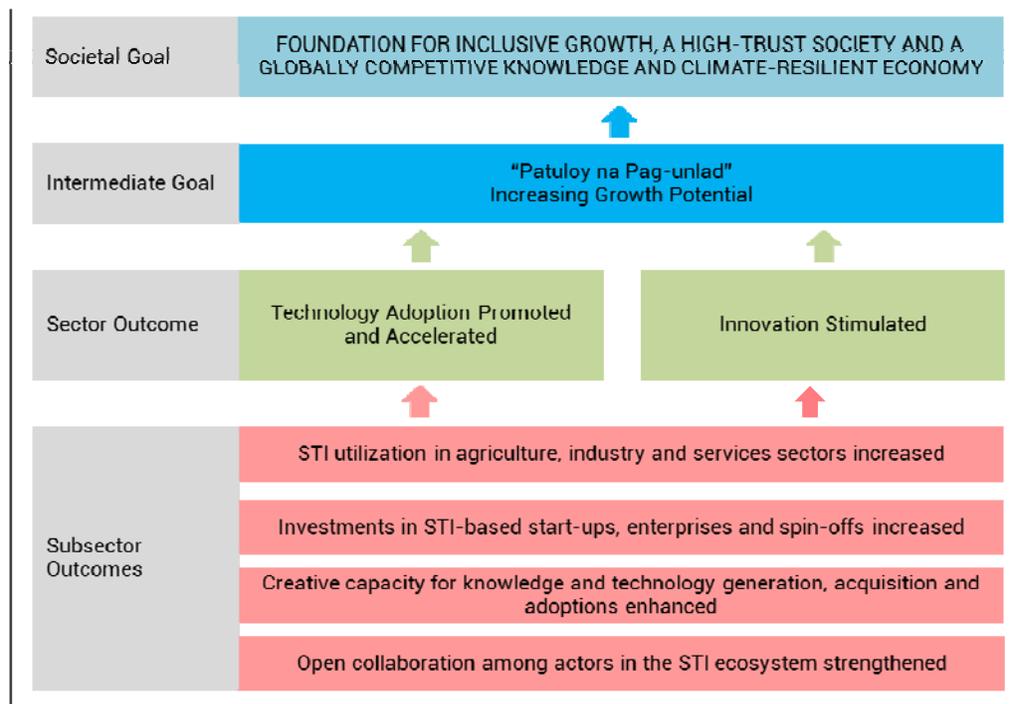
1. low spending on R&D activities
2. low research and innovation productivity
3. low adoption and application of technology to advance the MSME, agriculture and fisheries sector
4. weak culture of science, technology and innovation sector
5. brain drain
6. low absorptive capacity of institutions particularly in the regions
7. weak intellectual property (IP) culture among technology generators, limited technology transfer system, and issues on technology ownership and information sharing
8. limited Public-Private-People Partnership
9. constraints in the administrative processes (e.g. procurement of R&D equipment, etc.)
10. infrastructure deficit.

Strategic Framework

The Plan aims to increase potential growth of the region. This will be realized through attainment of the sector outcomes, namely: a) technology adoption promoted and

accelerated; and b) innovation stimulated. These sector outcomes are supported by the sub-sector outcomes identified in each as shown in Figure 14.3.

Figure 14.3 Strategic Framework for Advancing Technology and Innovation



Targets

The indicators for technology and innovation were focused on the rate of technology designs and inventions developed and registered to the Intellectual Property Office of the Philippines. The magnitude of R&D expenditures will

determine the capacity of the region for innovative and technology development activities. Science and technology outputs are necessary for advancement of different sectors of the economy through expanding their growth potential. The assessment of its adoption and utilization is beneficial to determine attainment of this goal.

Table 14.6 Plan Targets for Advancing Technology and Innovation

INDICATOR	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Number of patents applied increased	42	Increasing	IPOPHL
Number of patents registered increased	2	Increasing	IPOPHL
Number of utility model applied increased	48	Increasing	IPOPHL
Number of utility model registered increased	30	Increasing	IPOPHL
Number of industrial design applied increased	50	Increasing	IPOPHL
Number of industrial design registered increased	48	Increasing	IPOPHL

Strategies

The following are priority strategies in support of the subsector outcomes:

- A. STI utilization in agriculture, industry and services sectors increased
 - *Innovations.* Disseminate, transfer and commercialize the utilization of new technologies, information and processes that are derived from STI activities will be hastened. Innovations that will improve productivity in agriculture, industry and services sectors will be given importance. Information campaigns through fora, fairs and exhibits will be fully utilized.
 - *Create an Intellectual Property culture.* An Intellectual Property culture in the Region will be developed through aggressive promotion of intellectual property rights for better appreciation and understanding. Information campaigns promoting importance of IPR will be conducted to strengthen public awareness.
- B. Investments in STI-based start-ups, enterprises and spin-offs increased
 - *Provide support mechanisms.* Support mechanisms for start-ups and MSMEs will be provided. The Small Enterprise Technology Upgrading Program (SETUP) of Department of Science and Technology provides innovative and cost-effective facilities and technical support for compliance to product quality standards. Innovative financing mechanisms and private sector investments will also be encouraged.
- *Provide an easy access to science and technology information and services.* Tools that will provide MSMEs an easy access to science and technology information will be developed and promoted. Information and education campaign materials will also be translated to be user friendly.
- C. Creative capacity for knowledge and technology generation, acquisition and adoptions enhanced
 - *Promote policies supportive of technology development and innovation.* The Magna Carta for Scientists, Engineers, Researchers and other S&T Personnel in the Government (RA 8439) will be strengthened to achieve and maintain the talent and manpower to sustain the drive for STI. The *Balik Scientist Program* of DOST will also be strengthened to tap Overseas Filipinos expertise.
 - *Promote critical thinking and innovative behavior.* The culture and value of critical thinking and innovative behavior especially among the youth will be promoted to encourage interest in research and technology design. Teaching strategies on basic and secondary education will incorporate promotion of STI. Immersions of secondary students in industries will be encouraged.
 - *Enhance the STI infrastructure.* STI infrastructure particularly the ICT infrastructure will be improved to have better internet connectivity that will boost productivity of research and other STI activities. Upgrading of important STI facilities managed by

government agencies and SUCs will be continuously pursued.

- *Support the region's research and development agenda.* The research and development agenda defines the research priorities in the region. Results of the studies are significant to encourage growth in the different sectors. The region's research and development agenda will be published for dissemination to encourage research on identified topics.

D. Open collaboration among actors in the STI ecosystem strengthened

- *Establish strong linkage between STI actors.* The linkage between research institutions and technology adaptors will be strengthened to accelerate the development of technologies and innovation. Similarly, academe-industry linkage will also be strengthened to achieve effective transfer of appropriate technology and advance skills needed by industries. The research-extension continuum will be improved.

Major Programs and Projects

The following are the programs and projects supportive of the priority strategies and will contribute to subsector outcomes:

- Community Empowerment through Science and Technology – Upscaling Program (CEST-UP)
- Small Enterprise Technology Upgrading Program (SETUP)
- Harmonized e-Network to Yield Outcomes (HENYO)
- Food Safety Program and Rx Box
- Project on Food Innovation Centers
- Program for Packaging Labeling
- Tsunami early warning system and automated weather stations
- Project on Center for Hazard and Environmental Resource Mapping
- R&D program for the academe, industry and government institutions
- S&T fairs promoting S&T innovations and entrepreneurship.

PART V

ENABLING AND SUPPORTIVE ECONOMIC ENVIRONMENT



15

Ensuring Sound
Macroeconomic
Policy

Ensuring Sound Macroeconomic Policy

This chapter assesses the economic performance of the region and identifies key challenges, strategies and strategic interventions to increase economic opportunities towards growth and development. Increasing productive output and employment generation are the prerequisites in fighting poverty.

To attain macroeconomic stability, the region will have to: a) address the challenges of competition globally, with ASEAN countries and with other local regions; b) improve its infrastructure connectivity; c) disperse development opportunities in several areas; d) diversify and explore new investment areas; e) integrate and promote its cultural identity; f) keep up with technology advancement; g) adapt to climate change and promote disaster preparedness; h) sustain a peaceful environment; and i) advocate for the continuity of the programs and projects being implemented by local governments units across four administrations towards sustainability.

Assessment and Challenges

A. Sustained Economic Growth

The region's economy has been growing at an annual average of 6.2 percent from 2012 to 2015 propelled by the growth of manufacturing industries. The fastest growth was experienced in 2012 when the economy grew by 7.3 percent due to the growth of the industry sector. The lowest growth was in 2014 when agriculture and fisheries contracted to 1.2 percent due to unfavourable weather.

In 2015, the Region recovered as growth accelerated to 5.9 percent. Though the growth was still below the target by 0.3 percentage point, Calabarzon continues to be the fastest-growing region in the

country and the second biggest contributor to the national economy, next to NCR.

Despite the consistent growth of the region's economy, inclusiveness remains to be an issue, particularly in areas where agriculture is the main source of income. Hence, there is a need to create more economic opportunities.

Table 15.1 Gross Regional Domestic Product by Industrial Origin, Calabarzon (In Million Pesos at constant 2000 prices)

SECTOR	2011	2012	2013	2014	2015
I. Agri, Hunting, Forestry and Fishing	67.74	68.67	71.17	70.30	72.13
a. Agriculture and Forestry	50.72	51.35	52.26	51.67	54.74
b. Fishing	17.02	17.32	18.92	18.63	17.39
II. Industry Sector	629.00	675.21	717.60	763.99	806.20
a. Mining and Quarrying	1.84	1.88	2.10	2.29	2.70
b. Manufacturing	548.55	581.08	620.06	664.10	700.33
c. Construction	40.62	52.78	56.51	57.71	60.61
d. Electricity, Gas and Water Supply	38.00	39.47	38.93	39.89	42.56
III. Services Sector	329.18	353.91	381.80	396.22	425.39
a. Transport, Storage & Communication	67.04	71.47	75.99	81.02	85.79
b. Trade and Repair of Motor Vehicles, Motorcycles, Personal & Household Goods	81.44	87.38	90.60	91.48	97.79
c. Financial Intermediation	33.51	37.23	42.44	45.74	48.48
d. Real Estate, Renting & Business Activities	85.36	93.45	103.13	106.58	113.82
e. Public Administration & Defense, Compulsory Social Security	12.93	13.78	14.61	15.19	15.30
f. Other Services	48.90	50.61	55.03	56.22	64.21
GROSS REGIONAL DOMESTIC PRODUCT	1,025.93	1,097.79	1,170.57	1,230.52	1,303.72

Source: Philippine Statistics Authority

Table 15.2 Gross Regional Domestic Product by Industrial Origin, Growth Rates (In percent)

SECTOR	2011	2012	2013	2014	2015
I. Agri, Hunting, Forestry and Fishing	1.2	2.5	3.7	(1.2)	2.6
a. Agriculture and Forestry	3.8	2.0	1.8	(1.1)	5.9
b. Fishing	(5.7)	3.9	9.5	(1.5)	(6.6)
II. Industry Sector	0.1	7.3	6.3	6.5	5.5
a. Mining and Quarrying	3.3	2.0	12.0	8.9	17.9
b. Manufacturing	0.3	5.9	6.7	7.1	5.5
c. Construction	(3.2)	29.9	8.6	2.1	5.0
d. Electricity, Gas and Water Supply	0.5	3.9	(2.4)	2.5	6.7
III. Services Sector	4.9	8.1	7.9	3.8	7.4
a. Transport, Storage & Communication	3.4	7.8	6.3	6.6	5.9
b. Trade and Repair of Motor Vehicles, Motorcycles, Personal & Household Goods	4.4	7.3	3.7	1.0	6.9
c. Financial Intermediation	5.3	11.1	14.0	7.8	6.0
d. Real Estate, Renting & Business Activities	9.1	9.5	10.3	3.4	6.8
e. Public Administration & Defense, Compulsory Social Security	0.9	6.6	6.0	3.9	0.7
f. Other Services	1.8	6.1	8.7	2.2	14.2
GROSS REGIONAL DOMESTIC PRODUCT	1.7	7.3	6.7	5.1	5.9
GRDP Target	-	7.0	5.5-6.5	5.7-6.7	6.2-7.2

Source: Philippine Statistics Authority

Table 15.3 Gross Regional Domestic Product by Industrial Origin, Percent Distribution (In percent)

SECTOR	2011	2012	2013	2014	2015
I. Agri, Hunting, Forestry and Fishing	6.6	6.3	6.1	5.7	5.5
a. Agriculture and Forestry	4.9	4.7	4.5	4.2	4.2
b. Fishing	1.7	1.6	1.6	1.5	1.3
II. Industry Sector	61.3	61.5	61.3	62.1	61.8
e. Mining and Quarrying	0.2	0.2	0.2	0.2	0.2
f. Manufacturing	53.5	52.9	53.0	54.0	53.7
g. Construction	4.0	4.8	4.8	4.7	4.6
h. Electricity, Gas and Water Supply	3.7	3.6	3.3	3.2	3.3
III. Services Sector	32.1	32.2	32.6	32.2	32.6
c. Transport, Storage & Communication	6.5	6.5	6.5	6.6	6.6
d. Trade and Repair of Motor Vehicles, Motorcycles, Personal & Household Goods	7.9	8.0	7.7	7.4	8.0
e. Financial Intermediation	3.3	3.4	3.6	3.7	3.7
f. Real Estate, Renting & Business Activities	8.3	8.5	8.8	8.7	8.7
g. Public Administration & Defense, Compulsory Social Security	1.3	1.3	1.2	1.2	1.2
h. Other Services	4.8	4.6	4.7	4.6	5.0
GRDP	100	100	100	100	100

Source: Philippine Statistics Authority

Agriculture and Fisheries

The performance of the agriculture and fisheries sector varied from 2011 to 2015. From an increasing trend in 2011 to 2013, the growth contracted to negative 1.2 percent in 2014 due to the impacts of Typhoon Glenda and Cocolisap, but was able to recover to 2.6 percent in 2015, almost achieving the 3.0 percent target of the sector. The positive trend is attributed to improvement in the production of poultry and livestock i.e. swine, chicken, cattle production. However, the fish production continued to decline in 2015 due to: a) infestations of knife fish in major lakes of the region; b) depletion of fishing grounds, c) incidence of siltation, sedimentation and fish kill; d) degradation

of water quality in the region's freshwater lakes due to unmitigated discharge of domestic, industrial, and agricultural wastes; and e) prolonged dry spell.

Despite of the low contribution of agriculture and fisheries in the GRDP (Gross Regional Domestic Product), the region ranks as the second highest in terms of national agricultural output. Chicken eggs, tilapia, chicken, hogs, pineapple and coconut production are the main producers for agriculture in the Region.

Productivity of the sector remains to be challenged by the conversion of agricultural lands and vulnerability to climatic conditions.

Table 15.4 Agriculture and Fisheries Gross Value Added, Growth Rate (In percent)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Target	1.2	2.5	2.7-3.7	2.9-3.9	3.0-4.0
Actual	1.2	2.5	3.7	(1.2)	2.6
Variance	-	-	+1.0%	-4.1%	-0.4%

Source: Philippine Statistics Authority

Industry

The industry sector remained the growth driver of the Region's economy. The growth exceeded targets in 2011 to 2014, while within target in 2015. The slower growth of the industry sector is attributed to the decelerated growth of the manufacturing sub-sector, particularly office, accounting and computing machineries, petroleum and other fuel products and food manufacturers. Manufacturing contributes 86.89 percent of the industry's output and 53.7 percent of the Calabarzon's Gross Regional Domestic Product. The deceleration in the performance of manufacturing sub-sector was also due to weak demand for electronic products in the international market.

Despite the manufacturing sector's slow growth, it still has the largest share at 86.89 percent in the industry sector. However, there is a need to strengthen the micro, small, and medium enterprises (MSMEs) and link them to the big industries so they can benefit from this growth. The region`

should still consider competitiveness and inclusiveness as a viable development agenda and give priority to develop SMEs, make them part of the global value chains.

Even with the decelerated growth of manufacturing, the industry sector was able to meet its target as the mining and quarrying (8.9% to 17.9%), electricity, gas and water supply (2.5% to 6.7%) and construction (2.1% to 5.0%) sub-sectors more than doubled their growth in 2014 to 2015. The significant growth were due to increase in stone quarrying, increase in the value of production of sand and gravel, development of solar and wind power plant, increase in water production, increase in government spending in infrastructure and high demand for housing.

As the region aims to maintain high productivity, it is faced with the challenges brought by globalization and competition in the ASEAN market and other regions, limited interconnectivity of rural and urban areas and ease of doing business which affects the region's competitiveness.

Table 15.5 Industry Gross Value Added, Growth Rate (In percent)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Target	0.1	6.9	4.5-5.5	4.7-5.7	5.1-6.1
Actual	0.1	7.3	6.3	6.5	5.5
Variance	-	+0.4	+1.8	+1.8	+0.4

Source: Philippine Statistics Authority

Services

The services sector failed to meet its target growth of 8.7 to 9.7 percent. However, output increased from 3.8 percent in 2014 to 7.4 percent in 2015. The Region's share remains the second biggest contributor to the service sector's national output with gross output amounting to PHP425.39 million in 2015. This can be attributed to

the improved performance of trade, repair of motor vehicles, motorcycles, personal & household goods, real estate, renting & business activities and other services sub-sectors which include education and health related services, social works activities, entertainment and recreation, and accommodation and food service activities, among others.

Table 15.6 Services Gross Value Added, Growth Rate (In percent)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Target	4.9	8.0	8.0-9.0	8.2-9.2	8.7-9.7
Actual	4.9	8.1	7.9	3.8	7.4
Variance	-	-0.4	-0.1	-4.4	-1.3

Source: Philippine Statistics Authority

Per Capita GRDP

The region's per capita GRDP grew at an annual average of 3.17 percent since 2011. In 2015, the region's per capita GRDP was PHP92,285 which was higher than the

Philippine per capita of PHP74,770. Calabarzon has the second highest per capita GRDP. The increasing growth of the per capita GRDP reflects the sustained economic performance of the region.

Table 15.7 Per Capita Gross Domestic Product in Pesos (at constant 2000 prices)

REGION/YEAR	2011	2012	2013	2014	2015	ANNUAL AVERAGE GROWTH
Philippines		65,332	68,476	71,790	74,770	3.43
NCR	173,057	181,748	195,013	203,231	219,114	4.83
CAR	73,490	70,156	72,773	73,969	74,845	0.40
I Ilocos	38,087	40,325	42,646	44,892	46,008	3.85
II Cagayan Valley	32,017	33,816	35,571	37,644	38,269	3.63
III Central Luzon	52,372	55,163	56,557	60,676	63,455	3.91
IVA Calabarzon	78,966	81,562	84,657	86,654	92,285	3.17
IVB Mimaropa	37,283	38,239	38,141	40,706	39,495	1.16
V Bicol	20,979	22,502	24,014	24,720	25,648	4.10
VI Western Visayas	33,296	35,139	35,883	37,293	39,484	3.47
VII Central Visayas	52,192	56,061	59,200	62,795	64,858	4.44
VIII Eastern Visayas	36,784	33,850	35,002	33,771	33,547	-1.83
IX Zamboanga	33,489	37,077	38,001	39,887	41,683	4.48
X Northern Mindanao	50,506	52,842	54,721	57,613	60,178	3.57
XI Davao	49,112	51,657	54,196	58,275	61,197	4.50
XII SOCCSKSARGEN	37,533	39,417	41,835	43,498	44,202	3.32
XIII CARAGA	28,203	30,985	33,051	35,672	35,444	4.68
ARMM	14,271	14,052	14,388	14,611	13,588	-0.98

Source: Philippine Statistics Authority

Labor and Employment

The region is the largest source of labor force in the country, as it contributes 13.2 percent to the nation's labor force. Employment rate consistently increased from 90.3 percent in 2011 to 92.0 percent in 2015 due to the growing economic activities and employment generation initiatives of the government.

Consequently, unemployment rate decreased from 9.7 percent in 2011 to 8.0 percent in 2015 as employment opportunities expanded in information and communication, manufacturing, construction, administrative support service activities, and human health and social work services subsectors.

However, underemployment increased from 17.9 percent in 2011 to 18.2 percent in 2015, which is below the target of 17.5

percent. This could be attributed to job-skill mismatch, inadequate increase in the minimum wage adjustments and minimal expansion and investment in the industry and services sectors.

While the region continuously generates jobs, it still has high unemployment and underemployment due to migrants who flock to the Region seeking employment.

On the other hand, the region has the biggest number of OFs with 17.9 percent of the country's OFs coming from Calabarzon. As such, the region initiated the establishment of One-Stop Shop Migration Centers in the five provinces to assist the OFs and their families handle the challenges brought by migration. The centers also help the OF families maximize the benefits of remittances for investment opportunities.

Table 15.8 Employment, Unemployment, and Underemployment Rate, 2011-2015 (In percent)

	2011	2012	2013	2014	2015
Employment					
Target	-	-	93.9-94.1	93.9-94.1	93.9-94.1
Actual	90.3	91.1	90.8	92.0	92.0
Variance	-	-	-3.1	-1.9	-1.9
Unemployment					
Target	9.7	8.9	8.6-9.4	8.6-9.4	8.6-9.4
Actual	9.7	8.9	9.2	8.0	8.0
Variance	-	-	-0.6	+0.6	+0.6
Underemployment					
Target	17.90	17.90	<17.5	<17.5	<17.5
Actual	17.90	17.90	17.9	18.7	18.2
Variance	-	-	-0.4	-1.2	-0.7

Source: 2016 RSET, PSA Labor Force Survey

Poverty Incidence

The region's poverty situation improved as poverty incidence among families declined from 8.3 percent in 2012 to 6.7 percent in 2015, the second lowest among regions, next to NCR. The poverty incidence of the region is also below the national of 16.5 percent. The improvement was due to the various poverty alleviation programs initiated by the government.

While the regional situation had improved, not all the provinces experienced the same

trend. Cavite's poverty incidence among families worsened from 2.6 percent in 2012 to 4.5 percent in 2015 due to resettlement of informal settlers from the NCR and nearby provinces.

Poverty incidence is also highest in agricultural areas; thus the need for collective and convergence efforts in these areas to increase agricultural productivity and provide other alternative livelihood opportunities.

Table 15.9 Poverty Incidence Among Families and Among Population by Region, 2009-2015 (In percent)

REGION	2009	2012	2015
Among Families			
PHILIPPINES	20.5	19.7	16.5
NCR	2.4	2.6	2.7
Region IV-A	8.8	8.3	6.7
Region III	10.7	10.1	8.9
Region I	16.8	14.0	9.6
Among Population			
PHILIPPINES	26.3	25.2	21.6
NCR	3.6	3.9	3.9
Region IV-A	11.9	10.9	9.1
Region III	13.7	12.9	11.2
Region I	22.0	18.5	13.1

Source: Philippine Statistics Authority

Table 15.10 Poverty Incidence Among Families and Among Population by Province, Calabarzon, 2009-2015 (In percent)

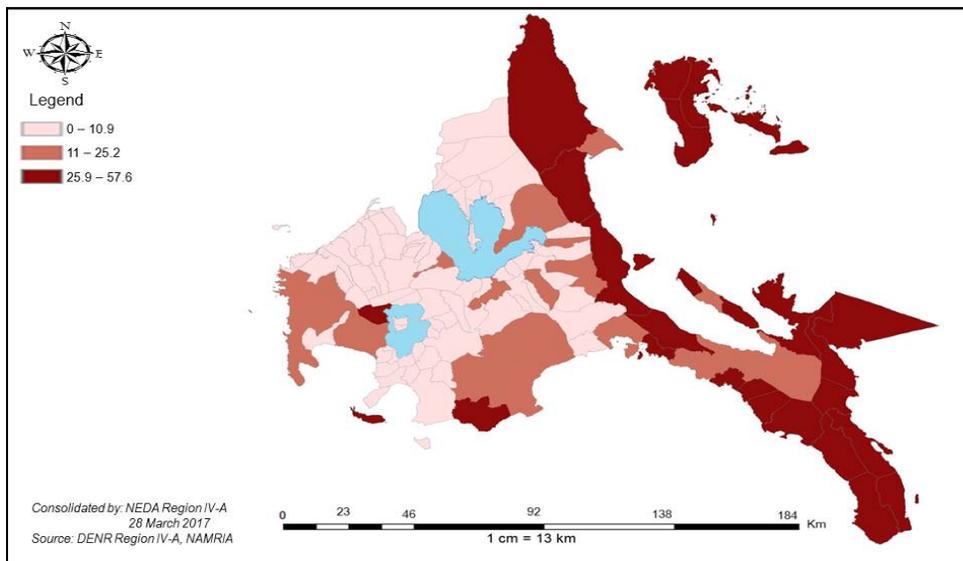
PROVINCE	2009	2012	2015
Among Families			
Region IV-A	8.8	8.3	6.7
Batangas	12.6	14.7	6.8
Cavite	2.2	2.6	4.5
Laguna	6.2	4.6	4.1
Quezon	22.1	20.3	17.1
Rizal	5.8	5.0	3.6
Among Population			
Region IV-A	11.9	10.9	9.1
Batangas	17.1	19.0	9.3
Cavite	3.2	3.4	6.8
Laguna	8.4	6.4	5.4
Quezon	29.8	27.5	22.7
Rizal	8.6	6.1	5.4

Source: Philippine Statistics Authority

To reduce poverty in the region, the Regional Development Council initiated convergence programs to the 35 least developed municipalities in the region.

These are the municipalities with poverty incidence higher than the national level (Figure 15.1).

Figure 15.1 Calabarzon Least Developed Municipalities (based on 2012 Small Area Poverty Estimate – Poverty Incidence Among Population, in percent)



Inflation

The prices of basic commodities remained stable with consumer prices dropping to the lowest level in 2015 at 0.9 percent. Tempered price movement in housing, water, gas, other fuels, and transportation pushed the inflation lower than the national average of 1.4 percent. The region even posted negative inflation in the third quarter of 2015 at 0.2 percent.

The marked decline in prices of oil in the international market contributed to the stable prices of production cost of food and non-alcoholic beverages products.

Among the provinces, Quezon recorded the highest decrease in inflation by 4.3 percentage point. This is attributable to the decrease in prices of food and non-alcoholic beverages and basic utilities such as housing, water, fuels, and transportation.

An unstable inflation rate at the national level is expected to affect the inflation rate of the region in the 2017-2022 due to pending petitions for adjustments in electricity rates, volatilities in global commodities specially in crude oils, tax policy reform program and protectionist policies of developed countries such as USA.

Table 15.11 Inflation Rate, Calabarzon, 2011-2015 (In percent)

	2011	2012	2013	2014	2015
Target	-	2.7	2.6	3-5%	3-5%
Actual	5.0	2.7	2.6	4.0	0.9
Variance	-	-	-	1%	+2.1%

Source: Philippine Statistics Authority, 2016 RSET

B. Financial Inclusiveness

Banking System

The banking system in Calabarzon consistently showed continued growth and stability from 2012 to 2015. Significant improvement was achieved as shown in the number of banks, bank density ratio, the number of automated teller machines (ATMs), the amount of deposit liabilities, loan portfolio of banks and the number of microfinance-oriented offices. The increasing number of financial services in

the region is a result of rapid urbanization, economic opportunities and relatively high income of the population.

In 2015, there were 1,609 banks in the region. Universal/Commercial Banks (UCBs) constitute about 40 percent of the banks followed by Rural Banks (RBs) at 33 percent and Thrift and Savings Banks (TSBs) at 27 percent. This is an increase of 14.44 percent from 2012 (Table 15.12).

Table 15.12 Number of Offices by Type of Bank, Calabarzon, 2012-2015

AREA/TYPE OF BANK	2012	2013	2014	2015	2012-2015 CHANGE (%)
Universal/ Commercial Banks (UCB)	553	582	624	648	17.18
Thrift and Savings Banks (TSB)	317	377	390	435	37.22
Rural Banks (RB)	536	543	544	526	(1.86)
Calabarzon	1406	1502	1558	1609	14.44

Source: National Competitiveness Council, City/Municipality Competitiveness Index data sourced from *Bangko Sentral ng Pilipinas*

Table 15.13 shows that the provinces of Batangas, Cavite and Laguna have the most number of banks. Laguna has the most number of universal and commercial banks and rural and cooperative banks

while Cavite has the most number of thrift banks. Quezon has the least percentage in the increase of number of banks at one percent.

Table 15.13 Number of Banks in Calabarzon by Type, by Province, 2014-2015

PROVINCE	UNIVERSAL/ COMMERCIAL BANKS		THRIFT BANKS		RURAL/ COOPERATIVE BANKS		TOTAL		% CHANGE
	2014	2015	2014	2015	2014	2015	2014	2015	
Batangas	126	134	104	115	121	121	351	370	5%
Cavite	174	178	112	123	57	53	343	354	3%
Laguna	179	188	95	104	159	157	433	449	4%
Quezon	51	53	23	26	135	132	209	211	1%
Rizal	97	106	61	68	72	63	230	237	3%
Total	627	659	395	436	544	526	1,566	1,621	4%

Source: BSP Supervisory Data Center

As of December 2015, the total assets of banks reached PHP560.40 billion, where UCBs have the largest share at 80 percent, followed by TBs at 13 percent and RCBs at

7 percent (Table 15.14). The increase in number and assets of banks provide safety nets against consumer credit risks.

Table 15.14 Total Assets by Type of Bank, Calabarzon, 2012-2015 (in billion pesos)

AREA/TYPE OF BANK	2012	2013	2014	2015	2012-2015 CHANGE (%)
Universal and Commercial Banks (UCB)	251.94	304.00	327.31	448.79	78.13
Thrift Banks(TB)	50.72	51.67	58.53	74.42	46.72
Rural and Cooperative Banks(RCB)	32.13	34.82	38.59	37.18	(15.72)
Calabarzon	334.78	390.49	424.43	560.40	67.39

Source: Bangko Sentral ng Pilipinas (BSP)

The bank density ratio in Calabarzon is 11 percent. This means there are 11 banks servicing a city/municipality. As shown in

Table 15.15, Rizal has the highest density in 2014 and 2015.

Table 15.15 Bank Density Ratio in Calabarzon, 2014-2015 (in percent)

PROVINCE	BANK DENSITY RATIO	
	2014	2015
Batangas	10	11
Cavite	15	15
Laguna	14	15
Quezon	5	5
Rizal	16	17
Calabarzon	11	11

Source: BSP Supervisory Data Center

The ATMS installed in the region increased by 46.79 percent from 1,748 in 2012 to 2,566 machines in 2015 both on-site (those within the location of the bank) and off-site (those beyond the location of the bank) (Table 15.16). ATMs were

installed to make banking services more accessible and available for the clients to withdraw cash, pay bills, transfer funds and do other banking transactions any day, any time.

Table 15.16 Number of Automated Teller Machines, Calabarzon, 2012-2015

TYPE OF BANK	2012	2013	2014	2015	2012-2015 CHANGE (%)
Onsite	938	1113	1192	1301	38.70
Universal and Commercial Banks	734	860	913	978	33.247
Thrift Banks	167	194	207	248	48.50
Rural and Cooperative Banks	37	59	72	75	102.70
Offsite	810	994	1062	1265	56.17
Universal and Commercial Banks	720	878	936	1099	52.64
Thrift Banks	89	115	125	161	80.89
Rural and Cooperative Banks	1	1	1	5	400
Calabarzon	1,748	2,107	2,254	2,566	46.79

Source: Bangko Sentral ng Pilipinas

Deposit liabilities are the money that the people and companies put in banks and that the banks have to eventually pay back. In 2015, deposit liabilities in the region increased by 16 percent amounting

to PHP620.92 billion compared to PHP535.98 billion in 2014 (Table 15.17). The increase in deposit liabilities indicates that the people trust the banking system to deposit their money in banks.

Table 15.17 Deposit Liabilities by Type of Bank, 2013-2015 (in billion pesos)

AREA/TYPE OF BANK	2013	2014	2015
Universal & Commercial Banks	380.12	441.57	520.82
Thrift Banks	60.59	62.35	69.94
Rural & Cooperative Banks	27.00	32.06	30.15
Calabarzon	467.71	535.98	620.92

Source: Bangko Sentral ng Pilipinas

Loans were extended by banks for production or consumption purposes. The production sectors relied on banks as a major source of fund for their operations, which in turn also generate jobs. In 2015,

loans extended by banks reached PhP117.69 billion. This is an increase of 26 percent as compared to PhP93.19 billion in 2013 (Table 15.18).

Table 15.18 Net Loan Portfolio by Type of Bank, Calabarzon, 2013-2015 (in billion pesos)

AREA/TYPE OF BANK	2013	2014	2015
Universal & Commercial Banks	48.39	56.74	63.72
Thrift Banks	28.13	32.41	38.82
Rural & Cooperative Banks	16.66	18.33	15.15
Calabarzon	93.19	107.48	117.69

Source: Bangko Sentral ng Pilipinas

Among the challenges of the banking sector are the: a) limitation on access points and the increasing concentration in urban centers which discourage capital market participation and access to business

financing among the marginalized sectors and rural communities; b) stringent requirements by banks which discourage MSMEs and the informal sector in availing financial services; and c) need

to improve the mobilization of financial resources into viable investment and savings mechanisms.

Microfinance Services and Cooperatives

Microfinance is the provision of banking services to low income population who cannot meet the requirements of formal lending institutions.

Table 15.19 shows the microfinance statistics in Calabarzon from 2013 to 2015. Banks offering microfinance services increased by 6.35 percent which also resulted to a 48.53 percent increase in the number of borrowers. The total outstanding loan and savings component likewise grew by 58.26 percent and 58.36

percent, respectively. The figures indicate that accessibility to financing services by the low income population was being addressed in the region.

Cooperatives like microfinance institutions play a vital role in the economic development of the region by providing an alternative source of financing. These create opportunities for jobs, livelihood and income.

Calabarzon has a total of 3,027 registered cooperatives in 2015 (Table 15.20). Majority of the registered cooperatives are under the multi-purpose type with 1,833 cooperatives followed by credit type cooperatives with 389 cooperatives. Two agriculture cooperatives registered in 2015.

Table 15.19 Microfinance Statistics, Calabarzon, 2013-2015

	2013	2014	2015	Growth (2013-2015)
Number of banks	126	133	134	6.35%
Amount of loans outstanding (in million pesos)	PhP17,356.07	PhP22,445.41	PhP27,468.14	58.26%
Number of borrowers	2,485,834	2,967,446	3,692,117	48.53%
Savings Component (in million pesos)	PhP7,578.62	PhP9,749.08	PhP12,001.63	58.36%

Source: Inclusive Finance Advocacy Staff, Bangko Sentral ng Pilipinas (RSET 2016)

Table 15.20 Number of Registered Cooperatives per Year/Type, 2009-2015

TYPE	2009-2011	2012	2013	2014	2015	TOTAL
Advocacy	1		3	1		5
Agrarian	5	1	1	2	1	10
Agriculture					2	2
Consumers	80	39	25	22	24	190
Coopbank	5					5
Credit	266	48	26	29	20	389
Dairy	1	2			1	4
Federation	23			1		24
Fishermen	2	1		1	3	7
Health	3			1		4
Housing	1	1	1			3
Labor	13		1	3	2	19
Marketing	92	26	14	4	19	155
Multipurpose	1,725	24	26	39	19	1,833
Producers	85	18	14	22	29	168

TYPE	2009-2011	2012	2013	2014	2015	TOTAL
Service	107	4	1	3	2	117
Transport	21	11	6	15	7	60
Union	7		2		1	10
Water	6	1		2	1	10
Worker	10	1			1	12
Total	2,453	177	120	145	132	3,027

Source: CDA-Calamba Extension Office

Total cooperative assets in the region grew by 12 percent from PhP23.364 billion in 2014 to PhP26.187 billion in 2015 (Table 15.21).

The role of microfinance institutions and cooperatives is to serve as viable alternatives of financing among the rural and marginalized sectors when formal banking is not accessible. The major challenge is to provide necessary and efficient financing options and sustaining such services. Policy adjustment in terms of requirements for loan availment for all financial institutions is also a challenge. The limited budget of the Cooperative Development Authority Region IV-A to implement regulatory and developmental programs/projects for cooperatives should also be considered.

Local Government Resource Mobilization

LGUs are mandated to conceptualize and implement development initiatives at the local level. Upgrading their income levels and to have more revenue channels aside from internal revenue allotment is needed to ensure more funds for economic development.

The actual revenue collections of LGUs showed an increasing trend from 2013 to

2015 (Table 15.22). In 2015, real property tax (RPT) collection increased by 13 percent, business tax collection increased by seven percent, and collection on economic enterprises increased by six percent. Although collection from fees and charges decreased by one percent in 2015 from its 2014 collection, it was still above target. As shown in Table 15.23, RPT targets for 2013 and 2014 showed less than 100 percent attainment versus actual collections in comparison with other revenue types. In 2015 RPT collections surpassed its target by PHP12.46 million attaining 101 percent in actual collections.

The general increase in collections could be attributed to the strengthening and implementation of Business Permits and Licensing System. Other facilitating factors were the updating of local revenue code, which includes the collection of local taxes, good maintenance of records by the LGUs, conduct of examination of revenue, collections from delinquent taxpayers and improved business processes. LGUs face the challenge of improving tax collection and generating other sources of income.

Table 15.21 Total Cooperative Assets Based on Encoded AFS (in billion pesos)

YEAR	AMOUNT
2012	19.596
2013	no data available
2014	23.364
2015	26.187
'14-'15 % increase	12

Source: CDA-Calamba Extension Office

Table 15.22 Revenue Type, Actual Collections, Calabarzon, 2013-2015 (in million pesos)

REVENUE TYPE	2013 ACTUAL (MILLION)	2014 ACTUAL (MILLION)	2013-2014 % CHANGE	2015 ACTUAL (MILLION)	2014-2015 % CHANGE
Real Property Tax	9,674.85	10,993.41	14%	12,462.78	13%
Business Tax	7,756.10	9,006.70	16%	9,673.99	7%
Fees and Charges	2,692.03	3,319.88	23%	3,300.27	(1%)
Economic Enterprises	1,699.32	1,913.88	13%	2,019.95	6%

Source: Bureau of Local Government Finance – Calabarzon

Table 15.23 Revenue Type, Targets, Accomplishments, Calabarzon, 2013-2015 (in million pesos)

REVENUE TYPE	2013			2014			2015		
	TARGET (MILLION)	ACTUAL (MILLION)	% ATTAINED	TARGET (MILLION)	ACTUAL (MILLION)	% ATTAINED	TARGET (MILLION)	ACTUAL (MILLION)	% ATTAINED
Real Property Tax	11,369.09	9,674.85	85%	11,621.35	10,993.41	95%	12,397.79	12,462.78	101%
Business Tax	5,945.20	7,756.10	130%	8,257.79	9,006.70	109%	9,289.19	9,673.99	104%
Fees and Charges	2,371.44	2,692.03	114%	2,546.95	3,319.88	130%	3,077.27	3,300.27	107%
Economic Enterprises	1,453.59	1,699.32	117%	1,848.76	1,913.88	104%	1,976.13	2,019.95	102%

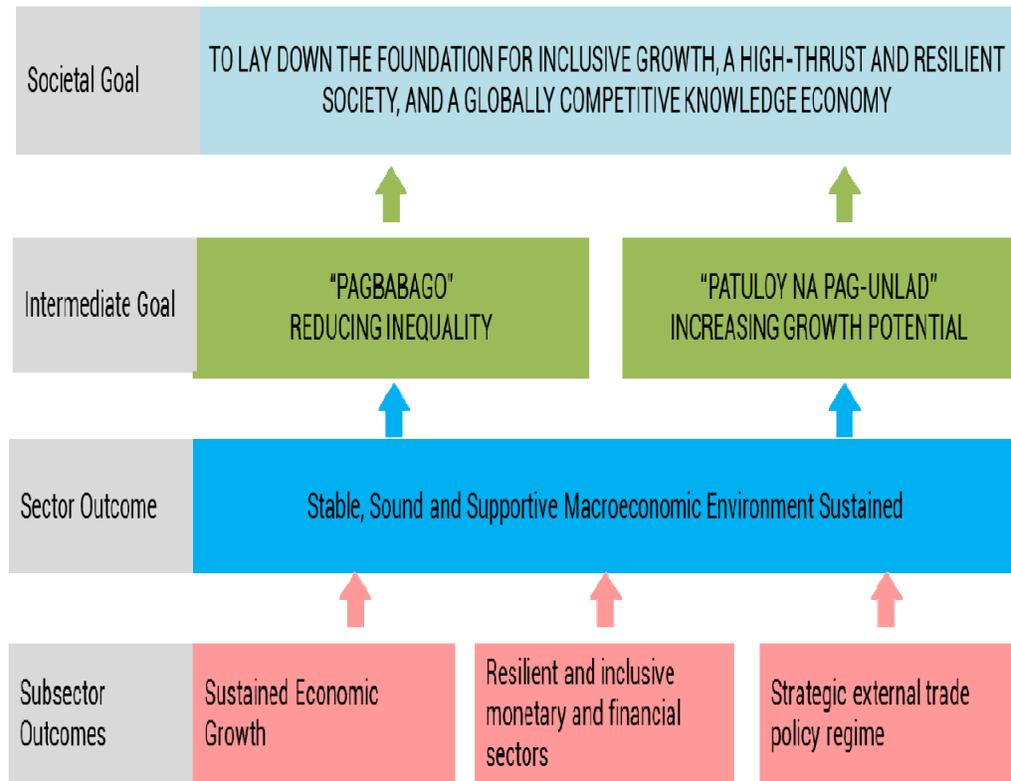
Source: Bureau of Local Government Finance – Calabarzon

Strategic Framework

By 2022, the region aims to sustain a stable, resilient and inclusive monetary and financial sectors; and c) strategic external trade policy regime.

sound and supportive macroeconomic environment by: a) sustained economic growth and supportive fiscal sector; b)

Figure 15.2 Strategic Framework to Ensure Sound Macroeconomic Policy



Targets

Table 15.24 Plan Targets for Ensuring Sound Macroeconomic Policy, 2017-2022

INDICATOR	BASELINE YEAR	TARGETS						END OF PLAN TARGET	RESPONSIBLE AGENCY
	2015	2016**	2017	2018	2019	2020	2021	2022	
Sector Outcome 1: Sustained Economic Growth and supportive fiscal sector									
GRDP growth rates increased (%)	5.8*	4.8	5.2-6.8	5.3-7.1	5.5-7.2	5.7-7.2	5.9-7.2	6.0-7.3	PSA
Agricultures and fisheries growth rates increased (%)	2.6	3.4	2.0-3.5	2.2-3.7	2.3-3.8	2.5-4.0	2.6-4.2	2.8-4.5	
Industry growth rates increased (%)	5.7*	3.7	5.0-7.0	5.2-7.0	5.4-7.1	5.6-7.1	5.8-7.1	6.0-7.2	
Services growth rates increased (%)	6.7*	7.2	6.0-7.6	6.1-7.7	6.2-7.8	6.3-7.8	6.4-7.9	6.5-8.0	
Poverty incidence by population reduced (%)	9.1	Decreasing	8.4	8.0	7.0	6.5	6.0	5.5	
Poverty incidence among families reduced (%)	6.7	Decreasing	6.2	5.9	5.1	4.7	4.4	4.0	
Employment level - generation increased ('000) / job requirement	-	Increasing	PSA - level/DOLE - generation						
Unemployment rate kept within of 7-9% maintained	8%	7-9%	7-9%	7-9%	7-9%	7-9%	7-9%	7-9%	PSA
Underemployment rate of less than 17.5% achieved	18.2%	18.0%	17.5%	17.0%	16.5%	16.0%	15.5%	15.0%	PSA
inflation rate maintained below 5% achieved	0.9%	↓5%	↓5%	↓5%	↓5%	↓5%	↓5%	↓5%	PSA
Local source of LGU Income share in total current operating income (from PDP)	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	To be determined	BLGF
Sector Outcome 2: Resilient and inclusive monetary and financial sectors									
Financial (Bank) System total assets growth rate	32.0%	Increasing	BSP						

INDICATOR	BASELINE YEAR	TARGETS						END OF PLAN TARGET	RESPONSIBLE AGENCY
Gross Regional Saving to GRDP ratio increased	-	Increasing % of GRDP	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	BSP
Number of deposit accounts increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	BSP
Total number of credit cooperatives & cooperatives engaged in credit & financing increased	37	29	28	27	26	26	25	24	CDA
No. of registered cooperatives increased	130	102	98	96	92	90	88	86	CDA
Total cooperative assets increased (in billion pesos)	23.36	22.95	24.11	25.26	26.35	27.4	28.4	29.49	CDA

Sector Outcome 3: Strategic external trade policy regime – (refer to Market Access Improved of Chapter 9 – Expand Economic Opportunities in Industry and Services

**Adjusted growth rates per PSA 2016 GRDP release on 4 May 2017*

***GRDP, AFF, Industry, and Services growth rate based on official PSA data released on 4 May 2017; growth for other indicators are projected/targeted*

Strategies

Strategic interventions are identified to address each of the challenges.

1. *Challenge of Balancing Opportunities.* There is a need to create economic opportunities to the areas and sectors that are lagging. The following are the strategies to address this challenge:

- accelerate transformation of farmers and fisherfolk as entrepreneurs by encouraging farmers and fishermen to establish cooperatives
- provide farmers and fisherfolk affordable and easy access to formal financing
- provide alternative source of income to fishermen and farmers through skills development
- provide employment opportunity to the vulnerable sectors such as senior citizens, PWDs and IPs
- do urban renewal and redevelopment of areas that have significant potential for development
- encourage establishment of industry and services businesses in the Province of Quezon

2. *Challenge of Conversion of Agricultural Lands.* This challenge results to decrease of agricultural lands and production. The following are the strategies to address this challenge:

- pursue strict implementation of agrarian reform to reduce the existence of hacienda system
- monitor and control land conversion

- revisit LGU land reclassification process

3. *Challenge of Vulnerability to Climatic Conditions.* This challenge reflects the impact of severe weather risks and the periodic occurrence of the El Niño and La Niña phenomena to the economy specifically to the areas dependent on the agricultural sector. The following are the strategies to address this challenge:

- mainstream natural hazards and climate risk in the agricultural land use plan or the Comprehensive Land Use Plan
- strengthen the capacity of communities to respond effectively to climate risks and natural hazards
- promote integrated farming systems such as intercropping, livestock-crops, drops-livestock-aquaculture to maximize use of land

4. *Challenge of Globalization/ Competition in the ASEAN Market/ Competition with Other Regions.* Competition encourages economic growth and Calabarzon do not only compete based on global and ASEAN standards but also with the economic performance of other regions. The following are the strategies to address this challenge:

a. *Produce Quality Products and Services.* Quality Products means providing the desirable characteristics and features to satisfy customer's needs. This could be attained through:

- ensuring compliance of agri-based products with global standards and certifications

- strengthening the existing programs of DOST and DTI such as conduct of trainings on marketing, supporting agricultural input and other local goods and enhancement of local goods
- promoting the value-adding of agricultural products by encouraging innovations to improve agricultural products such as the modernization of agricultural facilities and the development of technologies
- providing capacity-building activities on value-adding such as processing, packaging and marketing, technology adoption and compliance with product standards and certification
- legislating a regulation of priority agricultural products to address the issue where the import products are cheaper than local products
- developing a brand by integrating and promoting Filipino identity and cultural development

b. *Produce Competitive Workforce.*

Competitive workforce means developing and producing skilled, knowledgeable and adaptable to change labor force. This could be attained through:

- provision of quality and accessible education for all
- strengthening the existing programs of TESDA and CHED
- enhancing the educational system, including the school's curriculum
- improving educator's competence
- strengthening skills upgrading
- strengthening accreditation of academe and training centers

c. *Limited interconnectivity of rural and urban areas and ease of doing business.*

Infrastructure development affects the economic activities of the region; hence, there is a need to benefit from its strategic location that serves as the gateway from the south. The following are the strategies to address this challenge:

- solve the existing traffic issues in the region through strict implementation of existing traffic rules/laws
- conduct of strict implementation of infrastructure quality standards
- develop inter-regional connectivity projects such as modernization of railway system, road construction and rehabilitation, expansion of seaports and development of airports
- recommend legislative policy on subway system
- link existing roadways, ports and airports to improve regional, international, and global competitiveness
- creation of interagency committee to have a holistic approach in addressing the issue.

5. *Challenge of High Unemployment and Underemployment.*

Increase in labor force participation coupled with the quality human resource and appropriate interventions will contribute toward maximizing the economic development opportunity in the region. The following are the strategies to address this challenge:

- address job mismatch through strengthening of Academe-Industry Linkages

- strengthen existing programs of DOLE on conduct of job fairs and local recruitment activities
 - implementation of CHED moratorium on the control of enrolees in populated courses
 - provision of LGU scholarship for priority courses
 - implement policies that will help contribute to the attainment of higher productivity in employment, especially of the vulnerable sectors such as Domestic Workers Act (RA 10361), Expanded Anti-Trafficking in Persons Act (RA 10364), An Act Repealing the Crime of Premature Marriage under Article 351 of the Revised Penal Code (RA 10655), RA 10151 or An Act Allowing the Employment of Night Workers and the No endo policy.
 - increased access in basic education and K to 12 facilities as well as smoothly implement basic education services to achieve quality basic education for all
 - strengthened opportunities and valuing potential of culture and arts for development
 - promote investment opportunities
6. *Challenge of Migration.* The region aims to generate migration data to be accessible online and maximize the OFs capability. The following are the strategies to address this challenge:
- enjoin the LGUs to generate data on migration through a legislative policy.
 - SUCs will also be partnered in the conduct of surveys
- strengthening the promotion of one-stop migration centers
 - encourage the OFs to save and invest
 - availability of investment portfolio and business opportunities packages
7. *Challenge of Maintaining Stable Inflation Rate.* The region aims to maintain low and stable inflation rate. The following are the strategies to address this challenge:
- support and strengthen the implementation of government programs such as the Philippine Rural Development Program (PRDP) to improve livelihood and income
 - maximization on the use of food terminal in Batangas port to improve the convenience of transporting goods
 - encourage fair competition in the industry
8. *Challenge of Inadequate Increase in the Minimum Wage Adjustments.* One challenge identified on the existence of poverty incidence in the region is the inadequate increase in the minimum wage adjustments. The following are the strategies to address this challenge:
- reduce the wage gap and promote common wage among workforce in all sectors without sacrificing the capability and resources of the private institutions
 - enactment of appropriate laws to formulate scheduled annual increase in the private sector like the salary scheduled in the government sector. This will allow the management of the business industry to project their income and unburdened

them from releasing a big amount of salary increased in just one payment.

9. *Challenge of Reluctance to Invest*

Investors are still reluctant to invest in the region due to ease of doing business. The following are the strategies to address this challenge:

- streamline the government processes in accordance with the Anti-Red Tape Act (ARTA)
- strengthen effective and efficient delivery of public goods and services
- build positive public perception of the bureaucracy
- ensures the public for a more transparent government transactions and spending

10. *Challenge of Low Utilization of Funds.* Low utilization of funds of the National Agencies and LGUs is another challenge faced by the government. The following are the strategies to address this challenge:

- promote increase of utilization rate through effective and efficient implementation of government projects
- enjoin maximizing the use of budget
- strengthen the 0-based budgeting
- amend the Government Procurement Reform Act (RA 9184)

Addressing the challenges among the various financial systems will result to achieving a resilient and inclusive monetary and financial sector. The following strategies shall be pursued: a) efficiently mobilize financial resources; b) improve financial inclusion mechanism; and c) strengthen and

improve enabling environment for the financial system.

1. *Efficiently mobilize financial resources*

- Review current relevant financial regulations to determine the viability of easing caps/limits on savings instruments for deployment to local and international investment opportunities matched with safeguard mechanisms
- Implement policy and operational mechanisms that will channel remittances to savings instruments such as pension funds, among others
- Support mechanisms that will tap OFs' remittances into local economic development such as agri-based enterprises and eco-tourism activities
- Provide and support menu of investment opportunities to OFs such as bonds, unit investment trust funds, mutual funds, insurances, real estate, and other investment packages of vetted banks and cooperatives
- Provide incentives like tax exemption to cooperatives to attract more investors

2. *Enhance and strengthen LGU resource mobilization in the region*

- Improve processes like the Business Processing and Licensing System to reduce cost of doing business
- Update local revenue code and implement strict compliance to local finance circulars to increase collection
- Improve absorptive capacity of the agencies and LGUs through continuous capability building and financial education

and use of modern technology to facilitate business transactions

- Implement capacity-building efforts and technical assistance to enable LGUs to find other channels of revenue aside from internal revenue allotment

3. *Improve financial inclusion mechanism*

- Continue to build, strengthen, and establish financial systems and institutions in the region to create more financial access points that deliver financial services at an affordable cost to all segments of society
- Promote programs and projects like the Credit Surety Fund Program which aims to increase credit worthiness of MSMEs
- Implement policy adjustments to provide ease of access to financial services and enable the marginalized sectors and MSMEs in participating in capital markets and expanding their businesses
- Provide low interest rates on financing
- Promote savings generation at the regional and local levels and develop enabling environment for long term savings
- Promote and intensify micro-insurance and micro-lending services to improve resiliency of rural and urban communities to economic shocks and emergencies
- Intensify and broaden collaboration with OF communities, both local and abroad, to promote investment opportunities in the region's value-added enterprise ventures, real estate and housing, business

processes outsourcing, and other promising/sunshine industries

- Sustain and accelerate the conduct of investment missions abroad targeting OF communities as well as foreign business organizations such as chambers of commerce and industry
- Implement parallel initiatives on information and education campaign targeting LGUs and cooperatives to intensify and sustain financial learning programs that address the need for financial education and literacy
- Enhance roles of cooperatives not only as target of information and education campaigns on investment but also as providers of investment packages
- Provide technical assistance and conduct of capability trainings and seminars to sustain and strengthen microfinance services operations. Given the limitation on the basis of total OFs per region, there is a need to:
 - Advocate for disaggregation of OFs remittances into regional and provincial level
 - Develop and sustain a database management system inclusive of all types of OFs through the collaboration of the concerned agencies

4. *Strengthen and improve enabling environment for the financial system*

- Create a clear, long term and coherent policy and regulatory financial framework underpinned by the rule of law

- Strengthen the tracking of financial climate through comprehensive approach towards transparency and consistency of policies
- Enforcement of policy and pricing incentives as well as to formulate commercially attractive deals for diversified investment portfolios to lessen barriers to investment
- Engage stakeholders in design and implementation of policy instruments as risk sharing mechanism
- Sustain investments in human, institutional and technical capacities to use finance more effectively

16

Leveling the
Playing Field

Leveling the Playing Field

The region, tagged as the industrial powerhouse of the country for having the highest industry output and the second biggest contributor to the national economy offers tremendous opportunities for development. However, its potential to be the leading economic growth area is hampered by the competitiveness of the firms and the various localities in the region as investment destinations. Thus, improving the investment climate in the region is a major strategy to attract new investors as well as to encourage business establishments to expand their businesses for market to function and thereby contributing to the economic development of the region.

An important step towards improving the investment climate of the region is creating a level playing field. The region shall benefit from the enactment of Republic Act (RA) No. 10667 or the Philippine Competition Act (PCA) that provides for the formulation of a National Competition Policy (NCP) that aims to steer regulations and administrative procedures of government agencies toward promoting competition, as well as to strengthen the enforcement of anti-trust laws and effectively ensure competitive neutrality.

Market competition drives firms to perform at their best by producing high quality goods and services at the lowest costs and cheapest price. It encourages entrepreneurial activity, entry of new firms and supports the growth of smaller companies besides larger market players. In the process, competition raises productivity, expands economic opportunities, increases real income, and improves overall welfare. Competition is socially beneficial and promotes inclusive economic growth and benefits the poor through job creation and lower prices of a wide range of high quality commodities.

However, market failures such as imperfect information, poor regulation and anti-competitive practices of existing firms to control a dominant market share prevent markets from being competitive. Thus, a competition law and policy is a vital tool to ensure the existence of an enabling environment for a working market competition and to achieve competitiveness in a global and knowledge-intensive world economy.

The essential components of the NCP include competitive neutrality; consumer protection; government regulations that do not impede competition; removal of structural barriers; and establishment of an institutional national and subnational mechanism to coordinate and oversee the implementation of the policy.

Assessment and Challenges

Competition Environment

The Philippine competition environment remains weak as shown by the country's low ranking in the Global Competitiveness Index in 2016 that highlights the need to further improve business dynamism, product market efficiency and market size. Among the nine ASEAN member states, the Philippines is at the bottom in CGI's product market efficiency. Under this pillar, the country is at the median ranking in terms of local competition and one of the lowest in terms of number of procedures and amount of time to start a business, and effectiveness of anti-monopoly policy

The Philippine Competition Act (PCA) seeks to enhance economic efficiency, penalize all forms of anti-competitive practices and establish a National Competition Policy (NCP). To implement the NCP, the Philippine Competition Commission was established.

Despite the passage of the PCA, fragmented and decentralized regulatory functions pose threats to competition. The devolved services, regulatory functions and corporate powers given to local governments by virtue of RA 7160 or the Local Government Code of 1991 can have negative impacts on market efficiency and competition. For example, LGUs have full autonomy to manage economic enterprises, enter into contracts and have cooperative undertakings with other local governments.

In 2016, the National Competitiveness Council (NCC) launched Project Repeal which aims to identify and downsize legislation and regulations that are no longer necessary, impede business operations, increase cost of doing business, and eventually lessen competition.

A business friendly environment and reliable support infrastructure in cities and municipalities will attract entry of more market players bringing in more investments that will support market efficiency. Thus, competitive local governments can help promote a working market competition that can improve the quality of public and private goods and services that will benefit consumers.

The NCC has also initiated the Cities and Municipalities and Competitiveness Index (CMCI) to rank the competitiveness of cities, municipalities and provinces based on their economic dynamism, government efficiency, infrastructure facilities and resiliency. These indicators are based on global competitiveness standards with the end in view on improving national competitiveness when the indicators are adopted at the local level.

The NCC awards the most competitive local government units annually who participated in the CMCI survey. Calabarzon LGUs have been included in top rankings since the start of the CMCI survey. During the 2016 awarding ceremonies, Calabarzon bagged the most awarded Region in the CMCI. The province of Rizal and Cavite were awarded

as the most competitive provinces in the country while Cainta, Rizal and Infanta, Quezon were the most competitive municipalities under the 1st and 2nd class municipalities category, and 3rd-6th class municipalities category respectively. Taytay, Cavite and General Trias, Cavite was the 2nd and 3rd most competitive municipalities under the 1st and 2nd class municipalities category.

Despite these recognitions, the CMCI has not been adopted by all local governments in the region. Through the Regional Competitiveness Committee under the RCC, orientations for local governments on the CMCI are continuously being conducted.

Market players in the Regional Economy

Manufacturing is the main economic driver of the region and is considered as the automotive hub of the country with major car manufacturing firms located in the region. As of December 2016, Calabarzon has 53 operating economic zones with a total of 1,781 locators, majority (35) of which are manufacturing special economic zones (*Chapter 9*).

In terms of exports of industries located in economic zones, the rate of increase hardly

rose from 2013 to 2015. In the same manner, domestic sales from DTI-assisted MSMEs were generally increasing but the rate of growth was decelerating (*Chapter 9*). As provided by law, economic zone developers, locators and PEZA locators are given generous and even multiple tax incentives in order to attract investments. In the case of Calabarzon, only a limited number of companies control the biggest share in manufacturing output which is mainly directed for exports. These big players limit market competition not only in the manufacturing subsector but also in the services sector, particularly in the IT, transportation, and communication subsectors.

Geographic separation of some remote areas in the region, e.g. hard to reach mountainous areas and distant islands, also creates natural barriers to competition that limits the number of market players and can result to high prices, poor service or creation of artificial markets. For example, the transport cost of quarry materials for construction from areas such as Quezon and Rizal significantly affects the product costs to the market. Stronger government regulatory presence in these areas and improved infrastructure are needed to ensure that prices are kept stable and new market players are unrestricted.

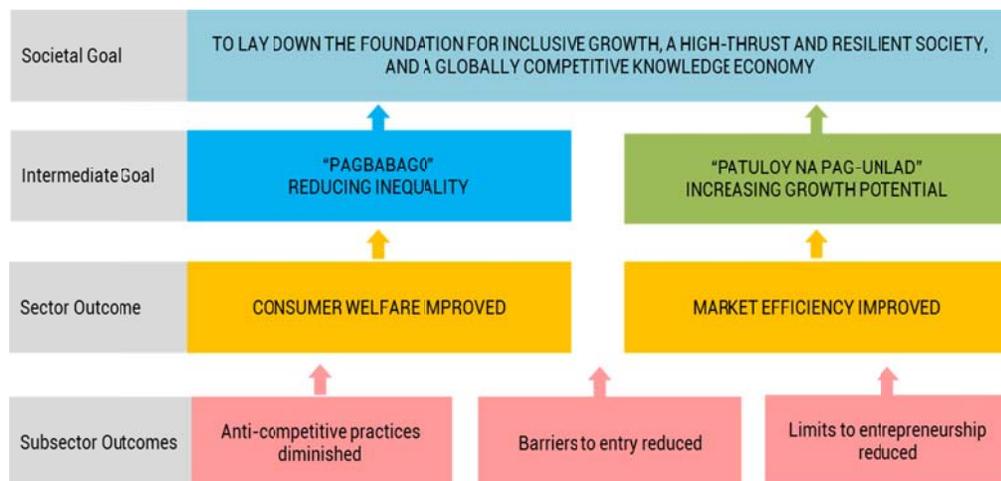
Strategic Framework

The region will support, to the extent possible, the implementation of the National Competition Policy which aims to improve market efficiency and consumer welfare. Competition will allow

MSMEs to play an active role in the market in support to larger firms or as competitors, promote efficiency, expand economic opportunities through the creation of jobs, and stimulate economic

growth. This will be achieved through:
 a) diminishing anti-competitive practices;
 b) reducing barriers to entry; and
 c) reducing limits to entrepreneurship to allow micro, small, and medium enterprises to thrive.

Figure 16.1 Strategic Framework for Leveling the Playing Field



Strategies

The priority strategies will be pursued:

Review potentially anti-competitive local legislations and policies that may substantially prevent, restrict, or lessen competition. RA 7160 empowers local authorities to enact laws. Some LGUs have passed local ordinances to protect their local business establishments that tend to discourage the participation of new players or even existing firms to expand their business establishments. The local development and legislative councils shall be capacitated to be able to determine policies that might discourage competition at the local level.

The scope of Project Repeal will be expanded to include local government units in the region. The project initially started with a review of department orders

issued by Cabinet Departments which are DTI, DOF, DOE, DBM, DOT, DOLE, Securities and Exchange Commission (SEC), and LTFRB, among others. The next phase of the project will be expanded to cover ordinances of local governments that may be redundant and cause additional burden for businesses and entrepreneurs. Thus, at the regional level, local governments, especially cities and major urban centers, are enjoined to assist NCC by identifying and submitting ordinances for streamlining. To facilitate cooperation, DILG can issue a memorandum to local governments to participate in the project. The Project can also be facilitated through and promoted by the Regional Competitiveness Committee.

Given the declining export production, changing global market, and weak link of MSMEs to multi-national and big

companies, there is a need to review laws such as the Republic Act No. 7916 or The Special Economic Zone Act of 1995 that give incentives and advantage to enterprises located in special economic zones.

Analyze competition issues in priority sectors. Although the strategy is national in scope, the RDC will support the conduct of studies and problem-solving sessions to discuss and recommend solutions for uncompetitive practices and behavior of businesses in the region.

With guidance from the national market scoping study, the region can conduct local competition studies on priority sectors where competition issues have the largest impact on consumer welfare and market efficiency. The Preliminary Studies on Priority Industries in Calabarzon, which will localize the national industry roadmaps on automotive, electronics, IT-BPM, petrochemicals and metals, can serve as input to detailed competition studies since these preliminary studies would also look at the industry's market. From these five industries, all except for the metals industry are dominated by large companies (*Chapter 9*).

As stated in the PDP Chapter on National Competition Policy, resolving market competition issues in agriculture, particularly on production inputs, and on telecommunications and power services will be prioritized.

Investigate conduct and agreements that may substantially prevent, restrict, or lessen competition. The region will participate and provide pertinent information to

the Philippine Competition Commission's investigation of potentially anti-competitive behavior of firms in the region, if any. The results of these investigations will be helpful for policymakers in understanding the impacts of competition issues, the potential benefits of pushing for a more level playing field among firms, and to decide on policies to improve local market competition and efficiency.

Promote competition-related policies and best practices. A culture of strong competition in the region will be promoted through concerted efforts from regional line agencies, GOCCs, local governments and the private sector and coordination with relevant national competition agencies and bodies.

The region will support the full implementation of the MSME Development Plan 2017-2022 (*Chapter 9*). The plan will enhance MSMEs' productivity and competitiveness to develop and strengthen value and supply chain linkage with globally competitive industries such as electronics, automotive and petrochemicals thus allowing for MSME's greater participation in the national and even international markets. Development and expansion of SMEs will also be supported through financing programs, research and development and technology adoption. Activities on increasing consumer rights awareness will be conducted (*Chapter 9*) and on raising consumer knowledge to better understand product labels and service terms for them to be able to make informed purchases.

Regional competitiveness will be pursued to ensure that the right conditions for a working competitive market are provided. These include: a) cascading of efforts of the Regional Competitiveness Committee to the provincial level, city and municipal level through the adoption of the CMCI; b) improved physical and technological infrastructure; c) human resource development on education, and d) research and development through academe and business development centers to support innovation.

Conduct capacity-building activities for government agencies and other institutions. To develop a good working knowledge on the Philippine Competition Act and competition economics, capability-training activities among involved regional government agencies, local governments and the private sector and other stakeholders is crucial for its effective implementation. Given that market competition is a relatively new and unknown concept in the country, trainings and seminars or orientations must be timely and adequately provided especially to those mandated or involved agencies and bodies at the sub-national and local levels to promote market competition.

Institutionalize a mechanism for implementing the NCP. A whole-of-government approach to regulatory reform, including regional line agencies and local governments, will be implemented to: reduce redundant and costly regulations; ensure that no anti-competitive policies and practices are passed and tolerated and; institutionalize transparency in regulatory management processes.

The regional line agencies of NEDA, DTI and DOJ will coordinate with their central offices which will serve as the oversight and coordinating mechanism for the National Competitiveness Policy.

Adopt convergence approach to address natural barriers to competition. Convergence approach will be pursued to address the development constraints, especially among the geographically isolated and depressed areas (GIDAs). Infrastructure support, especially on ICT, transportation, among others, will be prioritized in the GIDAs.

PART VI

FOUNDATIONS FOR SUSTAINABLE DEVELOPMENT



17 Attaining Just and Lasting Peace

Attaining Just and Lasting Peace

This chapter discusses the extent of the effect of internal conflict in the region. With the goal of attaining just and lasting peace, it outlines the factors that cause the existence of insurgency, as well as the strategies and interventions that promote peace and address root causes of these conflicts.

Assessment and Challenges

The region is still affected by internal conflict. Thick vegetated areas can conceal insurgents; that is why the region's mountainous peaks are generally favorable for these revolutionaries. Taking advantage of the region's boundaries adjacent to other regions, rebel groups cross regional boundaries to bypass military operations.

Rebel groups were found in the 4th District of Quezon including Tagkawayan, 28 barangays of Guinayangan and 8 barangays of Upper Calauag. The Office of the Presidential Adviser for Peace Process (OPAPP) has also identified the municipalities of Catanauan, Mulanay, Buenavista, San Narciso and San Francisco as affected by and vulnerable to conflict. These municipalities are being used by insurgents as their mobility corridor and safe haven during the combat operations of government forces in Labo, Camarines Norte and in first district of Camarines Sur.

It has been observed that conflict-affected areas in the region are contiguous municipalities at the southern tip of

Quezon province which, based on the 2012 Small Area Poverty Estimates, have poverty incidence greater than 20 percent. Delivery of government services in conflict-affected areas is not enough due to poor road network conditions and security issues. Bureaucratic-related issues also hamper the effective delivery of basic social services. Procurement issues such as lack of LGU counterpart fund is one of the challenges encountered by the Department of Social Welfare and Development (DSWD) Region IV-A in providing access to improved safe water supply to more households.

The lack of awareness of the populace on land issues and the insufficient delivery of basic services are the main reasons why insurgency exists in the area. Vast agricultural lands in Quezon-Bicol Zone are still owned by landlords. This is being exploited by rebel groups to gain support from local farmers. Insurgents grab agricultural land from land owners and give it to its tenants; through this, the "Utang na Loob" system is established between insurgents and locals in the area.

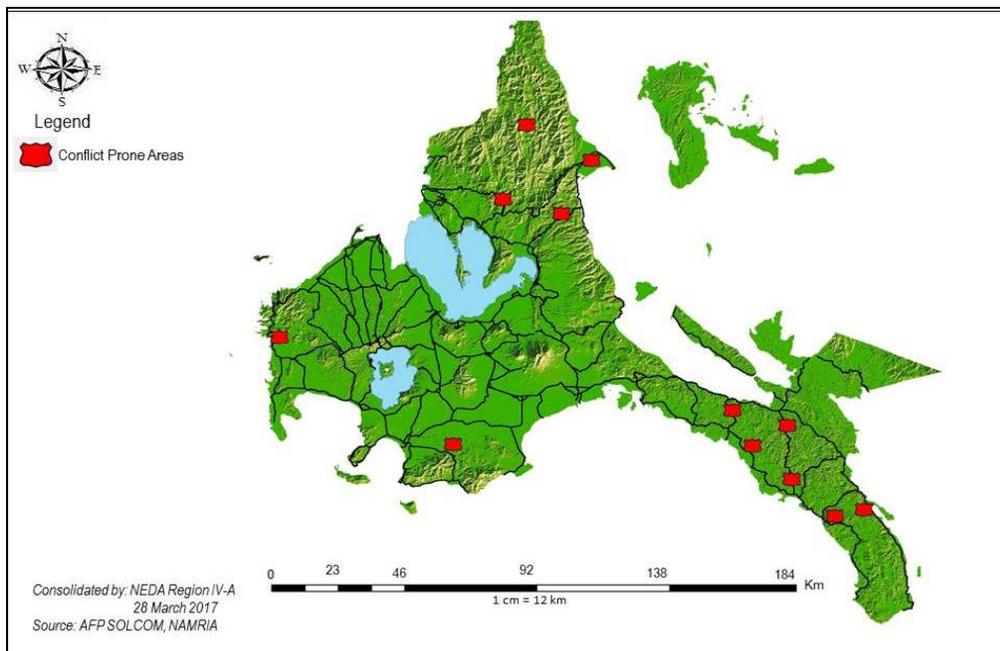
Being an industrial region, Calabarzon is also susceptible to internal conflict. Labor disputes could result in insurgency when rebel groups intervene on behalf of the labor sector.

Over the years there have been improvements on the peace situation of the region, OPPAP reported 39 former rebels enrolled in the Payapa at Masaganang Pamayanan (PAMANA) program, a 34 percent increase from 29 former rebels reported in 2013. PAMANA is a program for peace-building that is offered to conflict-affected areas to improve their quality of life. The decrease could be attributed also to the effective implementation of the Comprehensive Local Integration Program (CLIP), a national reintegration program for rebels

aimed at achieving peaceful and permanent closure of all armed conflict with non-state groups.

Moreover, with the memorandum of undertaking signed by Quezon Province Governor, David C. Suarez, BGen Amador Tabuga Jr. representing MGen Romeo G. Gan of the Armed Forces of the Philippines and Police Chief Superintendent Valfrid G. Tabian, Acting Regional Director PNP (Philippine National Police) Region IV-A on 8 September 2016, Quezon was declared as Conflict Manageable and Ready for Further Development. This is a major accomplishment that would promote peace and development in some areas of the province that have long been troubled by insurgencies.

Figure 17.1 Conflict-prone Areas in Calabarzon, 2017



Strategic Framework

The subsector outcome of “Attaining Just and Lasting Peace” was patterned from the PDP 2017-2022. Two intermediate outcomes were identified: the first outcome aims to have peace agreements with all internal armed conflict groups

successfully negotiated and implemented, while the second outcome focuses on protecting and developing communities in conflict-affected and conflict-vulnerable communities.

Figure 17.2 Strategic Framework for Attaining Just and Lasting Peace

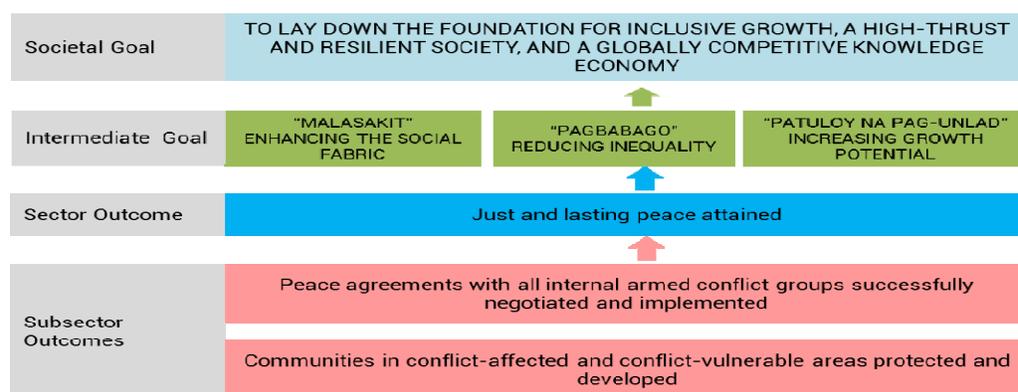


Table 17.1 Plan Targets to Attain Just and Lasting Peace

INDICATORS/	BASELINE 2015	END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
Net enrolment rate in primary education increased (in conflict-affected areas)	98.1%	Increasing	DepEd, OPAPP
Net enrolment rate in secondary education increased (in conflict-affected areas)	87.7%	Increasing	DepEd, OPAPP
Percentage of HH with access to improved safe water supply increased (in conflict-affected areas)	90%	Increasing	DSWD, DILG, DOH, LGUs, OPAPP
Armed encounters in the region between Philippine government and CPP/NPA/NDF significantly decreased	-	Decreasing	AFP
Percentage of former rebels (FR) and their families who are enrolled in reintegration programs are mainstreamed as productive and peaceful members of their communities	39 FR	Increasing	OPAPP, DILG, AFP, DENR, DSWD, PHIC, CHED, LGUs
Percentage of provinces with communities affected by and vulnerable to armed conflict equipped with tools and processes for conflict-sensitive, peace-promoting and gender-responsive planning and programming increased	100%	100%	OPAPP, DILG, LGU
Number of conflict-affected barangays decreased	3	0	OPAPP

Strategies

To support these outcomes, the following priority strategies will be implemented:

A. Peace agreements with all internal armed conflict groups successfully negotiated and implemented

- *Settlement with all internal armed-conflicts.* The region will support the

effort of the national government in pursuing and accelerating the signing of peace agreements with the CPP/NPA/NDF and other rebel groups in order to attain just and lasting peace.

- *Completion of the Comprehensive Agrarian Reform Program (CARP).* On land issues, the Comprehensive Agrarian Reform Program has to be fully completed in order to put an end to land ownership conflicts.

B. Communities in conflict-affected and conflict-vulnerable areas protected and developed

The region will also address root causes of insecurity to avoid such issues being further exploited by rebel groups and also to solve the root causes of conflict.

- *Involve all stake holders from public and private sectors.* Delivery of basic services will be enhanced involving all stakeholders from public and private sectors.

- *Improve infrastructures to support accessibility of conflict-affected areas.* Poor farm-to-market road is one of the causes of insurgency. The populace experiences problem in transporting their agricultural products. Constructions of farm-to-market roads, bridges, and infrastructures connecting adjacent regions will be pursued to enhance economic activity in these areas.
- *Compliance to labor laws.* To promote industrial peace, the government will ensure that all businesses comply with labor laws.
- *Mainstreaming of peace education.* The lack of awareness of the populace in terms of land issues is one of the main reasons of conflict in the area. Mainstreaming of peace education and building a constituency supportive of the peace process with the Communists are seen as possible solutions to address this issue.

Major Programs and Projects

- Advocacy for peace agreements and peaceful settlements with all internal armed conflict groups
- Comprehensive Agrarian Reform Program
- Construction of access roads and farm-to-market roads in geographically isolated and disadvantaged areas
- Labor Laws Compliance System
- Incentives and awards to promote compliance among establishments
- Convergence programs for poverty alleviation such as the implementation of the poverty convergence plan for identified poverty convergence areas
- Massive information drive on peace and land issues in remote areas of Tagkawayan, Quezon
- Payapa at Masaganang Pamayanan
- Comprehensive Local Integration Program

18 Ensuring Regional Security, Public Order, and Safety

Ensuring Regional Security, Public Order, and Safety

This chapter assesses the security, public order and safety situation of the region. It provides strategies and interventions to ensure a desirable environment conducive to regional and national development.

Assessment and Challenges

Calabarzon has sustained a generally peaceful environment. The use of programmatic and sustainable approaches to combat criminality resulted in a notable decrease in crime incidence.

The total crime volume declined from 75,884 in 2014 to 64,463 in 2015, a 15.05 percent decrease. The crime incidents based on PNP blotter cases reported a total of 46,848 or 72.67 percent of the total crime volume. Of the crime volume 15,074 or 32.18 percent were index crimes while 31,774 or 67.82 percent were non-index crimes (Figure 18.2). Likewise, of the 46,848 crime incidents 24,381 were cleared, thereby attaining a 47.79 percent Crime Clearance Efficiency, which is a decrease of 11.23 percent from the recorded Crime Clearance Efficiency in 2014. Crime solution efficiency rate improved from 41.86 percent in 2013 to 48.89 percent in 2015.

The decrease in crime volume could be attributed to PNP's effort on crime prevention. About 789,906 police integrated patrols were mobilized as part of the intensified implementation of Police Integrated Patrol System. The implementation of *Oplan Katok* resulted in

a significant reduction of loose firearms, an increase in number of house visitation for unrenewed firearms, and an increase in the number of physically accounted unrenewed firearm licenses. The number of police assistance rendered to tourists had increased with the implementation of “Bantay Turista.” This program provided safer environment for tourists, contributing to the increase of tourist arrivals in the region.

In 2015, PNP (Philippine National Police) Region IV-A started the implementation of the *Oplan Lambat Sibato* as a tool to prevent and suppress crimes by fortifying its mobile patrol operations and going after the most wanted criminals. After its implementation in April 2015, PRO Calabarzon registered a reduction of crime incidents for the focused crimes, such as murder, homicide, theft, robbery, and carnapping of motor vehicles and motorcycles, from 2,774 in the 1st quarter of 2015 to 2,527 in the 2nd quarter of the same year. In the same period, PNP Region IV-A had arrested a total of 363 most wanted persons and 71 members of criminal gangs that are included in the priority target list.

The police to population ratio improved from 1:1199 in 2014 to 1:1134 in 2015. However, it is still far from the ideal ratio of 1:500.

Figure 18.1 Comparative Crime Volume, Calabarzon, 2014-2015

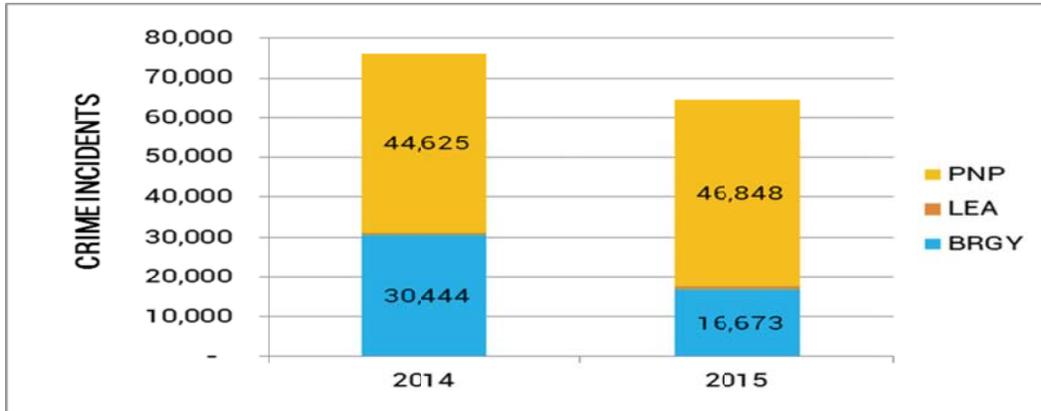


Figure 18.2 Crime Volume from PNP Blotter Calabarzon, 2015

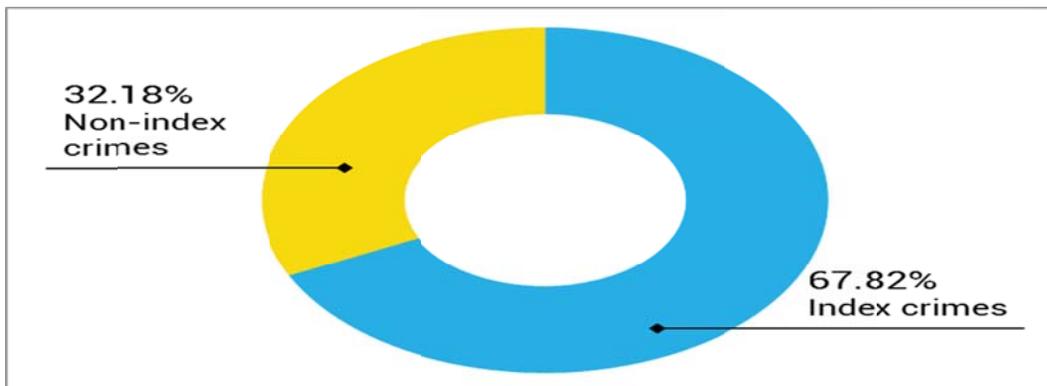
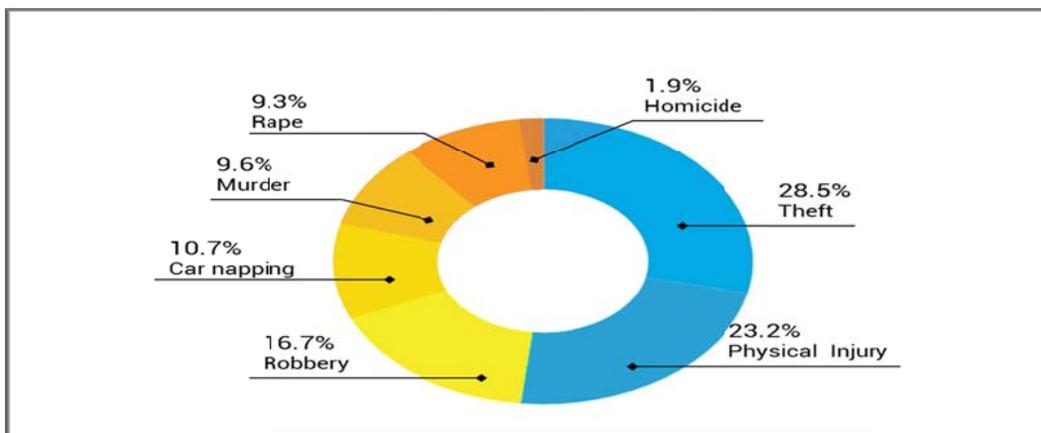


Figure 18.3 Distribution of Index Crimes from PNP Blotter, Calabarzon, 2015



Despite the improving peace and order situation in the region, the PNP has recently become the subject of public scrutiny by human rights advocates as allegations of extra judicial killings have been reported by the media. Thus, the PNP continues to investigate the causes of deaths related to illegal drugs.

Drugs Infiltration

Calabarzon is still facing the problem on illegal drugs. As of January 2016, the Calabarzon Regional Drug Situationer from the Philippine Drug Enforcement Agency (PDEA) reported that 2,025 out of 4,011 or 59 percent of barangays in Region IV-A were affected by illegal drugs.

PDEA Region IV-A certified six towns in Calabarzon as being “drug-cleared” as of November 2016, namely: San Luis in Batangas; Luisiana, Cavinti, and Magdalena in Laguna; and Plaridel and Pitogo in Quezon. This certification means that these municipalities complied with the requirements of the PDEA Regulatory Board, including the revitalization and activation of the Barangay Action Plan and Barangay Anti-Drug Abuse Council.

Disaster Risk Reduction Management

Disasters threaten peace and security as they affect the environment and the community. Disaster risks increased during the past years due to climate change while the severity and scale of disasters resulted to economic and social instability of the region. Infrastructures also pose as risks as some are not structurally sound or disaster resilient

making them more prone to damages and increased risk.

As a mitigating measure, the Regional Disaster Risk Reduction and Management Council has been actively promoting Disaster Risk Reduction Management (DRRM). In 2015, OCD was able to train 88,126 individuals on DRRM. All the local government units at the provincial, city, and municipality levels have completed their respective DRRM Plans.

Strategic Framework

Figure 18.4 Strategic Framework for Ensuring Regional Security, Public Order and Safety



In order to attain national security, public order, and safety, four intermediate outcomes will have to be realized: a) uphold and protect the territorial integrity and sovereignty of the country; b) reduce all forms of criminality; c) ensure public safety; and d) protect the welfare and well-being of all Filipinos overseas.

Targets

Table 18.1 Plan Targets to Ensure Regional Safety, Public Order and Safety

INDICATOR	BASELINE 2015	TARGETS						END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2016	2017	2018	2019	2020	2021		
Number of law enforcers recruited and trained increased	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	RP,HRDD, PRO
Index crime volume reduced	21,544	19,390 (<10% reduction in 2015)	18,421 (<5% reduction in 2016)	17,600 (<5% reduction in 2017)	16,720 (<5% reduction in 2018)	15,884 (<5% reduction in 2019)	15,090 (<5% reduction in 2020)	14,336 (<5% reduction in 2021)	RIDMD, PRO
Crime solution efficiency rate improved	48.89%	50%	55%	60%	65%	70%	75%	80%	RIDMD, PRO
Police to Citizen ratio increased	1:1222	1:1000	1:900	1:800	1:700	1:600	1:500	1:500	HRDD, PRO
Percentage of illegal drug-affected barangays decreased	49%	39%	29%	19%	9%	0%	0%	0%	PDEA, DILG

Strategies

The following strategies will be implemented to achieve these identified outcomes:

- *Support the national government in protecting territorial integrity and sovereignty.* The region will be supportive of government efforts to protect territorial integrity and sovereignty, especially in addressing the issue on the West Philippine Sea.
- *Take tough stance against criminality.* The priority of the incoming administration to decrease crime and corruption sets a high expectation to improve the public order and safety situation in Calabarzon. The PRO Calabarzon has taken a tough stance against criminality including illegal drugs, smuggling and kidnapping. Further, the Calabarzon Regional Development Council has already formed several adhoc committees to address the issue on drugs including the Regional Task Force on Drug Rehabilitation and the TWG on Anti-Illegal Drugs Campaign which created the Anti-Illegal Drugs Action Plan 2016-2017. The action plan contains key strategies to combat illegal drugs, namely:
 1. Minimize drug-related influences in barangays;
 2. Promote drug-free work-place in the government and in private establishments; and
 3. Restrict the movement of illegal drugs among the provinces and adjacent regions.
- *Use technology to curb crime and support law enforcement.* The region recognizes the role of technology, such as installation of closed-circuit television in improving law enforcement. On the other hand, technologies that can be used to facilitate crime should also be controlled.
- *Ensure public safety through education and information campaign.* Crime prevention through education and information campaign will be sought to ensure public safety. Disaster Risk Reduction Management and Crime awareness especially the negative effects of illegal drugs must be taught in schools. Moreover, the family as a basic unit of the community should take an active role in building the moral values of the youth.
- *Collaboration among law enforcement agencies (LEAs).* Despite the active campaign against crime, Calabarzon still sees the need for a more convergent approach to sustain an environment that is conducive to growth and development. Collaboration among LEAs and stakeholders (i.e., the community and social service sector) to rehabilitate and integrate offenders back to society is necessary to ensure a holistic and participative approach towards sustaining public order and safety. There should be a close coordination and intelligence sharing of all LEAs concerned.
- *Integration of Human rights in law enforcement.* The government recognizes the value of human rights; hence it will be integrated into law enforcement by sustaining human rights officer in law enforcement agencies.

Major Programs and Projects

- Ugnayan ng Barangay at mga Simbahan
- Mamamayang Ayaw Sa Anomalya, Mamamayang Ayaw sa Ilegal na Droga
- High resolution closed-circuit television cameras in barangays and in all business establishments
- IEC through social media
- Barangay Anti-Drug Abuse Council
- Regulation of websites or applications that promote crimes through the
- Cybercrime Prevention Act of 2012 or Republic Act No. 10175
- Youth Entrepreneurship Law or Republic Act No. 10679, this law provides opportunities for the youth to become more productive citizens of the country through entrepreneurship
- Project Double Barrel Alpha
- Police Integrated Patrol System
- Bantay Turista

19

Accelerating
Infrastructure
Development

Accelerating Infrastructure Development

In order to achieve the national goal of inclusive growth, accelerated and strategic infrastructure development will be pursued. The region will implement infrastructure projects in transportation, flood control, water resources, power and energy, social welfare, and information and communication technology. These infrastructures aim to support tourism, agricultural productivity, safe environment, electrification, and mobility of people, goods and services.

Assessment and Challenges

Land Transport

Roads and Bridges

The total increase in length of national road from 2010 to 2016 is 77.64 km. As of October 2016, the total national road length in the region is 2,517.90 km. The increase in road length was attributed to the newly completed and converted national roads. The following are the newly converted roads as of 2015: a) Ternate-Nasugbu Road in Cavite and Batangas; b) Marawoy-Dagatan Road in Batangas; and c) Molino Boulevard in Cavite. Another significant accomplishment was the completion of the 115.15 km. Marikina-Infanta Road in 2011 which connected NCR to the REINA (Real-Infanta-General Nakar) municipalities in eastern Quezon. Other completed roads awaiting conversion are the Tiaong Bypass Road and the Candelaria Bypass Road in

Quezon. A map of the existing national road network is shown in Figure 19.1.

Existing national roads were continuously improved and rehabilitated resulting in the increase in length of paved roads from 2,186.832 km. in 2010 to 2,402.532km in 2015. Only Quezon Province has unpaved road that is in need of improvement (Table 7.1). Although continuous road improvements were done, only 42.75 percent of the national roads are in good condition as of 2015 (Table 19.2). Road widening is also on-going to increase the capacity of the national roads particularly in traffic congested areas.

Table 19.1 National Road Length by Surface Type, By Province, Calabarzon, 2015

PROVINCE	PAVED (KM)	UNPAVED (KM)	TOTAL LENGTH (KM)
Batangas	556.39		556.39
Cavite	438.84		438.84
Laguna	349.49		349.49
Quezon	825.555	105.23	930.785
Rizal	232.257		232.257
Calabarzon	2,402.53		2,507.76

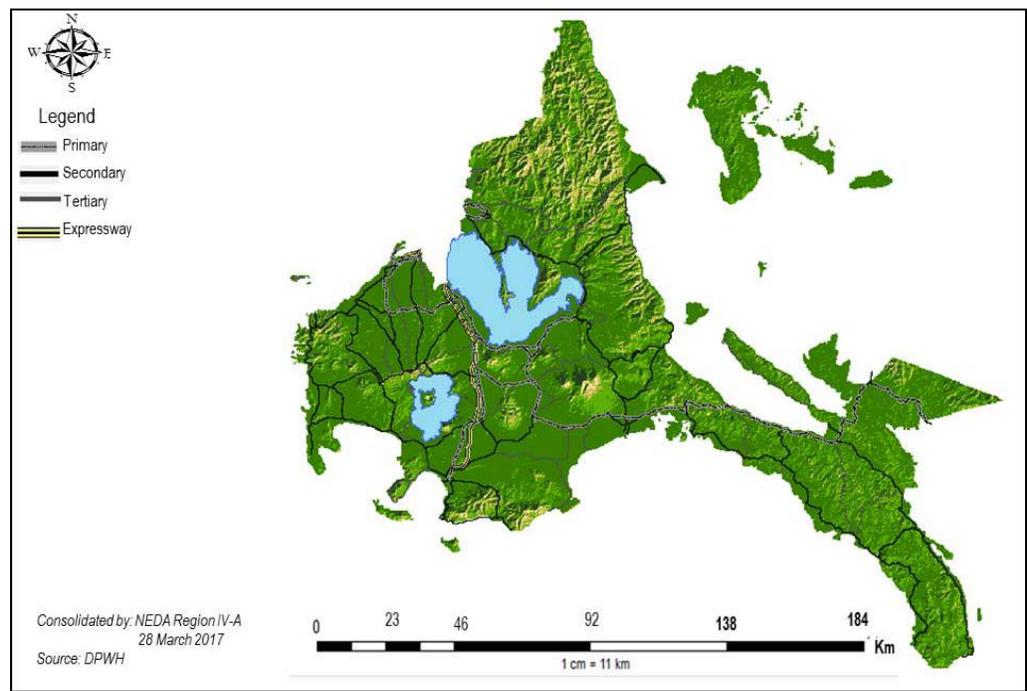
Source: DPWH IV-A

Table 19.2 National Road Condition, Calabarzon, 2015

CONDITION	LENGTH (IN KM)
Good	1,072.05 km (42.75%)
Fair	772.897 km (30.71%)
Poor	330.160 km (13.17%)
Bad	131.179 km (5.23%)
No assessment	201.473 km (8.03%)

Source: DPWH IV-A

Figure 19.1 Calabarzon National Road Network, 2016



Source: DPWH

The length of permanent bridges has also increased from 16,555 linear meters (l.m.) in 2011 to 18,447.31 l.m. in 2015. Similarly, the number of permanent bridges

increased from 597 in 2011 to 650 in 2015. The total number of existing bridges is 654.

In terms of plan targets, the length of paved roads and the length of permanent bridges were achieved in 2014 and in 2015. The target for the number of bridges was

also achieved from 2013 to 2015. Figures 19.2-19.4 show the performance of the said road indicators.

Figure 19.2 Length of Paved National Roads, 2011-2015



Figure 19.3 Length of Permanent Bridges Along National Roads (l.m.), 2011-2015

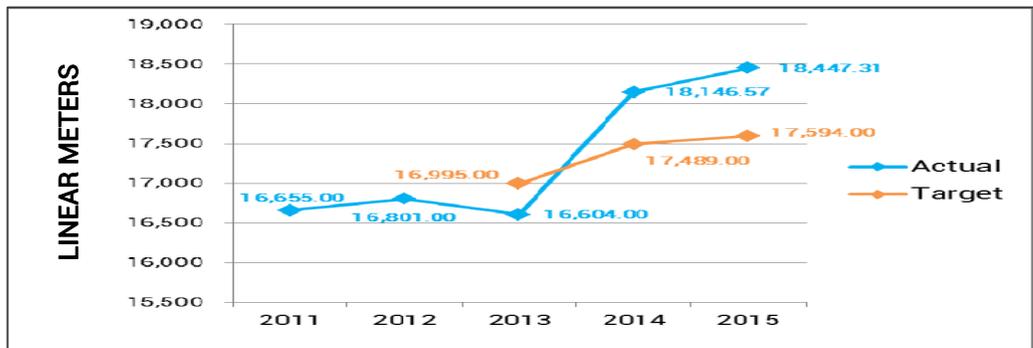
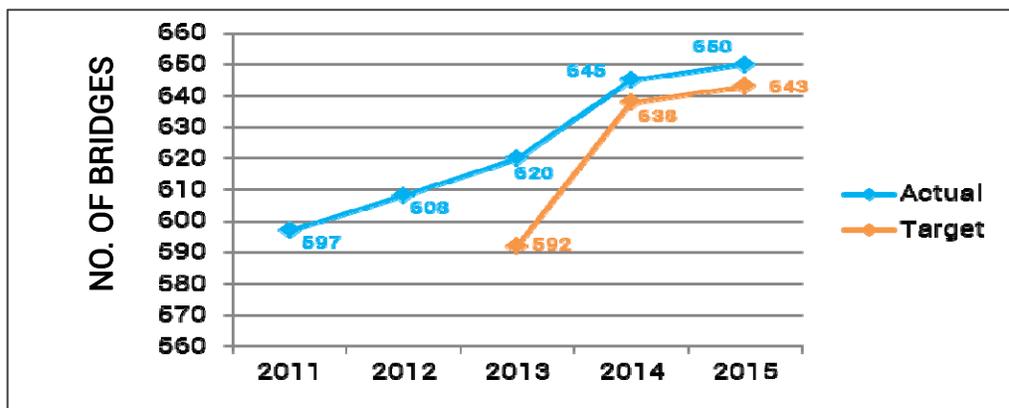


Figure 19.4 Number of Permanent Bridges Along National Roads, 2011-2015



Expressway

The total length of expressways or toll roads in the region is 94.89 kilometers (Table 19.3). The South Luzon Expressway (SLEX) in Metro Manila extends to Calamba City (Toll Road 2) and Sto. Tomas Batangas (Toll Road 3). The Southern Tagalog Arterial Road or STAR Tollway also connects the SLEX in Sto. Tomas, Batangas. The north bound section

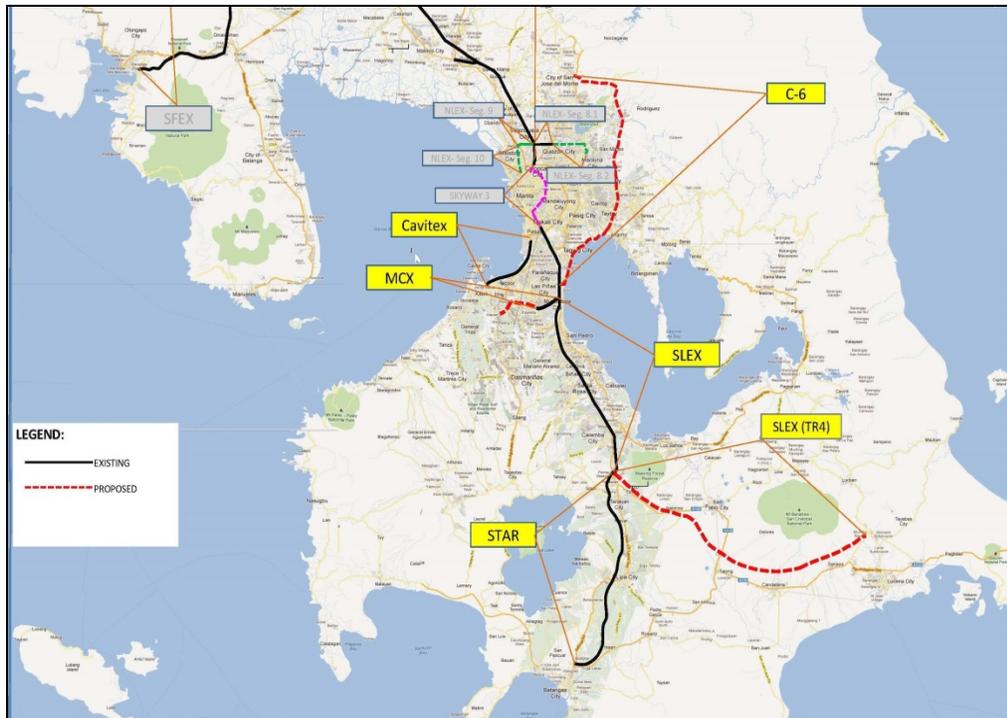
of the STAR Tollway was completed in May 2015, eight years after the south bound section from Lipa City to Batangas City was opened to traffic in 2007. The Manila-Cavite Expressway or Cavite and the Muntinlupa-Cavite Expressway (MCX) connect Metro Manila to Cavite. The Cavite and MCX were opened to traffic in April 2011 and July 2015, respectively.

Table 19.3 Length of Existing Expressways, Calabarzon, 2016

EXPRESSWAY	LENGTH (KILOMETERS)
Southern Tagalog Arterial Road	42.00
SLEX Toll Road 2	27.29*
SLEX Toll Road 3	7.60
Manila-Cavite Expressway/Cavite	14.00
Muntinlupa-Cavite Expressway	4.00*

*including sections in Metro Manila

Figure 19.5 Map of Existing and Proposed Calabarzon Expressways



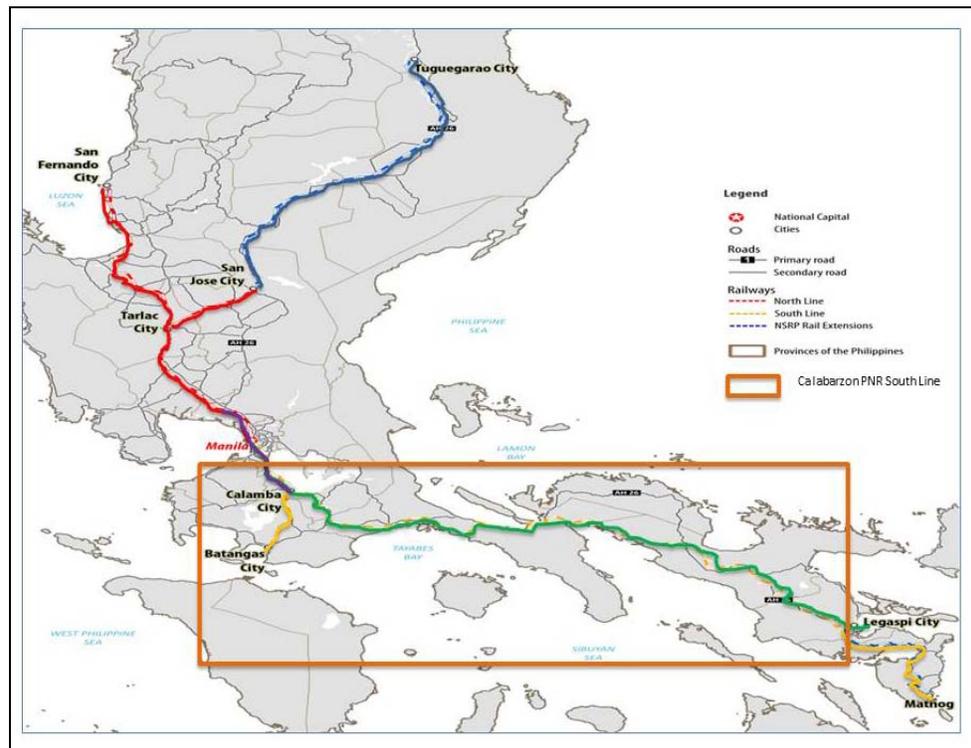
Source: TRB

Railway

The Philippine National Railways (PNR) used to operate a commuter line from Tutuban and Calamba and long-haul to Quezon and up to the Bicol Region. The long-haul from Manila to Bicol resumed operation in 2010 after a long time of suspension. However, the operation was

again stopped in 2012 due to a damaged bridge in Sariaya, Quezon in 2012. The PNR had recently conducted a test run for the Bicol Express. The PNR south line is currently pipelined for improvement/reconstruction under the PPP scheme. Figure 19.6 shows the existing railway network and proposed spur lines.

Figure 19.6 Map of PNR Railway Network



Source: DOTr

The following are the major challenges in land transport:

The region just like Metro Manila is experiencing traffic congestion along major roads. Road sections mostly located in the cities of Calabarzon have reached beyond its volume capacity, thus, creating traffic congestion. Mass transportation facilities that can help solve traffic congestion, such as the Light Rail Transit extension in

Cavite and PNR South, and bypass roads in every province are yet to be implemented.

The ongoing widening of the national roads is faced with the slow action in the relocation of obstructive utility posts. These posts located within the road-right-of-way are traffic hazards and cause delay in project implementation. Coordination meetings with the Department of Public Works and Highways (DPWH) and

concerned stakeholders are being undertaken to resolve the issue. Problems on road right-of-way acquisition also remained as one of the reasons in project delay.

Quality of road condition has to be addressed (see Table 19.2). Some causes of road deterioration include intrusion of water seepage in some pavements and heavy loaded cargo trucks that ply along the road. Load limits are not monitored due to the non-operation of the weighing station in Turbina, Calamba City.

Safety concerns along the roads also need to be addressed, such as flooding, insufficient lighting and signages. Flooded roads are experienced particularly in urban areas. Motorists and commuters complain on roads that do not have sufficient lightings and signages.

Limited access to tourist destinations, industrial areas, and agricultural and far-flung areas. The ongoing road projects towards tourism sites and rural areas are yet to be completed and expanded. There is also a need to improve road access to industrial areas and economic zones.

Water Transport

Ports

Connecting the island municipalities and other regions to the mainland provinces of Calabarzon, water transport plays a critical role in facilitating the flow of passengers and goods.

The ports of Batangas and Lucena are considered major ports in Calabarzon. The Batangas Port is vital for the shipment of goods and agricultural products between the nearby islands of Mindoro, Romblon in Mimaropa, and Caticlan in the Western Visayas region. On the other hand, Lucena Port is the gateway of commuters and cargoes to Marinduque and Romblon in Mimaropa, and Masbate in the Bicol region. At present, the port of Batangas operates for both domestic passenger sea travel and international container terminal port.

The increasing numbers of cargo, passenger, and shipcalls from 2011 to 2015 have contributed to the attainment of performance targets of the two ports (Table 19.4).

Table 19.4 Number of Shipcalls, Total Cargo Throughput and Passenger Traffic Performance, 2011-2015

ITEM	2011	2012	2013	2014	2015
Number of non-containerized cargos (in metric tons)					
Target	increasing	increasing	increasing	increasing	increasing
Actual	20,277,425	20,354,151	20,948,298	23,567,146	25,252,085
Number of containerized cargos (in TEUs)					
Target	increasing	increasing	increasing	increasing	increasing
Actual Batangas Port Ph1	3,627.00	6,327.00	11,848.50	36,717.50	54,812.00
Actual Batangas Port Ph2	10,502.00	8,456.50	11,400.50	98,310.25	133,261.75
Number of passengers					
Target	increasing	increasing	increasing	increasing	increasing
Actual	4,905,515	5,212,999	5,656,491	6,101,502	6,939,463
Number of vessels					
Target	increasing	increasing	increasing	increasing	increasing
Actual	34,606	34,236	35,603	37,548	44,525

Source: PPA PMO Batangas and MarQueZ

In 2015, a total of 133,261.75 twenty-foot equivalent units (TEUs) passed through the port. The increase of 35 percent was attributed to the transfer of operation of a number of shipping lines to Batangas Container Terminal. The congestion in the Manila International Container Port triggered the transfer. Other shipping lines using the Manila International Container Port became regular clients of the Batangas Container Terminal.

Cargo traffic also grew, especially in 2013-2014, posting a 12 percent increase. A total of 25,252,085 metric tons were transported to other regions in 2015.

Passenger traffic and shipcalls also increased in 2015 by 14 percent and 19 percent, respectively. This is attributed to the new fast craft and ro-ro vessels deployed by private operators, particularly in the Batangas-Calapan and Romblon-Caticlan routes. The increase in passenger and cargo traffic also brought about the introduction of additional trip schedules of shipping vessels plying Batangas-Calapan route for eastern and western parts of Mindoro provinces in Mimaropa region. A new route for Batangas-Romblon-Caticlan was opened to serve the increasing demand from the western island provinces of the country.

The government's policy to promote roll-on-roll-off (ro-ro) shipping transport and the presence of the Strong Republic Nautical Highway (SRNH) also complemented the operations of the two major ports of the region. The SRNH link the maritime operations between Calabarzon, Mimaropa and Visayas regions, reducing transport costs for

passengers and cargoes and benefiting the economies of smaller islands.

Aside from the two major ports, there are still 12 ports in the region that contributes to the economic activities in the island municipalities of Quezon and Batangas. Nine ports are under the Philippine Ports Authority port system located in the provinces of Quezon (ports of Polillo, Real, Mauban, and San Andres) and Batangas (Bauan, Lobo, San Juan, Calatagan, and Nasugbu). The remaining three (ports of Atimonan, Tingloy, and Mabini) are under LGU administration.

The port of Real ferries passengers to the Polillo group of islands and Jomalig, while Atimonan port services the Alabat island municipalities of the province. The port of San Andres serves as entry point of passengers and cargoes from Masbate in Bicol region.

The ports located in Batangas province are all serviceable and are used in transporting passengers, fish products, agricultural produce, and other goods to different parts of the province. However, to accommodate more vessels, there is a need to improve port facilities in the ports of Lobo and those in Tingloy and Mabini since the latter serves as the gateway to former. The need for port facilities at Isla Verde in Batangas is also in demand to accommodate outrigger motorized banca that will transport passengers and cargoes to other destinations.

Water Resources

With the different competing uses of water for domestic, agricultural and industrial

sectors there is a need to manage the region's water resources efficiently. The need to mitigate the effects of climate change is also a concern.

An efficient, sustainable and comprehensive approach to water development needs to be formulated to address the above-cited issues. This is to build a balance between development and

ecological integrity that will sustain the resource for generations to come.

Irrigation

The total irrigated area in the region increased by 4,979 ha (2.06% growth) from 52,237 ha in 2012 to 57,306 ha in 2015 (Table 19.5).

Table 19.5 Increase in Irrigated Area (in hectares)

YEAR	TARGET	ACTUAL	VARIANCE
2011	N/A	N/A	N/A
2012	N/A	52,327	N/A
2013	N/A	52,608	N/A
2014	53,477	56,151	2,674
2015	55,178	57,306	2,128

Source: NIA

The irrigated areas are classified by the National Irrigation Authority (NIA) into the following: a) new area; b) restored area and c) rehabilitated area.

A total of 1,129 ha of new areas were irrigated in 2013, exceeding the target of 762 ha (Table 19.6). However, the

succeeding years have failed to achieve the targeted new areas for irrigation. The non-achievement of this target could be attributed to NIA's shift in the irrigation development scheme from new areas to the rehabilitation and restoration of existing irrigated lands.

Table 19.6 Performance of New Irrigated Areas (in hectares)

	2013	2014	2015
New Irrigated Areas (ha)			
Target	762	709	261
Actual	1,129	336	216
Variance	367	-373	-45
Restored Irrigated Areas (ha)			
Target	364	899	706
Actual	468	887	248
Variance	104	-12	-458

Source: NIA

The target for restored irrigated areas was exceeded in 2013 by 104 ha. However, the targets were not achieved in 2014 and 2015. This can be attributed to the carry-over projects that were not completed during the previous years. Other reasons

were the damage to irrigated areas wrought by Typhoon Glenda, and the conversion of irrigated areas to other land uses that have not yet been remarked from the inventory of service areas.

Domestic Water Supply

Based on the 2014 and 2015 data of the local water districts, water production in

the region and the number of service connection established increased (Table 19.7).

Table 19.7 Service Connection and Production Performance of Water Districts by Province, 2014 -2015

PROVINCE/ WATER DISTRICT	SERVICE CONNECTIONS		CHANGE (%)	MONTHLY PRODUCTION AVERAGE (M ³)		CHANGE (%)
	2014	2015		2014	2015	
Laguna						
Pagsanjan	6,355	6,562	3	215,022	231,900	8
Sta. Cruz	11,174	12,240	10	262,999	301,541	15
Rizal						
Teresa	5,872	5,991	2	188,475	219,863	17
Morong	8,687	9,015	4	295,103	299,861	2
Pililia	6,187	6,619	7	131,983	155,948	18
Cavite						
Dasmariñas	99,852	102,511	3	2,665,805	2,555,409	(4)
Silang	32,434	34,163	5	828,194	884,575	7
Batangas						
Nasugbu	5,840	6,174	6	207,588	229,548	11
Tuy	2,736	2,861	5	73,664	52,890	(28)
San Juan	4,461	4,899	10	108,522	127,522	18
Total	183,598	191,035	4.05	4,977,355	5,059,057	1.64

Source of basic data: NWRB Report

The water districts have a total of 191,035 service connections in 2015, an increase of 4.1 percent over the previous year. Monthly production average, however, grew only 1.64 percent because of the decline in water supply production, particularly in Dasmariñas City, Cavite and in Tuy, Batangas.

The increase in service connections were in Sta. Cruz, Laguna; Pililla, Rizal; Silang, Cavite; and in Nasugbu and San Juan, Batangas. These areas are considered as tourist destinations and urban centers where the demand for water is growing. However, service connections established in the rapidly urbanizing city of Dasmariñas in Cavite grew only three percent indicating difficulty in the available water supply.

With urbanization actively progressing in the region, there may be a need to further develop sources of water supply to cope with the demand and slow growth of service connections in the region.

The following are the major challenges in water transport and resources:

The potential of Batangas Port as an international port has not been fully maximized yet. The challenge is to ensure that the ancillary services such as consolidators, warehouses, and carriers should be available in the port to encourage port users. There is a need for the port operators to conduct intensive marketing campaign and provide affordable rates to attract more shipping

companies to use the existing and underutilized port facilities.

The management of water resources lies in the hands of several agencies, such as NIA, the Local Water Utilities Administration (LWUA), the Metropolitan Waterworks and Sewerage System (MWSS), and the National Water Resources Board (NWRB). However, coordination between these agencies is weak. In addition, some irrigation systems and water supply facilities are not properly implemented while some do not respond to the needs of the people. Potentially irrigable areas are converted into residential or industrial areas, and there is also limited access to infrastructure facilities for water supply.

Agricultural lands are being converted into either residential or industrial areas as these bring higher returns. Providing irrigation to meet the needs of the agriculture sector is constrained by the conversion of agricultural lands; encroachment to irrigation canals and right-of-way; and the limited budget given to irrigation. NIA is unable to provide proper irrigation to farmers as there is no land where the irrigation facility can be built.

Irrigation canals need to be restored due to encroachment of informal settlers. Blocked irrigation canals cannot function and irrigate farm. In addition, there are quarrying activities in the right-of-way of NIA that damage irrigation facilities. Continuous quarrying activities also affect the delivery of construction materials, resulting in the delayed completion of irrigation projects.

There are many project proposals for irrigation but these cannot be implemented because of limited funds. If there is higher fund allocation, more irrigation projects will be constructed, restored, and rehabilitated.

The absence of a regional body that oversees the coordination and implementation of water supply projects has limited the access to water supply which provide consumers with potable water.

Quarrying and mining activities cause soil erosion, leading to the shallowing of rivers. If rivers continuously become shallow, the volume of water that can be produced by water districts will decrease. Siltation produces sediments that pollute the rivers and affect the quality of water produced by water districts.

With the increasing population, it is a challenge for water districts to supply safe water to all households. Water districts need to develop new water supply sources and improve their distribution system.

LWUA, MWSS, and NWRB should coordinate in the implementation of water supply projects to address the challenges in water supply.

Power and Energy

Power Generation

Calabarzon hosts several power plants that contribute electricity to the Luzon Grid. As of 2015, there are 17 power plants located in the region with an aggregate installed capacity of 6,918.50 MW (megawatt) and a

dependable capacity of 6,135.50 MW. The biggest share is from natural gas-fed plants with 2,861 MW or 45.14 percent of the total dependable capacity. This is followed by coal-fired plants with 2,020 MW (30.5%).

Table 19.8 Existing Power Plants in Calabarzon, 2015

FUEL TYPE	NUMBER OF POWER PLANTS		CAPACITY (MW)		PERCENT SHARE (%)	
	GRID CONNECTED	EMBEDDED	INSTALLED	DEPENDABLE	INSTALLED	DEPENDABLE
Coal	4	-	2,010	1,873	29.1	30.5
Oil Based	2	-	662.7	332	9.6	5.4
Diesel	1	-	12.7	12	0.2	0.2
Oil Thermal	1	-	650	320	9.4	5.2
Gas Turbine	-	-	-	-	0	0
Natural Gas	3	-	2,861	2,759.40	41.4	45
Renewable Energy	8	4	1,384.80	1,171.10	20	19.1
Geothermal	3	-	478.5	353.9	6.9	5.8
Hydro	3	2	797.5	758.5	11.5	12.4
Wind	-	1	54	21.4	0.8	0.3
Biomass	1	1	13.5	4.3	0.2	0.1
Solar	1	-	41.3	33	0.6	0.5
TOTAL	17	4	6,918.50	6,135.50	100	100

Source: DOE

Most of the private companies opt for investment in coal power plant development since this is the cheapest option for long-term power supply production. However, opposition in the operation of coal fired power plants has been growing, especially from religious and environmentalist group, particularly in Batangas.

Table 19.9 Calabarzon Additional Power Plant Capacities, January 2015

NEWLY OPERATING POWER PLANTS	LOCATION	INSTALLED CAPACITY(MW)	DEPENDABLE CAPACITY(MW)	COMMERCIAL OPERATION
Majestic Cavite Econ. Zone(CES) Solar Rooftop Power	Cavite Econ. Zones I & II, Rosario and Gen. Trias, Cavite	41.3	33	15 Mar. 2015
SLTEC Putting Bato Coal Fired Power Plant Unit 1	Calaca, Batangas	135	121	17 Apr. 2015
Sinoma Waste Heat Recovery Facility	San Jose, Antipolo	6	6	2 Apr. 2015
Pililla Wind	Pililla, Rizal	54	21.4	1 June 2015
SLTEC Putting Bato Coal Power Plan Unit 2	Calaca, Batangas	135	123	Feb. 2016

Source: DOE

As of 2015, the region has eight renewable energy power plants. The total share of renewable energy in power generation is at 19.1 percent of the total dependable capacity, of which the biggest share is on hydro and geothermal with 12.4 percent and 5.8 percent, respectively.

Calabarzon region contributes 371.3 MW or 67.99 percent to the Luzon Grid additional installed capacity of 546.1 MW. However, inspite of the additional capacity, supply cannot meet the growing demand for power brought by the increasing population and industrialization. The acceptability of coal-fired power plants

among IPs and local communities hinder the establishment of power plants.

Electrification

The region nearly achieved its target household electrification percentage of 95.7. The number of energized households in the region increased from 3 million in 2014 to 3.27 million in 2015. Despite the increase of the household population in 2015, the percentage of unserved

households improved from 7 percent in 2014 to 4.6 percent in 2015. This can be attributed to the implementation of electrification programs like the Sitio Electrification Program (SEP) of the National Electrification Authority (NEA). The SEP provided the electric cooperatives funding assistance for extension of distribution lines to remote sitios of the region, including free household connection.

Table 19.10 Status of Household Electrification Regionwide, 2014-2015

STATUS	2014	2015
HH Population(Projected)	3,233,265	3,432,898
Served HH	3,004,124	3,274,849
Unserved Households	229,141	158,049
Electrification Level	92.91	95.4

Source: DOE

Table 19.11 Status of Energization: Household Coverage and Energized, Calabarzon, 2011-2015

STATUS	2011	2012	2013	2014	2015
Municipalities					
Coverage	71	71	71	71	71
Energized	71	71	71	71	71
% Energized	100	100	100	100	100
Barangays					
Coverage	1,946	1,946	1,946	1,946	1,946
Energized	1,945	1,945	1,945	1,945	1,945
% Energized	99.9	99.9	99.9	99.9	99.9
Connections					
Coverage	675,400	688,400	704,800	718,500	737,900
Energized	610,665	633,985	659,815	680,893	703,57
% Energized	90.4	92.1	93.6	94.8	95.3

Source: NEA

There are three electric cooperatives operating in the region, namely: 1) First Laguna Electric Cooperative, Inc; 2) Batangas Electric Cooperative, Inc.; and 3) Quezon Electric Cooperative, Inc. The three major cooperatives work in partnership with the local electric cooperatives to distribute electric supply to 71 target municipalities. From 2011 to 2015, the target municipalities were 100

percent energized, while at the barangay level, electrification is at 99.9 percent.

The challenge of the energy sector is to ensure that the community's need and the growing demand for power due to industrialization are met. Thus, investments in the provision to have an adequate supply of power and energy

should be facilitated by addressing the negative perception of local communities and IPs on power projects particularly in coal.

Information and Communication Technology Infrastructure

As an industrialized region and home to many enterprises, Calabarzon sees the importance of communication; hence, there are policies geared towards the strengthening of ICT infrastructure to increase the availability of broadband connections and to provide faster communications for business processes and disaster risk information dissemination.

The number of installed telephone has been decreasing over the years but it has generated a huge demand for wireless phone subscription. This is primarily because customers are now shifting to wireless telephones or mobile phones. The shift is attributed to benefits in costs, affordability, flexibility, and accessibility.

The huge demand for mobile phones/wireless subscription encouraged network service providers to construct additional cell sites. From 2011-2014, the number of cell sites increased. However, this number decreased from 2015-2016 due to the stiff competition between networks resulting to mergers and acquisition. Relatively, the number of cell sites with broadband or internet connection has been rising for the past six years due to the increasing demand for internet connection and the entry of new players in the market.

Table 19.12 Calabarzon ICT Infrastructure, 2012-2014

INDICATORS	2012	2013	2014	2015	2016
No. of Installed Landlines	744,257	746,177	582,789	no data	no data
No. of subscribed Landlines	97,168	92,616	55,050	no data	no data
No. of cell sites with Network	2,089	2,518	2,782	2,343	2,026
No. of cell sites with Broadband	214	1,201	1,159	1,433	1,704

The growing population and enterprises in the region are expected to boost the growth of the Sector as service providers install more ICT-related infrastructures (cell sites, telephone lines, and internet lines).

The following are the major challenges in ICT infrastructure:

Despite the increasing number of broadband connections, slow internet connection is still an issue that needs to be resolved. At present, the Digital Subscriber

Line (DSL) has an average internet speed range from 1mbps to 5 Mbps, with data capping limitations and a minimum of 2-year service contract/lock-in period. Since Calabarzon is one of the heavy internet users in the country, it should be considered that the successful roll-out of several components under the Smarter Philippines requires faster and reliable internet connection for the transmission of large amounts of data for daily personal transactions and business services in the region.

The lack of internet access in rural and remote areas also needs to be addressed including the low cellular coverage that cause poor mobile phone reception. The bigger challenge is that the internet providers are mainly from the private sector. The government can only encourage the private sector to serve rural and remote areas even if it is not as profitable as urban areas.

There is an increasing demand for Information Technology-Business Processing Outsourcing (IT-BPO) industry. The challenge is to encourage investors to put up quality telecommunication infrastructure and office spaces to support the booming IT-BPO industry.

Social Infrastructure

Social infrastructure refers to physical assets and facilities that aid the delivery of social services. These include schools, classrooms, hospitals, rural health units, and day care centers that primarily benefit the health and education sector. This section highlights the major accomplishment and challenges of the sector during the past years and provides some strategies for a consistent and effective delivery of social services.

The various accomplishments in the sector have been very significant as social infrastructure facilities were constructed through the major programs implemented by the government, resulting in the improvement of the delivery of basic social services.

Education

Over the past six years there was an increase in the number of classrooms in the region. This can be attributed to the increased public spending on classroom constructions with the implementation of the Public-Private Partnership School Infrastructure Project (PSIP), the K to 12 Program, and the Bottom Up Budgeting (BUB).

The implementation of Senior High School (SHS) started in 2016 as the last mile of the K to 12 Basic Education Program. To meet the classroom demand of the additional two years in high school, SHS buildings were constructed. In 2014, a total of 727 SHS buildings were built. This increased to 1,946 in 2015. Batangas had the highest share of 554 SHS buildings, followed by Laguna (525), Cavite (445), Quezon (318), and Rizal (104).

The PSIP Phase 1 is a Php 16.28 Billion project of the Department of Education. It involves the design, construction, maintenance and financing of 9,300 classrooms in one and two-storey buildings in Regions I, III and IV-A under the Build-Lease-and Transfer scheme.

In the PSIP Phase 1, a total of 4,255 classrooms were constructed: Quezon with 1,252 classrooms, Laguna with 974, Cavite with 887, Batanga swith 72, and Rizal with 421. The PSIP Phase 1 was extended up to early 2016 due to weather disturbances, logistical issues, underperforming subcontractors, and security concerns.

BUB approach considered the needs of poor communities. Projects funded under the BUB increased from 76 in 2014 to 121 in 2015. These projects include the construction of school libraries, faculty rooms, school fences, provision of school furniture, rehabilitation of classrooms, *Gulayan sa Paaralan*, among others.

The launching of Accelerated and Sustainable Anti-Poverty (ASAPP) Project helped to expedite the construction of various social infrastructure facilities before the term of the Aquino administration ended.

Table 19.13 No. of SHS Buildings, PSIP Classrooms, BUB Projects, 2014-2015

PROVINCES	NO. OF SHS BLDGS.		NO. OF PSIP CLASSROOMS		NO. OF BUB PROJECTS	
	2014	2015	2014	2015	2014	2015
Cavite	78	445	600	728	12	21.3
Laguna	101	525	776	902	5	16.2
Batangas	48	554	641	701	18	9.4
Rizal	110	104	207	326	21	57.5
Quezon	390	318	959	1598	20	66.6
Total	727	1,946	3,183	4,255	76	33.7

Source: DepEd Region IV-A

Health

The number of health facilities has increased over the six year period. As of 2015, there were 264 hospitals in the region, 67 of which are government hospitals and 197 are private hospitals. Total bed capacity was 7,078 with 1,660 for government hospitals and 5,418 for private hospitals. The province of Batangas had the highest number of hospitals and bed capacity. In terms of services offered, these hospitals are categorized mostly as first

level and primary care hospitals (Table 19.14)

The Regional Hospital of Calabarzon is located in Batangas City while the Provincial Hospitals are located in the following municipalities: TreceMartirez, Cavite; Sta. Cruz Laguna; Lemery, Batangas; Morong, Rizal and Lucena, Quezon. Both the Drug Rehabilitation Center and the Women Children Crisis Center are located in Laguna.

Table 19.14 No. of Government and Private Hospitals, Authorized Bed Capacity, 2015

PROVINCES	GOVERNMENT		PRIVATE		LEVEL
	NO.	BED CAPACITY	NO.	BED CAPACITY	
Cavite	13	314	41	817	Primary Care/ Level 1
Laguna	15	512	41	722	Primary Care/ Level 1
Batangas	12	120	55	2,213	Primary Care/ Level 1
Rizal	10	294	29	714	Primary Care/ Level 1
Quezon	17	420	21	952	Primary Care/ Level 1
Calabarzon	67	1,660	197	5,418	

Source: DOH Region IV-A

The increase in the number of health facilities can also be attributed to the implementation of the Health Facilities Enhancement Program (HFEP). In 2014, 28 projects were completed out of 32 programmed projects, while 4 projects out of the 24 programmed projects were completed in 2015. The HFEP includes the construction, repair, rehabilitation, and renovation of rural health units and barangay health stations.

Though the HFEP was seen as an effective strategy to increase the number of social health facilities, the low performance in HFEP implementation in 2015 was mainly due to difficulties in acquiring permits and licenses from the LGUs and other concerned agencies, compliance to standards, and delayed release of fund. As such, it was also in the same year where the accomplishment was only 28.37 percent.

Table 19.15 HFEP Implementation, 2014-2015

PARTICULARS	2014	2015
Allocation	P148,373,751	P218,761,500
No. Of Projects	32	24
Completed	28	4
Ongoing	2	10
Funds Reverted	2	10
Accomplishment (%)	95.30	28.37

Source: DPWH Region IV-A

Social Welfare/Protection Facilities

The number of social welfare/protection facilities has increased in the last six years. As of 2015, there were five social welfare/protection facilities operated by DSWD in the region. Among the five facilities, the Field Office Resource Operation Center (FOROC) serves as the

warehouse of food packs for families affected by disaster (Annex D). However, the facility is located in the vicinity of the west valley fault. The DSWD Region IV-A plans to transfer the FOROC to Dasmariñas, Cavite.

Table 19.16 Social Welfare/Protection Facilities, Calabarzon, 2015

NAME OF FACILITIES/LOCATION	DESCRIPTION
BahayTuluyangmgma Bata (Home for Girls Bagong Bayan, Dasmariñas, Cavite)	A residential institution established to provide care, protection and rehabilitation to girls ages 5 to 17 years old who are victims of sexual abuse (rape, incest, acts of lasciviousness, sexual exploitation, abandonment, negligence and physical abuse and maltreatment)
The Regional Heaven Agriculture Compound, Rosario, Batangas	An alternative form of family care providing 24 hour group living on temporary basis to disadvantaged abused women and their qualified dependent whose needs cannot be adequately met by their own families and relative over a period of time. It was established in 1997 with the partnership with the Congressional Spouses Foundation Inc. (CSFI)
National Training Schools for Boys Barangay Sampaloc, Tanay, Rizal	Provides protection and parental care to CICL. It enables the CICLs who cannot undergo rehabilitation in the community to benefit from an intensive treatment of their deviant behavior and anti-social attitudes in

NAME OF FACILITIES/LOCATION	DESCRIPTION
	a residential setting and prepare them for a successful adjustment with their family and community after discharge.
Haven for the Elderly Barangay Sampaloc, Tanay, Rizal	A residential facility established on September 30, 1969 that provides care to male and female senior citizens ages 60 years old and above who are abandoned, neglected and in need. It has a bed capacity of 300.
Field Office Resource Operations Center Barangay San Jose, GMA, Cavite	This serves as the resource operation center of DSWD - CALABARZON during disaster and has 30,000 family food packs as stockpile at any given time.

The region has 307 need-responsive sub-projects under the Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS) project⁵. Most of the projects that are identified by the community are farm-to-market roads, school building, health centers, and water systems. The participation of the LGUs and concerned agencies is necessary to make the project sustainable. Once the projects are turned over to the community, the LGUs can include the KALAHI-CIDSS projects in their monitoring activities to know the condition and status of the project. Despite the government efforts to beef up investments on social infrastructure, there are still numerous challenges besetting each sector.

Despite government efforts to beef up investments on social infrastructure, there are still numerous challenges besetting each sector.

There are limited resources, shortage of social infrastructure facilities in remote areas, limited manpower and even institutional issues. Thus, the primary challenge is to provide enough infrastructure facilities for the services needed by the growing population in Calabarzon.

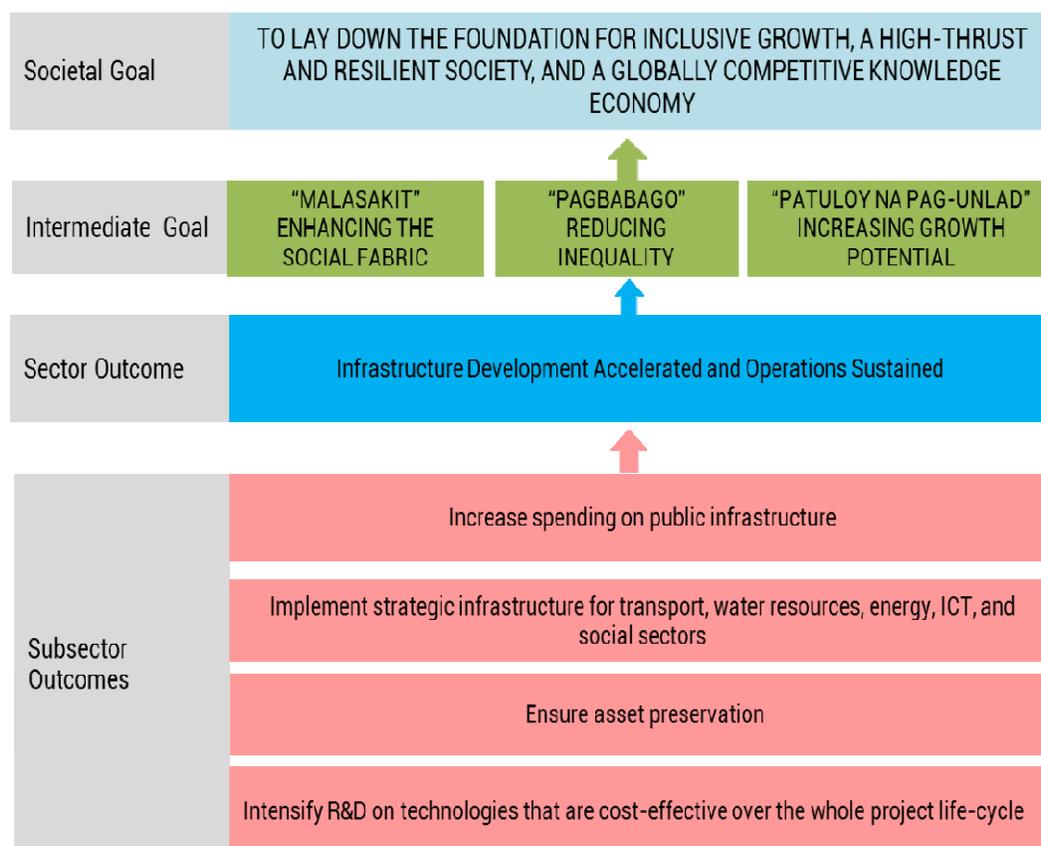
The perennial challenge for the education sector is how to provide equitable access to quality education through the construction of educational facilities even in remote areas in the region. The need to provide more classrooms to the growing population of children is exacerbated with the K to 12 Program as many schools have to construct additional classrooms for the additional years in high school.

The challenges besetting the health sector are the lack of and/or limited health infrastructure facilities in the rural and geographically isolated areas. The lack of health facilities contributes to the increase on infant and maternal mortality rates. The limited access to health services and the poor sanitary condition of the underprivileged also remain a challenge in rural areas. Since the devolution of power to LGUs, the construction of health facilities has been hampered, especially when local leadership changes along with its priorities. Issues on fund appropriation and non-compliance to health standards and practices seemed to likewise beset the region.

Strategic Framework

The region shall adopt the strategic framework of the PDP 2017-2022 on Infrastructure development with the following subsector outcomes: a) increase spending on public infrastructure; b) implement strategic infrastructure for the various infrastructure subsectors; c) ensure asset preservation; and d) intensify R&D on technologies that are cost-effective over the whole project life cycle (Figure 19.7).

Figure 19.7 Strategic Framework for Accelerating Infrastructure Development



Targets

Table 19.17 Plan Targets to Accelerate Infrastructure Development, 2017-2022

INDICATOR	BASELINE	ANNUAL PLAN TARGETS						END OF PLAN	RESPONSIBLE AGENCY
	2015	2016	2017	2018	2019	2020	2021	TARGET 2022	
Land Transport									
Length of national roads increased (km)	2,507.76	2,517.90	2,595.73	2,650.56	2,710.49	2,748.01	2,780.06	2,799.96	DPWH
Length of existing paved national roads increased (km)	2,402.53	2,461.95	2,471.07	2,475.14	2,487.23	2,509.14	2,510.00	2,511.50	
Length of permanent bridges along national roads increased (lm)	18,447.31	18,547.00	18,823.00	19,122.50	19,332.50	19,507.50	19,557.50	19,632.50	
Number of permanent bridges along national roads increased	650	654	658	662	664	666	667	669	
Percentage of national roads in good condition increased (%)	42.75	50.25	55.25	60	65.75	70.50	75.25	80.50	
Number of bridges retrofitted	18	42	65	72	77	82	87	92	
Number of bridges widened	38	73	129	140	145	150	155	160	
Water Transport									
Cargo Throughput (MT) Non-containerized	25,252,085	-	24,773,971	25,529,756	26,293,448	27,065,210	27,845,195	28,633,568	PPA Batangas and MarQuez
Containerized cargoes in TEUs	133,261.75	-	140,760	143,575	146,447	149,376	152,363	155,410	
No. of passenger	6,939,463	-	7,217,455	7,436,251	7,657,645	7,881,686	8,108,425	8,337,918	
No. of. Vessel	44,525	-	42,090	43,290	44,493	45,700	46,911	48,126	
Water Resources									
Percentage of HHs with access to safe water supply increased (%)	93	66	95	95	95	95	95	95	Water districts/ LGUs

INDICATOR	BASELINE 2015	ANNUAL PLAN TARGETS						END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2016	2017	2018	2019	2020	2021		
Percentage of HHs with access to basic sanitation increased (%)	97	65	95	95	95	95	95	95	Water districts/ LGUs
Irrigation Projects/Systems Construction/Restoration/ Rehabilitation									
a. New Area (ha.)	216	1,447	1,764	1,092	1,804	2,380	2,862	3,088	NIA
b. Restore Area (ha.)	248	1,373	230	1,130	980	644	1,029	1,522	
c. Rehab Area (ha.)	-	4,114	3,899	5,892	5,281	3,903	3,147	2,926	
Electrification									
Households energized increased (%)	95.4	-	-	-	-	-	-	100	NEA
Social Infrastructure									
Classroom to pupil ratio improved									
a. Kindergarten	1:35	1:35	1:30	1:25	1:25	1:25	1:25	1:25	DepEd, DPWH
b. Primary (Grade 1-3)	1:42 (eBEIS SY '13-'14)	1:45	1:45	1:35	1:35	1:35	1:35	1:30	
c. Primary (Grade 4-6)	1:42 (eBEIS SY '13-'14)	1:45	1:45	1:45	1:45	1:45	1:45	1:40	
d. Junior High School	1:60 (eBEIS SY '13-'14)	1:55	1:45	1:45	1:45	1:45	1:45	1:40	
e. Senior High School	-	1:40	1:40	1:40	1:40	1:40	1:40	1:40	
Access to health services improved									
Number of Barangay Health Stations established increased	-	-	tbd	tbd	tbd	tbd	tbd	tbd	LGUs
Regional Health Unit/Urban Health Center established increased	-	-	tbd	tbd	tbd	tbd	tbd	tbd	LGUs, DOH

Note: tbd-to be determined

Strategies

Subsector Outcome 1: Spending on public infrastructure increased

Enhance the linkage of the planning, programming, and budgeting processes of the government. Regional agencies, GOCCs, SUCs and LGUs shall identify priority programs, projects and activities (PPAs) that are consistent with the objectives of the Regional Development Plan. The Three-Year Rolling Infrastructure Program (TRIP) will be adopted to optimize the utilization of agency budget allocations for the implementation of priority PPAs.

Encourage private sector participation. Private sector participation shall continue to be encouraged in the construction and or maintenance of transportation, water resources, and social and ICT infrastructures.

Formulate and implement infrastructure development plans. Plans are necessary to ensure harmonized and well-coordinated implementation of PPAs. Infrastructure development plans to be implemented include roadmaps approved at the national and regional levels. Participation and consultation with key stakeholders shall be observed in the preparation of new development plans.

Improve government administrative systems and procedures on project implementation. The implementing agencies and LGUs shall be capacitated in project proposal and feasibility study preparation. This will ensure the quality of project proposals and their inclusion in budget allocation.

Subsector Outcome 2: Strategic infrastructure implemented

Transport

The efficiency of the transport sector shall continue to be enhanced to sustain economic growth and competitiveness by providing adequate, accessible, reliable, affordable and safe access for people, goods, and services in Calabarzon and neighboring regions. The region shall support national transport policies that would contribute to the efficient and effective implementation of transport projects. Roadmaps and other evidenced-based studies shall be considered in transport planning.

To improve mobility and accessibility, multi-modal transport terminals shall be established to provide a smooth transfer of passengers and cargoes. Integrated or electronic fare collection systems shall be encouraged for the convenience of passengers.

Major programs and projects shall be closely monitored to ensure the quality and timely delivery of outputs at the regional and local levels. The Regional Project Monitoring Committee shall strengthen the Local Project Monitoring Committees in monitoring and evaluation of PPAs.

Convergence programs of agencies shall be promoted. The DOT-DPWH Convergence Program shall be continued in the improvement and construction of access roads leading to tourism destinations. The DTI-DPWH Roads Leveraging Linkages of Industry and Trade (ROLL-IT) Program shall be rolled out to facilitate the

identification, prioritization and implementation of roads leading to various industries and economic zones. Agricultural areas shall be supported with farm-to-market roads. Additionally, communities in far-flung areas shall be provided with access roads and bridges.

Coordination mechanisms among agencies, LGUs, and private sector shall be put in place to resolve transport issues in road widening, right-of-way acquisition, lot acquisition and traffic management, among others.

The design of transport facilities shall ensure gender responsiveness for men and women, elderly, children and persons with disabilities.

Traffic management measures shall be implemented together with the improvement/construction of transport infrastructures to the highest quality standards. The newly formulated Calabarzon Traffic Management Plan shall be implemented and closely monitored. The Traffic Management Plan shall guide all key agencies and LGUs in planning, investment programming, budgeting, and implementing PPAs in traffic management. Intelligent transport systems, such as signalized road intersections, detection systems, and variable messaging system shall be installed in the appropriate road sections.

Transport infrastructures shall be improved to meet the highest quality standards and to enhance mobility. Anti-overloading shall be implemented through the operation of weighing bridges to avoid deterioration of roads. The Motor Vehicle

Inspection System shall be implemented to comply with the international standards on vehicle safety and environmental impact. The construction of expressways, bypasses, diversion roads, flyovers, and underpasses as well as road widening shall be prioritized.

The implementation of mass transport system shall be promoted. The modernization of the commuter line and long railway system and the extension of Metro Manila's light rail transit in the region shall be prioritized. Support of the LGUs shall be encouraged particularly in the clearing of right-of-way.

Port facilities shall be improved and developed to ensure seamless RoRo network. Port facilities will be developed and improved in the region to ensure that RoRo shipping transport remains a viable mode for transporting people and goods particularly in the island municipalities of Quezon and Batangas. The development will provide support to producers, importers and exporters by reducing travel time and transport cost of goods.

Aside from development and improvement, the establishment of climate change resilient facilities/ structures will secure the smooth logistics in times of disaster. Breakwater facilities will be developed for wave protection and to prevent the port from deterioration.

With the ASEAN integration, the quality and efficiency of port services, safety, health and environmental management will be in line with international standards.

The utilization of existing ports shall be optimized through the establishment of new inter-island and inter regional links to promote tourism and to accelerate area development. This will create economic opportunity for island municipalities to transport their agricultural products in other areas. The assistance of MARINA is needed in the promotion of new routes with the shipping companies.

The PPA shall conduct intensive marketing campaign on the port services to be offered with the locators and shipping companies. The availability of the ancillary services in the ports particularly in Batangas port shall be ensured to maximize the potential of Batangas Container Terminal and to realize fully its role as an alternate port of Manila.

The LGUs shall be encouraged to consider in their respective CLUPs the location of industrial and manufacturing zone near the port area to accelerate trade movement.

Development of a regional airport shall be explored. The recent congestion of air traffic at the Ninoy Aquino International Airport in NCR might transfer other general aviation in other airports in the regions. The improvement of existing airports should be revisited and the development of a regional airport in the region should be studied.

Water Resources

Irrigation

Existing laws and programs on land conversion shall be strictly enforced. The land classification process of the

local government units shall be revisited. Irrigation canals should be preserved/restored and free from informal settlers.

Adequate irrigation system to agricultural lands shall be provided to increase the total irrigated area in the region. Major irrigation dam projects and small-scale irrigation shall be pursued. Government subsidy on capital investment and financing of O&M on irrigation facilities shall be promoted.

Water Supply

Balance between water demand and supply shall be promoted. Surface water source shall be prioritized over ground water particularly in critical areas. Measures on efficient water use will be promoted such as collecting rainwater run-off for office and household uses but not for drinking.

Flood Control and Management

Flood control initiatives shall be continued. Existing flood control facilities shall continue to be improved and expanded. A comprehensive flood control master plan shall be formulated to integrate the national and local drainage systems. Capabilities of agencies and LGUs on flood management shall be enhanced.

Energy

Energy security shall be ensured by promoting clean energy. With the global trend towards clean energy, it is incumbent for the energy sector to harness fully the region's renewable energy potential such as geothermal, hydro and wind. The

development and promotion of renewable energy as source of clean energy in the region will also be pursued.

As energy demand is anticipated to grow significantly, there is a need to pursue the development of indigenous resources and to promote indigenous energy.

Intensify studies on other alternative uses of local coal to promote its utilization. The DOE should continue to implement coal development projects to address the social acceptability and environmental issues on the use of coal.

Investments in power and energy facilities shall be promoted. Government's support is significant to encourage more investments in power generation and energy efficient technology by accelerating and streamlining the approval process for RE service contracts.

Accelerate and streamline business process of the government (local and national) for power projects to attract more investors.

Fast-track the implementation of the policy mechanisms provided under RE Act of 2008 to further encourage RE development.

ICT Infrastructure

Programs for more efficient and reliable ICT services shall be implemented. To support the continuing demand for telecommunication services, continued implementation of the Smarter Philippines Program of DOST, which seeks to provide more efficient and reliable sources/services using ICT, is necessary. The projects that are currently running under

this program include the Integrated Government Philippines (iGovPhil), Philippine Community e-Center (PhilCEC) and Electronic Governance in Local Government Unit (eLGU) projects.

Improve local ICT capacities to support knowledge-intensive industries. LGUs will work closely with the newly created Department of Information, Communication and Technology (DICT) and the National Telecommunications Commission (NTC) on harmonizing government requirements and processes, i.e. permits, clearances, and fees issuances, for faster and strategic roll-out of ICT infrastructure especially on broadband, to continually increase coverage, improve access in rural areas and of low-income families and individuals. A competitive ICT market will also be promoted at the local level to improve service quality and reduce costs.

The Calabarzon Information and Communications Technology Strategic Plan will be the region's blueprint for overall ICT development and aligned with national master plans to be developed such as the National Broadband Plan, National Cyber security Plan and National Digital Terrestrial Television Broadcasting Migration Plan.

The IT-BPM Industry in the region shall continue to be expanded. For the major cities in the region to aspire continually for the "Next Wave Cities", the growth of IT-BPM industry in the region must be accelerated, and the industry's expansion of voice and non-voice services outside Metro Manila must be supported. In 2012, the Information Technology and Business

Process Association of the Philippines (IBPAP) revealed the list of top 10 next wave cities (NWCs) in the Philippines which include Lipa City, Metro Cavite (Bacoor City, Dasmariñas City and Imus City), Metro Laguna (Calamba City, Los Baños and Sta. Rosa City) and Metro Rizal (Antipolo City, Cainta, and Taytay).

Investments on disaster prevention and mitigation, ICT softwares, and infrastructures shall be promoted. Disaster prevention and mitigation is also a vital element encompassing ICT infrastructures. Hence, there is a need to establish a more responsive preparedness system/software such as the National Operational Assessment of Hazards (NOAH) program, Water Level Monitoring System (WLMS), Hazard Notification, Dissemination and Awareness (HANDA) Project, and the LGU Information Dissemination System (LGUIDS) Project to aid in the quick dissemination of vital information, especially during times of disaster and emergencies.

Social Infrastructure

Convergence in implementing infrastructure programs shall be strengthened. In order to provide equitable access to quality social services, social infrastructures must be in place. DepEd, DOH, DPWH, DSWD and other stakeholders should strengthen convergence in implementing their infrastructure programs. The government must be able to construct quality social infrastructure facilities not only through the collaboration of the national government/LGUs but also with the participation and partnerships from civic organizations and the private sector.

Social infrastructure in remote and rural areas shall be prioritized. Convergence efforts must be considered for the efficient implementation of social protection programs that will seek the cooperation and assignment of roles among agencies and stakeholders. Therefore, convergence of social infrastructure programs among implementing agencies and stakeholders must be strengthened to ensure that the target beneficiaries are fully covered by these programs especially those who belong to the marginalized sector, the IPs, people with disabilities (PWDs), among others. This can be attained by ensuring that those social infrastructures are all in place.

Though the numbers showed that the numbers of social infrastructures are increasing over time, the government should still prioritize pouring in investments in remote and rural areas, more specifically in conflict-affected areas in the region, since social infrastructure facilities tend to cluster in urban areas. Also, the need for support facilities for new settlements should be addressed because of the high in-migration rate of the region.

Social infrastructure deficit shall continue to be addressed. The demand for social infrastructure will continue to increase with the continued implementation of various priority projects of the government. The effective implementation of the K to 12 Program should be anticipated as this would entail additional school buildings/classrooms in the coming years. The implementation of BUB and HFEP shall continue to serve the target

stakeholders and provide them the best social services possible.

Proper waste management shall be promoted. LGUs will be provided assistance in complying with the requirements under RA 9003. Public awareness programs to promote proper waste management shall be intensified. Investments in relevant technologies will also be undertaken to improve solid waste management in the region. Clustering of LGUS is recommended to develop solid waste facilities like sanitary landfill.

Subsector Outcome 3: Asset preservation ensured

Greater emphasis shall be given on the sustainability, safety and resilience of infrastructure facilities in the region. Existing infrastructure assets shall be preserved so they would not hamper the delivery of services to the people.

Climate change adaptation and disaster resilience of infrastructure facilities shall be observed. The government shall ensure that public infrastructures can withstand the effects of disaster and climate change. Logistics network of critical infrastructures

such as roads, bridges, ports and communication shall be ensured in times of calamity and disasters.

Security of infrastructure facilities shall be ensured. Security of critical infrastructures from threats such as those from terrorist attacks shall be ensured. Coordinated efforts among agencies and private sector are encouraged to enhance the safety and security of infrastructure facilities. The use of state-of-the art technologies shall be explored and used for security purposes.

Sector Outcome 4: Intensify infrastructure-related research and development (R&D)

The government and the private sector shall pursue programs on R&D to improve the development of infrastructure facilities. The R&D initiatives shall include, among others, renewable energy, waste water treatment, solid waste management, modern transportation systems, disaster-resilient infrastructures, and ICT applications.

Major Programs and Projects

Transport

- Road and Bridge Widening Projects
- Bypass, Diversion and Tunnel Road Projects
- Road improvement projects
- STAR Tollway-Pinamucan Bypass Road Project
- DOT-DPWH Convergence Program
- DTI-DPWH ROLL-IT Program
- Traffic Management Projects
- Motor Vehicle Inspection Centers
- Cavite-Laguna Expressway Project
- SLEX Toll Road 4 Project
- Laguna Expressway Dike Project
- Rizal Dike Expressway Project

- Calauan-Los Baños-Bay Expressway Project
- C6 Expressway Project
- LRT 1 Cavite Extension Project
- LRT 6 Project
- East-West Rail Project
- North South Rail Project/PNR South Project
- Drainage and Flood Control Projects
- Farm-to-Market Road Projects
- Local/Barangay Roads Projects
- Improvement and Development of Port Facilities
- Strict implementation of Quality Management System (QMS) and Port Safety, Health and Environmental Management System (PSHEMS)
- New RoRo Routes
 - Cavite to Mariveles, Bataan
 - Calatagan-Lubang-Coron
 - San Andres, Quezon to Masbate, Bicol and Cebu
 - San Juan, Batangas to Pola, Oriental Mindoro and Marinduque

Irrigation

- Irrigation Dams
- Rehabilitation and Restoration of Irrigation Systems
- Development of Small Scale and Community-based Reservoir Irrigation Projects

Water Supply

- New Centennial Water Source Project
- Bulk Water Supply Projects
- Establishment of Regional body for Water Supply Subsector
- Rainwater Harvesting and Water Impounding Projects
- Development of Total Water Management Plan

Power and Energy

- Pagbilao Coal-Fired Thermal Plant 1x420 MW, Pagbilao, Quezon
- San Buenaventura Power Limited Co. Project, Mauban, Quezon
- Pagbilao Combined Cycle Gas Fired Power Plant, Pagbilao, Quezon
- CW Home Depot Solar Power Project, Sta. Rosa City, Laguna
- Maibarara 2 Geothermal Project, Batangas
- Asia Gas Biogas Power Plant Project, Batangas
- Sitio Electrification Program
- R&D for Pollution Control in Coal-Fired Power Plants

20

Ensuring
Ecological Integrity,
Clean and Healthy
Environment

Ensuring Ecological Integrity, Clean and Healthy Environment

The environment is one of the foundations of sustainable development as it provides the needed raw materials to support the productive sector, livelihood and cultural activities, and the appropriate setting for human settlements to thrive. Thus, its conservation and protection are critical to achieve a balanced and strategic growth for future generations.

In order to support higher regional economic growth and population increase in the next six years and abate possible negative ecological impacts, the maintenance of a healthy and good quality environment is needed.

The performance of environment and natural resources sector, including disaster adaptation, in the past planning period from 2011-2016 show that while environmental management has improved, environmental quality has declined and that disaster vulnerability and damages remain to be a challenge for the region. Based on the assessment of past performance and outstanding challenges in the sector, region specific as well as nationally applicable strategies, programs and projects have been identified to rehabilitate degraded areas and to protect and conserve pristine ecosystems.

Assessment and Challenges

Sustainable management of natural resources

In terms of management of natural resources, the region has fared well and met most of its targets on reforestation and protected area management. Rehabilitated denuded forestland area increased by 62 percent, from 13,688 ha in 2012 to 20,970 ha in 2016 with the largest area rehabilitated in 2013 at 29,087 ha.

As a result of the National Greening Program (NGP), the total area planted from 2012-2015 in the region is 87,964 ha with most of the area planted in Quezon and Rizal.

The total mangrove area rehabilitated doubled to 2,741 ha in 2015 as part of NGP efforts. By the end of 2015, the region has achieved 86 percent of the targeted 102,560 ha to be reforested by the end of 2016. Reforestation targets have been met through social mobilization, logistic

support and capacity building for implementers, and the intensified monitoring and validation on established plantations. The strengthened collaboration with civil society organizations, private sector and other institutions have likewise contributed to the successful implementation.

Only terrestrial and marine protected areas funded for development and management were reported. In 2015, 8,000 ha of degraded coral reefs were rehabilitated while 36 percent of classified caves managed by local governments were reported to DENR.

Table 20.1 Management of Forest Resources and Protected Areas in Calabarzon, 2012-2015

INDICATORS	2012	2013	2014	2015
Open and denuded forest land area rehabilitated (ha)	13,688	29,087	23,180	22,009
Timber poaching hotspots	6	0	0	0
Mangrove area rehabilitated (ha)	588	1,000	823	2,741
Number of costal area with biodiversity conserved	-	11	14	62
Terrestrial protected areas (PAs) managed	100%	100%	100%	100%
Marine PAs (LGU designated) managed	4%	2%	2%	2%
Area of degraded coral reefs in NIPAs marine PA rehabilitated (ha)	-	2,724	2,724	8,000
Percent of classified caves effectively managed by LGUs	-	-	43%	36%

Source: DENR Region IV-A

DENR exceeded its number of target beneficiaries who were given land titles in public alienable and disposal agricultural lands from 2013 to 2015, as well as the number of beneficiaries who were given land titles in residential areas. From 2012 to 2015, a total of 24,809 beneficiaries were

given land titles in agricultural alienable and disposable lands, while 17,671 beneficiaries were given land titles in residential lands. Partnerships with DA, DAR and local governments as well as monitoring and evaluation have facilitated the achievement of targets.

Table 20.2 Secured Land Tenure in Agricultural A&D and Residential Lands, 2012-2015

INDICATORS	2012	2013	2014	2015
Number of beneficiaries with secured land tenure in public agricultural A&D lands completed by 2015	6,820	6,389	5,797	5,803
Number of beneficiaries with secured land tenure in residential lands zoned as residential areas	6,257	2,698	3,911	4,085

Source: DENR Region IV-A

Environmental quality

Waste management is a major challenge in the region due to fast urbanization and increasing population. As the main source of land and water pollution, household waste is aggravated by the migration of informal settlers especially along bodies of water, with their houses having no proper septic and sewerage facilities.

As of November 2016, only 51 out of 142 local governments in the region have approved Solid Waste Management (SWM) plans. The region has not achieved its target on closing all open dumpsites and controlled disposal facilities by 2014. There are still 36 open dumpsites, 36 controlled disposal facilities, and only 23 sanitary landfills. The limited technical capacity, lack of budget and non-prioritization are among the major reasons why many LGUs do not have sanitary landfills. The low practice of waste segregation, limited number of Materials Recovery Facilities (MRF) and the lax enforcement of RA 9003 also contributes to improper waste disposal.

From 2012 to 2015, a total of 12 local governments have been provided with financial assistance for the establishment and upgrading of MRFs while nine local governments received financial assistance for the closure and rehabilitation of dumpsites in 2016. For 2017, DENR-EMB targets to provide financial assistance for the closure and rehabilitation of dumpsites to 50 LGUs within Water Quality Management Areas (WQMA) and Manila Bay areas while 67 LGUs within WQMA and Manila Bay areas are targeted for the establishment and upgrading of MRFs.

The water quality of major rivers in the region continues to deteriorate. From 2013 to 2015, the Imus, Ylang-Ylang, Rio Grande and Cañas rivers did not pass major water quality standards (e.g. Biological Oxygen Demand (BOD), phosphate, chlorides, Dissolved Oxygen (DO) and coliforms) for Class C water. Laguna de Bay passed Class C water but its BOD level has increased due to the back flow of water from Pasig River. Taal lake passed Class B water but did not meet other standards (e.g. pH, phosphate and total coliforms). In Laguna de Bay, the target number for illegal and non-compliant structures and area demolished was not achieved due to the outstanding court temporary restraining orders and the writ of preliminary injunctions.

The water quality of Laguna de Bay and major water bodies have not improved primarily due to pollution from domestic sources. The proliferation of informal settlers along water bodies worsened pollution levels. Agriculture sources and non-compliant industries also contributed to pollution in water bodies. As opposed to industrial sources which are regulated and monitored regularly, domestic and agriculture sources are mostly unregulated and have become the major sources of solid wastes and pollution.

Two WQMAs have been established in the regions which are the Imus-Ylang Ylang-Rio Grande rivers and Cañas Maalimango rivers. Through a governing board composed of local governments, government agencies, water districts and concessionaries, the academe, and civil society groups, the WQMAs have

conducted activities on water quality monitoring and clean-ups in recent years.

To institutionalize the establishment of septage facilities or sewerage system in all cities and municipalities, DILG has issued a circular for LGUs to establish a septage or sewerage system in collaboration with local water districts or water concessionaires. As a result, the City of Imus has adopted a local ordinance establishing a septage management system. In addition, septage and sewerage treatment plants have been increasingly established by water providers operating in Cavite and in Rizal.

On air quality, 1,336 industries with potential to pollute the air were monitored by DENR-EMB including private emission testing centers in 2015. As for local government initiatives, 24 local governments have enforced a ban on open air burning.

Disaster adaptation capacities of communities

The region remains vulnerable to damages and losses due to natural disasters despite the increased number of trainings and amount of budget. Disaster preparedness and response capacities still need to be greatly improved, as highlighted by the severe damages, losses and casualties brought by Typhoon Glenda in 2014 amounting to P 8.88 billion and 75 casualties.ⁱ In 2015, the region was affected by Typhoon Nona and the enhanced Northeast Monsoon which also resulted in

damages and losses amounting to P 218.99 million.ⁱⁱ

The severe damages, losses and casualties brought by Typhoon Glenda in 2014 were due to the lack of disaster preparation activities by LGUs such as information dissemination, pre-emptive evacuation and trimming of trees. Many houses and buildings were damaged because they were not able to withstand the strong typhoon. The lack of precise real-time typhoon tracking, limited financial and other resources of LGUs also constrained the preparation and response activities, that resulting in bigger typhoon damages.

In the region, disaster data in the past six years is still partial and unconsolidated because it varies from different sources in the local government and agencies. Thus, a central and easily accessible database on damages, losses and casualties has to be developed. Training and continuous monitoring of inputted data on disaster events are needed to ensure the accuracy and completeness of information. This database can also include a complete list of DRR trained individuals since this information is also lacking and needs consolidation.

As of 2016, 94 percent of the LGUs have completed their Local DRRMPs (Disasters Risk Reduction and Management Plans) and Disaster Contingency Plans, while 49 percent have completed LCCAPs (Local Climate Change Action Plans). However, there is still a need for the Comprehensive Land Use Plans (CLUPs) to integrate DRR and CCA (Disaster Risk Reduction and Climate Change Adaptation), as only 4.5 percent out of the LGUs have DRR and

CCA mainstreamed CLUPs. In 2016, DILG has started to conduct trainings on Integrating Climate and Disaster Risk Assessment (CDRA) for 23 pilot cities and municipalities in the region and will be gradually rolled out to other LGUs in the coming years. The commitment and competency of LGUs remains to be the most crucial factor for the completion of CLUPs.

To support disaster mitigation, preparation and response activities, all LGUs in the region are reported to have been trained to use geo-hazard maps and to carry out community based and scientific DRRM and CCA assessment, mapping, analysis and monitoring. Trainings on response and IEC were also widely conducted throughout the region. However, the utilization of the local disaster risk reduction and management fund (LDRRMF) in the region is very low ranging from 34 to 75 percent only. Thus, strictly monitoring the LDRRMF and Disaster Quick Response Funds (QRF) in agencies is needed to improve budget utilization.

Several local technology innovations on disaster prevention and response have been pioneered in the region. This includes the joint project of DOST IV-A and Batangas State University (BatStateU) on the Tactical Operative Amphibious Drive (TOAD), a vehicle that runs on land and in deep waters. TOAD was launched in June 2016 and can be used for disaster response and rescue. There are also similar amphibious vehicles being developed to serve as mobile ambulances or “amphibulance” especially for island municipalities. In 2016, BatStateU was also

able to develop a Tsunami Early Warning System with funding assistance from the United Nations World Food Project.

Continuous training on hazard mapping has been provided to local governments to increase their technical capacity and use of science based mapping as basis for zoning, land use and other policies. To sustain the mapping requirements of LGUs, the establishment of GIS centers in SUCs in the region is underway.

Figure 20.1 Calabarzon Built-up Area Overlay with Susceptible Areas to Hydrometeorological Hazards

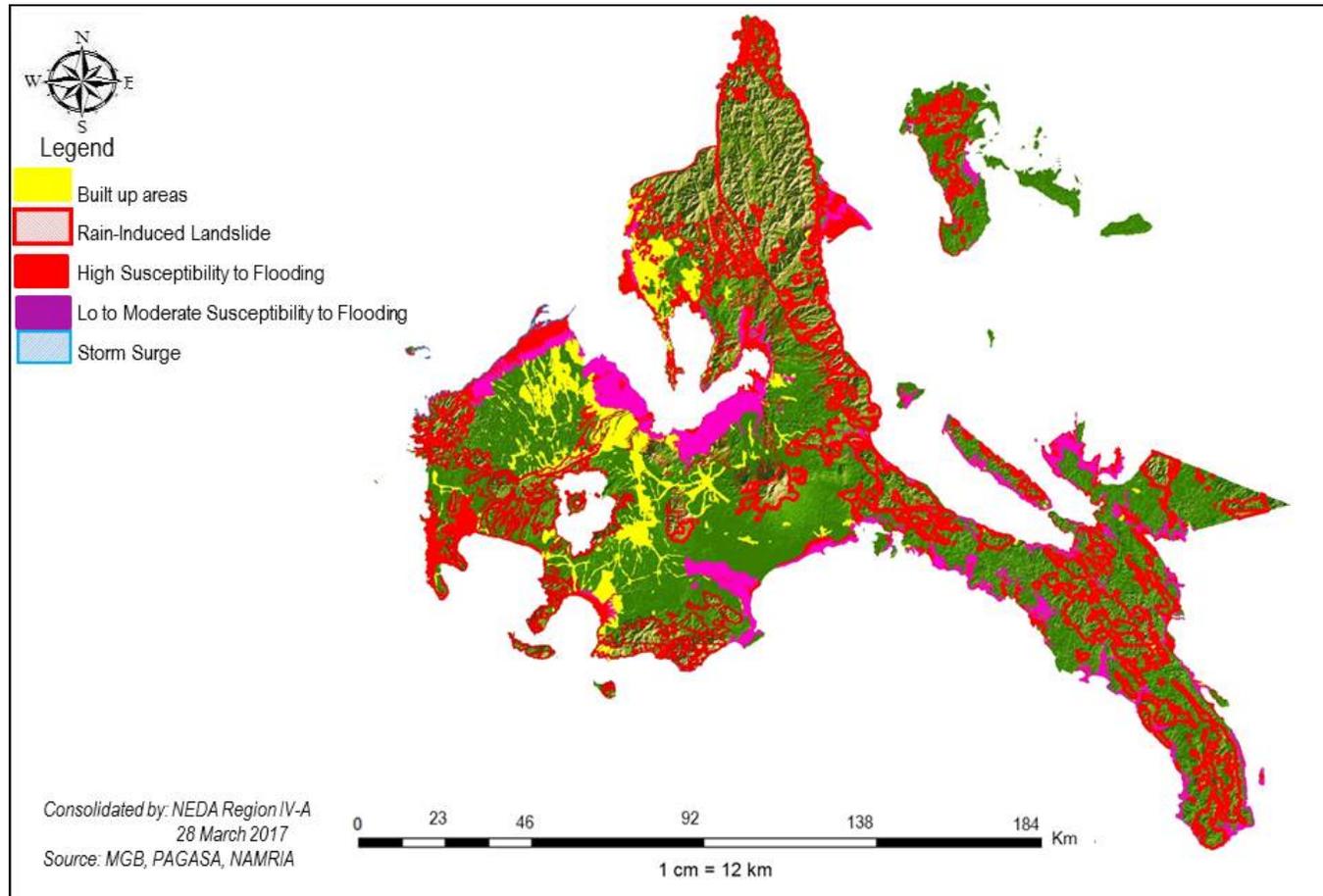
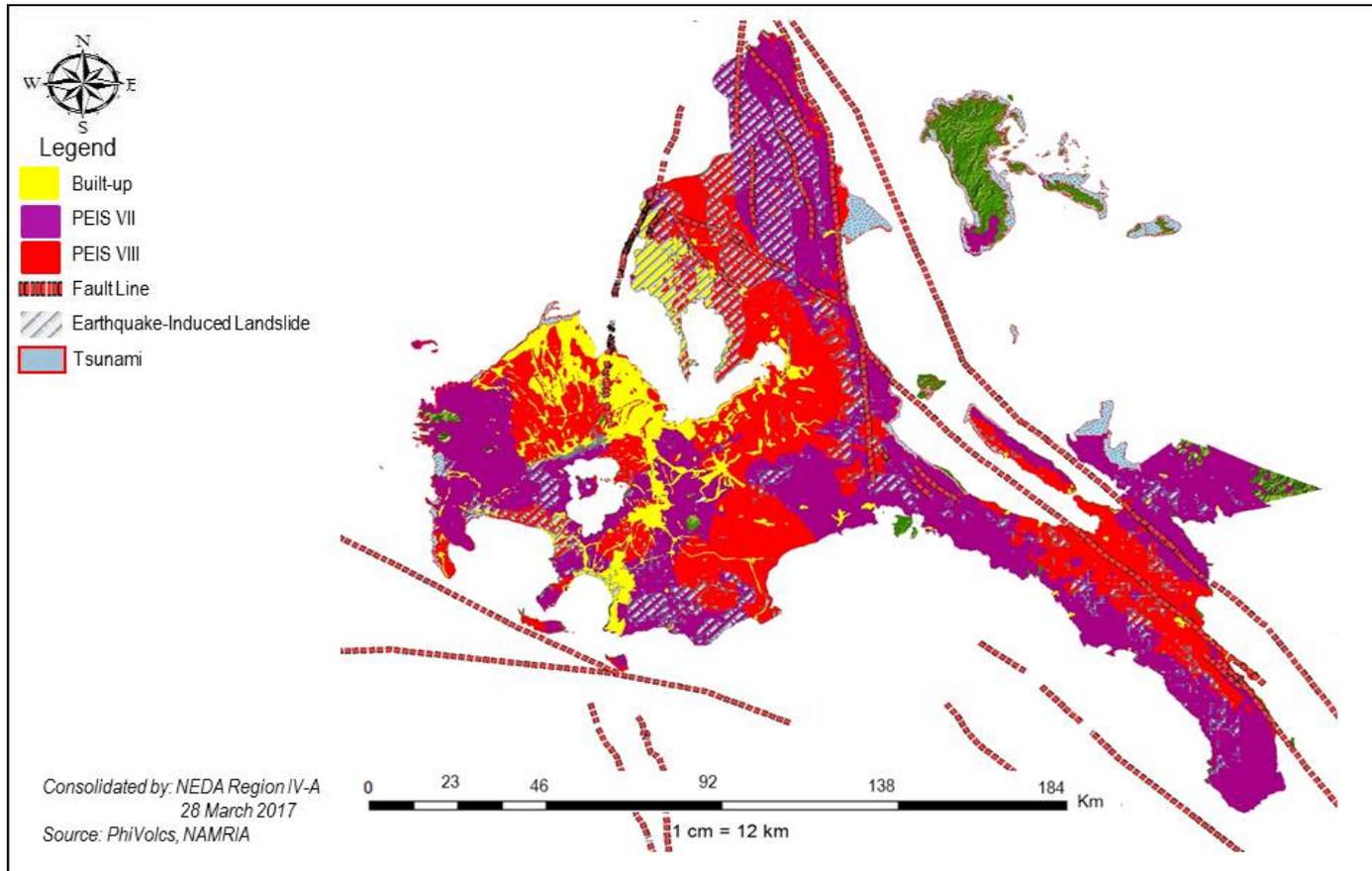


Figure 20.2 Calabarzon Built-up Area Overlay with Susceptible Areas to Earthquake Hazard



Strategic Framework

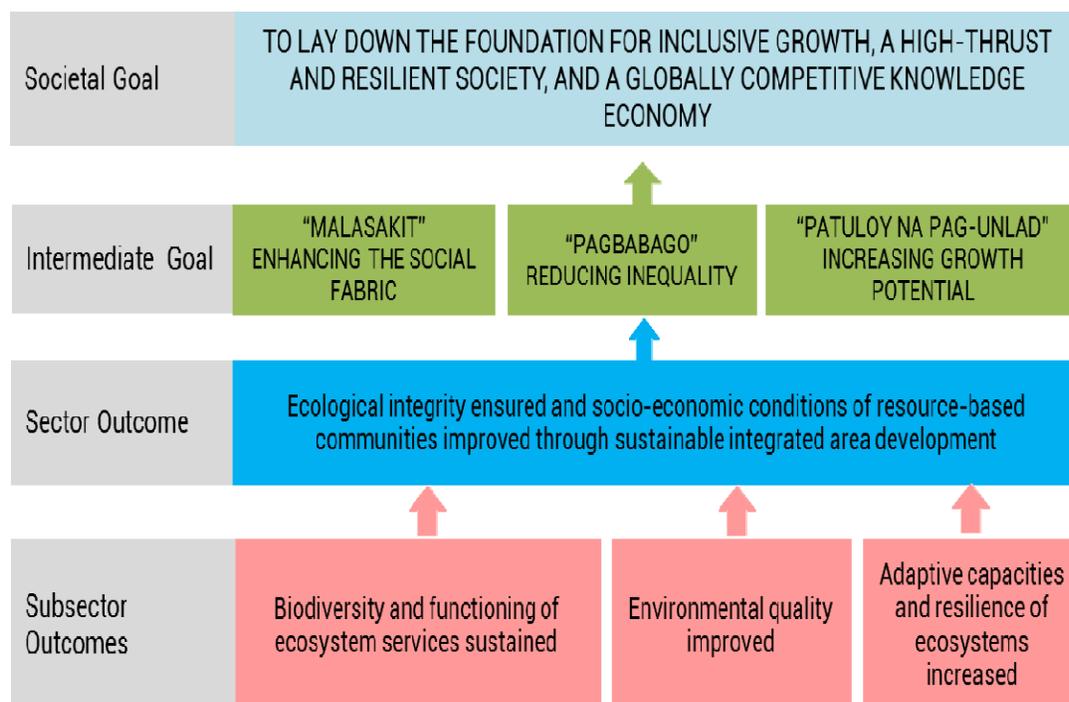
The main outcome for the sector is to ensure ecological integrity and to improve the socio-economic conditions of resource-based communities through sustainable integrated area development. In support of the overall sectoral outcome, three major strategies or outcomes will be pursued, namely: a) Biodiversity and functioning of ecosystem services sustained; b) Environmental quality improved; and c) Adaptive capacities and resilience of ecosystems increased.

Sustainable integrated area development (SIAD) and participatory environmental governance will be an overarching principle in implementing the various

strategies to achieve the outcomes. SIAD will be adopted as a strategy to address holistically the environmental, economic, social, political, and cultural challenges and opportunities in a specific area, ensure social justice and improved quality of life.

Cross-cutting strategies will also be pursued to support the achievement of the environment sector, such as sustainable financing schemes, incentive mechanisms, education and public awareness on ENR, DRRM and CCA efforts will also be operationalized and actively promoted to ensure continuity and effectivity of interventions.

Figure 20.3 Strategic Framework to Ensure Ecological Integrity, Clean and Healthy Environment



Targets

Table 20.3 Plan Targets to Ensure Ecological Integrity, Clean and Healthy Environment

INDICATOR	BASELINE 2016	ANNUAL PLAN TARGETS					END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Subsector Outcome 1: Biodiversity and functioning of ecosystem services sustained								
Forest Cover increased ¹	570,913 (2010)	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	DENR, NAMRIA
Quality of coastal and marine habitats improved ²	Coral reef: giant clams reseeded in 133.757 hectares - nine (9) MPA's	Maintained quality	Maintained quality	Maintained quality	Improving quality and productivity	Improving quality and productivity	Improving quality and productivity	DENR
	Mangrove 420 hectares planted under the NGP Mangrove	Increased/improved	Increased/improved	Increased/improved	Increased/improved	Increased/improved	Increased/improved	
Employment from ecotourism and sustainable community resource-based enterprises increased	240 ³	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	DENR, DOT, DTI, DA
Number of issued residential free patents increased	2,969	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	DENR
Subsector Outcome 2: Environmental Quality Improved								
<i>Air Quality</i>								
Percentage of urban areas with air quality within ambient air quality guideline value /standard increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	EMB
Number of urban areas with air quality stations (PM 10/2.5, DOAS) increased	2	4 (1 PM10-2.5; 3 DOAS)	5	6	7	8	9	EMB
<i>Water Quality</i>								
Water quality of priority river systems within water quality guideline value/standard (10 parameters: BOD ₅ , NH ₃ -N, CL, Color, DO, pH, PO ₄ , TSS, Fecal Coliform and Temperature):	Failed Class C water standard (Imus, Ylang-ylang, Cañas River);water quality baseline data for IyamDumacaa River to be tested	Within Class C water standard or better	DENR-EMB, LGUs, WQMAS					
a) Imus River								
b) Ylang-Ylang River								
c) Rio Grande River								
d) Cañas River								
e) IyamDumacaa River								

INDICATOR	BASELINE 2016	ANNUAL PLAN TARGETS					END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Water quality in 10 sampling stations along Manila Bay within water quality guideline value/standard (8 parameters: fecal coliform, color, DO, pH, TSS, Temperature, Phosphate, NH3-N):								
a) Bacoor beach			Within Class C water standard or better	DENR-EMB, LGUs, WQMAS				
b) Lido Beach	Failed Class C water standard	Within Class C water standard or better	DENR-EMB, LGUs, WQMAS					
c) Villamar I								
d) San Isidro								
e) Celebrity								
f) Garden Coast								
g) CoastaEuegenia								
h) Villa Criselda								
i) Antonio's Hideaway								
j) Daloroy's beach resort								
Number of established and operational water quality management areas (WQMAS) increased	1	3	3	3	3	3	3	DENR-EMB
Sustain average BOD level of Laguna Lake within standard of <7 mg/L	4.67 mg/L (2015)	<7 mg/L	LLDA					
Area of fishpens and fishcagesdemolished increased (hectares)	192 (2015) ⁴	800	800	800	800	To be determined	To be determined	LLDA
<i>Solid Waste</i>								
Number of Closed and rehabilitated open dumpsites (OD) and controlled dump facilities (CDF) increased	8	8	Increasing	Increasing	Increasing	Increasing	Increasing	LGUs, DENR-EMB
Number of Sanitary Landfills increased	23	23	Increasing	Increasing	Increasing	Increasing	Increasing	LGUs, DENR-EMB
LGUs with approved 10-year SWM plan increased	51	64	Increasing	Increasing	Increasing	Increasing	Increasing	LGUs, DENR-EMB
Percentage compliance of LGUs to RA 9003 (e.g., SWMP, MRF, & closure of dumpsites) increased	16%	21%	24%	27%	30%	33%	36%	LGUs, DENR-EMB
Solid waste diversion rate increased	46%	46%	49%	52%	55%	58%	61%	DENR-EMB
Subsector Outcome 3: Adaptive capacities and resilience of ecosystems increased								

INDICATOR	BASELINE 2016	ANNUAL PLAN TARGETS					END OF PLAN TARGET 2022	RESPONSIBLE AGENCY
		2017	2018	2019	2020	2021		
Number of reviewed CC/DRRM enhanced plans increased	CLUP: 37; CDP: 68; LDRRMP: 134; LCCAP: 92	Increasing	Increasing	Increasing	Increasing	Increasing	All provinces (if applicable), cities, and municipalities have enhanced: CLUP, CDP, LDRRMP & LCCAP	HLURB (CLUP), DILG (CDP, LCCAP), OCD (LDRRMP)
Percentage of LGUs with institutionalized and fully operational DRRM Office increased	-	Increasing	Increasing	Increasing	Increasing	Increasing	100%	LGUs, DILG, OCD

Notes: ¹SDG indicator

²Habitat quality classifications: a) Excellent; b) Good; c) Fair; and d) Poor

³Employed as tour guide in Pamitinan Protected Landscape, a PA in Rizal and 5 in MPPMNGPL in Cavite

⁴Includes area of all structures demolished within and surrounding Laguna de Bay

Strategies

A. *Biodiversity and functioning of ecosystem services sustained*

1. Intensify protection and sustainable management of forest, watershed, coastal and marine and land through adoption of ridge-to-reef approach

Forests and Watershed:

- Continuous rehabilitation of degraded forestlands, critical watersheds and major river basins through the reforestation efforts under DENR's Enhanced National Greening Program
- Strengthen the protection of natural and rehabilitated forest, effective and sustainable management of protected areas and key biodiversity areas through shared governance and closer coordination with local governments, indigenous and local communities, CSOs and private sector. For example, CSOs can be engaged in site development, management and monitoring, and partnerships with businesses for area management
- Adopt the ridge-to-reef approach in the development, review, and implementation of development activities, and environment protection and conservation efforts to take into account the interconnectivity of upland and downstream ecosystems
- Fast-track the completion of all CLUPs in the region especially for

highly urbanized areas and cities and ensure that these are DRR/CCA enhanced and have adequate environmental protection measures, and that zoning ordinance is approved and strictly enforced

- Complete delineation of final forest limits to identify areas for protection and production

Coastal and Marine areas:

- Improve management and protection through regular policing and patrolling activities within MPAs (Marine Protected Areas), activation of MPA network, preparation of MPA management plans, capacity building for local governments on the establishment and expansion of MPAs, and identification of fish sanctuaries
- Implement integrated coastal and marine resources management (for mangroves, coral reefs, sea grass, etc.) including the conduct of coastal resource mapping and assessment
- Complete delineation/delimitation and zoning of municipal waters especially among LGUs with overlapping jurisdiction. Mapping and zoning of foreshore areas into production and protection areas will be also be pursued to ensure fisheries sustainability
- Complete coastal resource mapping and vulnerability assessment based on satellite images and appropriate ground validation activities

Land:

- Issue appropriate tenure and management instrumentsⁱⁱⁱ in the protection, conservation, rehabilitation and development of forestlands and protected areas. Secured land titles will also be continuously provided to beneficiaries in public agricultural alienable and disposable lands and areas zoned as residential
- Issue Certificates of Ancestral Domain Title (CADT) to indigenous peoples to support their economic and cultural activities will be facilitated by NCIP
- Improve land administration and management through the computerization of land titling and related services, updating and sharing of land resources information and capacity building of practitioners down to the LGU level

Wetlands:

- Improve the management of priority caves and wetlands through the strict implementation of regulations, management plans and advocacy of sustainable practices

Urban biodiversity:

- Promote the establishment of more green spaces in urban areas to improve the air quality, and micro-climate in the area that will also

serve as an affordable and accessible socialization area in neighbourhoods contributing to better environmental, health and social quality of life for urban residents

2. Expand the development of ecotourism sites and resource-based enterprises or industries to provide employment, alternative source of livelihood and increased income for local communities.

- Promote and develop ecotourism sites in the region particularly upland, coastal, wetlands and caves destinations that will provide alternative sources of income and allow private and public investments to come to rural and coastal communities. Both the government and the private sector can provide assistance in eco-tourism site development, which includes the establishment and maintenance of ecotourism facilities

- Conduct the following supporting activities: a) identification of tourism destinations and products and promoting them to domestic and international markets; b) diversification of existing destinations and creation of new tourism areas, products, and services using community-based ecotourism approaches; and c) formulation and implementation of cluster tourism master plans in identified tourism development areas to maximize tourism assets and economic benefits

- Promote sustainable forest-based industries. The development of commercial forest plantations within applicable areas will be guided by the region's comparative advantage in terms of timber production
 - Adopt agroforestry system by providing assistance to upland farmers, particularly tenure holders, in developing agroforestry farms, which include installation of soil and water conservation measures and the establishment of partnerships with private investors to increase the competitiveness of goods and services in the market
 - Promote sustainable marine-based industries to achieve a blue economy. These industries include: a) sustainable fisheries and aquaculture; b) ocean energy, offshore and gas exploration; c) shipping/marine transportation and ship building; and d) eco-tourism, among others
 - Adopt biodiversity-friendly enterprises and practices in agriculture through capacity building and better access to available technologies
 - Improve system of collection of appropriate fees and fines in areas covered by tenure (e.g. foreshore lease areas, SAPA, etc.) to increase revenue collected from the use of these resources which can be utilized by government to sustain management activities of natural resources
3. Conserve and promote biodiversity through: a) protection of threatened and endemic species; b) prevention, control, and eradication of invasive alien species; c) conduct of scientific studies and regular monitoring of biodiversity population and habitats; and d) conduct of environmental protection/conservation awareness orientations in schools, local communities and among tourists
 4. Encourage the participation of civil society, private sector, indigenous and local communities in the management of natural resources

B. *Environmental quality improved*

1. Strengthen the enforcement of environmental laws and ensure conformity with environmental standards

Air quality management:

- Establish and maintain the required number of air quality monitoring stations especially in major urban centers in the region
- 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
- Strengthen the enforcement of anti-smoke belching campaign and vehicle emission testing through increasing the number of personnel and the quality and quantity of necessary equipment/facilities. The establishment of

- more government-owned motor vehicle inspection centers and the regular monitoring of private emission testing centers will also be pursued
- Promote EST (Environmentally Sustainable Transport) including efficient mass transport system and clean fuels
- Provide support for research and development of clean technologies and strengthen the adoption of green technologies and increased investments of the private sector

Water quality management:

- Establish and maintain the required number of water quality monitoring stations in major water bodies in the region
 - Regularly monitor industries and water and sewage treatment plants, ensure that they conform to water quality standards and enforce necessary sanctions for violators
 - Strengthen pollution control from domestic and agriculture sources that are mostly unregulated and have become the major sources of water pollution
 - Establish and operationalize more WQMA in the region to implement high-impact projects such as waste treatment, disposal, resettlement and infrastructure projects to improve water quality. Capacity building of WQMA members and resource mobilization will also be pursued to ensure sustainability of planned activities
- Revitalize and form river armies in local governments and conduct regular locally-initiated river and coastal clean-ups
 - Regularly monitor water quality of major rivers per province and establish local government-run laboratories on water quality testing
 - Strictly enforce easement of structures in lakes, rivers and coastal areas
 - Survey informal settlers especially those along water bodies, identify relocation sites, and relocate them in low cost housing with proper septage facilities
 - Study and enforce the maximum carrying capacity of fish cages and fish stocks in major lakes (e.g. Laguna lake, Taal lake) in the region;
 - Regularly monitor the ground water extraction and quality to ensure adequate water supply and water quality/potability

Solid, toxic and hazardous wastes management:

- Close and rehabilitate remaining dumpsites and promote alternative waste disposal and waste to energy facilities/systems/technologies that can be operated in partnership with the private enterprises
- Operationalize MRFs, treatment facilities, and submission of approved local SWM plans
- Strengthen the implementation of IEC activities that focus on proper waste management, waste

reduction and recycling for communities and households. For LGUs, re-orientation of local chief executives and relevant departments on environmental laws and incentives for hosting sanitary landfills will also be regularly conducted

- Provide technical assistance and capacitate LGUs on: a) the formulation of SWM plans; b) identifying, establishing, operating and maintaining solid waste technologies and facilities; and c) identifying possible revenue generating schemes to sustain SWM facilities. Financial assistance can also be provided by the government through existing programs and projects
- Increase LGU compliance to R.A. 9003 and LGU investment in waste management system and facilities in combination with public and private funding
- Promote clustering of SLF and SWM technologies to address its large capital requirement and allow low income LGUs to pool resources to establish such facilities
- Designate permanent municipal and city environment and natural resource officers in all local governments and provide necessary manpower and funding

Mined out areas:

- Transform mined-out areas into lands that are beneficial to the community through the

implementation of approved LGU rehabilitation management plan

- Identify areas that can be considered as mined-out areas for immediate rehabilitation
- Rehabilitate and reassess the status of existing mining and quarry areas
- Implement stoppage/closure order of mined-out areas for rehabilitation
- Strengthen monitoring on ECC compliance of mining and quarrying firms.

2. Promote Sustainable Consumption and Production

- Develop, promote, and transfer cleaner production technologies, including water and energy-efficient practices (e.g. rainwater catchment facility, cleaner fuels and engine, energy-efficient facilities/green buildings)
- Promote green procurement in both private and public sectors
- Promote EST, including mass transport system and clean fuels
- Promote and provide incentives for the use of renewable energy sources

C. *Adaptive capacities and resilience of ecosystems increased*

Strengthen the local implementation of all aspects (i.e. prevention and mitigation preparation, response, rehabilitation and recovery) of disaster risk reduction and management:

- Ensure the availability and access to location-specific hazards and risks, in particular access to large scale (1:10,000) probabilistic hazard maps, through the promotion and use of hazard mapping services of agencies and universities. DOST's plan to establish a Center for Hazard and Resource Mapping in the region will ensure a centralized and better access to hazard and other resource/thematic maps
 - Develop a regional disaster database to include damages and losses and disaggregated information on gender, and the vulnerable and affected sectors. Supporting activities include: a) collection of baseline data on disaster events in the past five years; b) formulation of a report template and reporting protocol; c) training for agencies and local DRRM officers; and d) linkage to other related databases
 - Continue to mainstream DRR and CCA in regional, sub-national, and local development plans and policies through the use of relevant planning guidelines such as HLURB's Supplemental Guidelines to generate updated climate change projection, and risk and vulnerability assessment in order to identify appropriate and adequate mitigation and adaptation measures
 - Adopt standards to ensure climate and disaster-resilient natural and human systems, including, but not limited to, communities and critical infrastructure. Retrofitting and construction of climate smart and disaster-resilient infrastructures and facilities will be pursued, especially in hazard-prone areas and environmentally-critical areas
 - Conduct and adopt area or firm level business continuity plans (BCP) not only for large companies but also for small and medium enterprises in order to reduce economic impacts and facilitate the fast recovery of industrial functions and economic activities in the region in times of natural disasters and emergency situations
 - Promote disaster resilient and climate smart businesses and livelihoods to minimize loss of lives and assets
 - Promote available DRRM and CC financing mechanisms such as the People's Survival Fund to improve access and increase utilization. Technical assistance will be provided by regional and, if needed, national agencies so that LGUs can comply with the requirements and successfully apply to such facilities
- Priority will be given to activities that will further strengthen the institutional, community and individual capacity to improve the timely and adequate response to disasters, as well as to increase resilience:
- Increase the competency of decision-makers and relevant

stakeholders or the public to understand the risk and vulnerability analysis/assessment through capability building on: a) reading/analyzing and integrating thematic or hazard maps for local plans; b) GIS trainings; and c) risk and vulnerability analysis/assessments

- Continue to strengthen the capacity of concerned agencies to conduct post or rapid disaster needs assessment by building a pool of technical experts and conduct of orientation or trainings on basic concepts and methodologies on damage and loss assessment for LGUs to facilitate timely submission and completion of reports and when necessary, rehabilitation and recovery plans
- Include the conduct of regular infrastructure audit in the budget

of agencies and local governments, and monitor the submission of reports to RDRRMC

- Review and update land use and post-disaster resettlement plans to ensure that resettlement areas, future residential and built-up areas are not in hazard prone, environmentally-critical and conservation areas
- Continue to conduct training on DRRM and ICS (Incident Command System) for local governments down to barangay level
- Continue to conduct IEC for households on the existing hazards in their areas and on the preparation and response in times of disasters and emergencies, and to mainstream DRRM and CC in school curricula at all levels

Major Programs and Projects

- Enhanced National Greening Program
- Social Forestry Project
- Forest landscape rehabilitation and restoration
- Delineation of final forest limits including production and protection forests
- Complete delineation of municipal waters
- Development and promotion of ecotourism sites
- Deployment of new technologies on water quality monitoring, e.g. SENRTY by DOST
- Establishment of wastewater treatment facilities in cities and municipalities
- by water concessionaires and water districts
- Establishment of shared solid waste disposal facilities among LGUs
- Development and adoption of green infrastructure and technologies such as rainwater harvesting or catching technologies
- Retrofitting of buildings, establishments and infrastructure according to climate and disaster resilient building standards
- Regional database on disaster damages and losses

Priority Researches

- Study on garbage hauling fees and on alternative, and affordable solid waste disposal systems according to the income capacities of local governments
- Study on the environmental impacts of dumpsites
- Mapping on ecological assessment for local governments
- Identifying pollutants in priority river systems
- Baseline studies on biodiversity population
- Study on the legal measures to address long term TROs and writ of preliminary injunctions especially for demolition of illegal and non-compliant industries

Legislative Agenda

- Enactment of Sustainable Forest Management Bill
- Enactment of National Land Use Act
- Enactment of local comprehensive environmental codes to cover land, water and air pollution control
- Establishment of clear coordination mechanism between National Water Resource Board, water concessionaires and local governments on ground water monitoring and extraction permit

ⁱPartial data based on Rehabilitation and Recovery Plan (RRP) for Typhoon Glenda Affected Areas

ⁱⁱPartial data based on RRP for Typhoon Nona and Northeast Monsoon Affected Areas

ⁱⁱⁱTenurial instruments includes the following: Integrated Forest Management Agreement (IFMA), Forest Land Grazing Lease Agreement (FLGLA), Community-based Forest Management Agreement (CBFMA), Certificate of Ancestral Domain Title (CADT) and Protected Area Community-based Resources Agreement (PACBRMA).

PART VII

PLAN IMPLEMENTATION AND MONITORING



21

Plan
Implementation
and Monitoring

Plan Implementation and Monitoring and Evaluation

Plan implementation

The Calabarzon Regional Development Council, as the highest policy and planning body in the region will coordinate the implementation of the RDP 2017-2022.

The plan will be implemented through programs, projects and activities (PPAs) contained in the Regional Development Investment Program (RDIP), which is an accompanying document of the RDP. The PPAs in the RDIP will contribute to the achievement of objectives and targets in the RDP. The RDIP shall be the basis for preparing the annual budget proposals of regional line agencies (RLAs), state universities and colleges (SUCs), and government-owned and controlled corporations (GOCCs).

Different levels of monitoring, which are from input to output and finally the outcome, will be undertaken to track the attainment of goals, objectives and targets in the RDP, and implementation of the RDIP. Input monitoring refers to the tracking of funding for the implementation of PPAs. Once funded, output monitoring will track the actual implementation of programs and projects in the RDIP. At the highest level of monitoring, outcome monitoring will assess the achievement of sector and sub-sector outcomes set out in the plan.

Input monitoring

To ensure that programs and projects identified in the RDIP are funded, the RDC conducts an annual budget review and endorses the budget of RLAs, SUCs, and GOCCs to the national agencies and the Department of Budget and Management since funds will be mainly sourced from the General Appropriations Act. Other financing sources are the Official Development Assistance (ODA) and the locally generated funds of LGUs. Public-private partnerships and other financing schemes, into which the local governments can now venture with the Local Government Code of 1991, shall be promoted to encourage self-reliance and competitiveness of local governments and better services from private sector operations.

Furthermore, to monitor proposed legislations identified in the plan, the NEDA through the Legislative Executive Development Advisory Council (LEDAC) will coordinate with the Senate, Congress and various implementing agencies.

Output Monitoring

Through the Regional Project Monitoring Evaluation System (RPMES), project monitoring and evaluation will be conducted with the active involvement of various agencies, local governments, and

non-government organizations. The RPMES covers all development projects, inclusive of projects in RDIP as well as ODA projects, and is undertaken by LGUs, state universities and colleges, and GOCCs at the regional, provincial/city and municipal levels.

At the regional level, Regional Project Monitoring Committee (RPMC) will monitor the status of project implementation through submission of project status reports containing information on the physical and financial accomplishments vis-à-vis targets. The local project monitoring committees at the provincial, city and municipal governments as well as RLAs, GOCCs, and SUCs will be enjoined by the RDC to carry out their monitoring functions and responsibilities. To ensure the on-track implementation of projects, project updates, issues and concerns will be tackled by the RPMC in quarterly meetings, site visits and problem-solving sessions.

The RPMC will also conduct ex-post evaluation of completed projects to determine if the outputs are contributing towards the achievement of the desired outcomes. For several projects that can have a great impact to communities and have implications for future policy and

budget directions, an impact evaluation will be conducted.

In March 2016, the Calabarzon Project Monitoring System (cPMS), an online system conceptualized and developed by NEDA Region IV-A, was launched. The cPMS is a web-based application that facilitates the enrolment of projects, submission of up-to date RPMES reports, and identification of problems that impede project implementation.

Outcome Monitoring

To operationalize the Managing for Development Results strategy, plan monitoring and evaluation will focus on assessment of the achievement of outcomes in the RDP as measured by indicators and targets in the Results Matrices which also correspond to the plan strategies, programs and projects.

The RDC Secretariat in coordination with the RDC sectoral and special Committees that served as Planning Committees during the plan preparation shall conduct an annual assessment on the achievement of targets in the RDP and outcome monitoring in the medium-term using the Results Matrix (RM) as reference. Table 21.1 presents the coordination mechanism under the RDC.

Table 21.1 Regional Coordination Mechanism for Plan Implementation and Monitoring

RDP CHAPTER	COORDINATION MECHANISM
Chapter 3: Overlay of Economic Growth, Demographic Trends, and Physical Characteristics	Regional Land Use Committee (RLUC)
Chapter 5: Ensuring People- Centered, Clean, and Efficient Governance	Sectoral Committee on Macroeconomy and Development Administration (SCMDA)
Chapter 6: Pursuing Swift and Fair Administration of Justice	SCMDA

RDP CHAPTER	COORDINATION MECHANISM
Chapter 7: Promoting Philippine Culture and Values	Sectoral Committee on Social Development (SCSD)
Chapter 8: Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries	Sectoral Committee on Economic Development (SCED)
Chapter 9: Expanding Economic Opportunities in Industry and Services	SCED, Investment Promotion Group (IPG)
Chapter 10: Accelerating Human Capital Development	SCSD, Regional Taskforce on Drug Rehabilitation (RTFDR)
Chapter 11: Reducing Vulnerability of Individuals and Families	SCSD, Special Committees & Sub-committees
Chapter 12: Building Safe and Secure Communities	SCSD, Special Committees & Sub-committees
Chapter 13: Reaching for the Demographic Dividend	SCSD, Special Committees & Sub-committees
Chapter 14: Vigorously Advancing Science, Technology, and Innovation	SCED
Chapter 15: Ensuring Sound Macroeconomic Policy	SCMDA
Chapter 16: Regional Competitiveness	Regional Competitiveness Council (RCC)
Chapter 17: Attaining Just and Lasting Peace	SCMDA
Chapter 18: Ensuring Security, Public Order, and Safety	SCMDA, Anti-Illegal Drugs Campaign Technical Working Group (TWG)
Chapter 19: Accelerating Infrastructure Development	Sectoral Committee on Infrastructure Development (SCID), Traffic Management TWG
Chapter 20: Ensuring Ecological Integrity, Clean and Healthy Environment	SCED

Note: Special Committees include Regional Committee on Quality Education for All (RCQEFA), Special Committee on Academe

-Industry Linkages (SCS A-IL), Regional Gender and Mainstreaming Committee (RGADC) and Committee on Migration and Development (CMD)

The RDC sectoral and special committees will ensure coordination and convergence of policies, programs and projects, and will serve as a platform to discuss and resolve regional and sector-specific issues, as well as national agenda that have regional consequences.

The annual plan assessment will be in the form of the Regional Development Report (RDR) highlights the significant accomplishments and performance of programs, projects and activities implemented by the regional line agencies, state universities and colleges and other government agencies. It also provides prospects and recommendations to improve the performance of lagging sectors.

By 2020, there will be a medium-term review of the RDP that will assess the achievement of outcomes and goals in relation to the performance in the last three years of implementation. In the medium-term review, priority strategies, major programs and projects and targets will be revisited and updated to achieve end of plan targets.

Implementation Support Activities

An advocacy plan is necessary to increase awareness and understanding of the plan, encourage participation of different sectors to contribute in plan implementation, facilitate unified policy direction development priorities, and gain support from key players in regional development.

The NEDA IV-A as the RDC secretariat will lead the RDP advocacy. The activities include preparation and dissemination of layman information and promotional materials and audio-visual presentation, the conduct of public campaigns and targeted briefings or orientations for key development actors (e.g., Congress, local governments and RLAs), and the use of social media platforms.

List of Acronyms

4Ps	Pantawid Pamilya Pilipino Program
ADM	Assistance to Disadvantaged Municipalities
AFF	Agriculture, Forestry, and Fisheries
A&F	Agriculture and Fisheries
AIEZ	Agro-Industrial Economic Zones
AIPs	Annual Investment Plans
ALS	Alternative Learning Systems
ARB	Agrarian Reform Beneficiaries
ARTA	Anti- Red Tape Act
ASAPP	Accelerated and Sustainable Anti-Poverty Program
ATMs	Automated Teller Machines
BCP	Business Continuity Plans
BFAR	Bureau of Fisheries and Aquatic Resources
BIR	Bureau of Internal Revenue
BJMP	Bureau of Jail Management Penology
BNS	Barangay Nutrition Scholar
BOD	Biological Oxygen Demand
BPLS	Business Permit and Licensing System
BPO	Business Process Outsourcing
BSP	Bangko Sentral ng Pilipinas
BUB	Bottom Up Budgeting
CADT	Certificates of Ancestral Domain Title
CA-LA	Cavite-Laguna
CARP	Comprehensive Agrarian Reform Program
CCT	Conditional Cash Transfer
CCVR	Concentration, Connectivity and Vulnerability Reduction
CCW	Centers, Corridors and Wedges
CDRA	Climate and Disaster Risk Assessment
CEST-UP	Community Empowerment through Science and Technology – Upscaling Program
CI	Creative Industries
CLIP	Comprehensive Local Integration Program
CLUP	Comprehensive Land Use Plan
CLUPs	Comprehensive Land Use Plans
CMCI	Cities and Municipalities Competitiveness Index
CMD	Committee on Migration and Development
COD	Center of Development
COE	Center of Excellence
CPI	Consumer Price Index

cPMS	Calabarzon Project Monitoring System
CSC	Civil Service Commission
CSIS	Citizen Satisfaction Index Survey
CSOs	Civil Society Organizations
DICT	Department of Information, Communication and Technology
DILG	Department of the Interior and Local Government
DMU	Disaster Management Unit
DO	Dissolved Oxygen
DOE	Department of Energy
DOH	Department of Health
DOJ-PPA	Department of Justice-Parole and Probation Administration
DoT	Department of Tourism
DPWH	Department of Public Works and Highways
DRR-CCA	Disaster Risk Reduction and Climate Change Adaptation
DRRM	Disaster Risk Reduction Management
DSWD	Department of Social Welfare and Development
DSL	Digital Line Subscriber
DTI	Department of Trade and Industry
ELA	Executive-Legislative Agenda
eLGU	Electronic Governance in Local Government Unit
EO	Executive Order
EST	Environmentally-Sustainable Transport
FDP	Full Disclosure Policy
FMRs	FARM to Market Roads
FOROC	Field Office Resource Operation Center
GAD	Gender and Development
GIDAs	Geographically Isolated Areas
GOCCs	Government-Owned and Controlled Corporations
GRDP	Gross Regional Domestic Product
GVA	Gross Value Added
GVCA	Global Value Chain
HANDA	Hazard Notification, Dissemination and Awareness
HEI	Higher Education Institution
HENYO	Harmonized e-Network to Yield Outcomes
HFEP	Health Facilities Enhancement Program
HR	Human Resource
iBPAP	Information Technology and Business Process Association of the Philippines
ICS	Incident Command System
ICT	Information and Communication Technology
IEC	Information Education Campaign
iGovPhil	Integrated Government Philippines

IP	Indigenous People
IP	Intellectual Property
IPG	Investment Promotion Group
IPIN	Implicit Price Index
IPOPHL	Intellectual Property Office of the Philippines
IPR	Intellectual Property Rights
IRA	Internal revenue Allotment
ISF	informal settler families
IT	Information Technology
IT-BPM	Information Technology and Business Process Management
IT-BPO	Information Technology-Business Processing Outsourcing
JOs	Job Orders
KALAHI-CIDSS	Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services
KATROPA	Kalalakihang Tapat sa Responsibilidad at Obligasyon sa Pamilya
KSAs	Key Shelter Agencies
LCCAPs	Local Climate Change Action Plans
LDRRMF	Local Disaster Risk Reduction and Management Fund
LEAs	Law Enforcement Agencies
LEDAC	Legislative Executive Development Advisory Council
LGUs	Local Government Units
LGUIDS	LGU Information Dissemination System
lm	Linear Meters
LSDF	Luzon Spatial Development Framework
LWUA	Local Water Utilities Administration
M&E	Monitoring and Evaluation
MCX	Muntinlupa-Cavite Expressway
MOVE	Men Opposed VAW Everywhere
MPAs	Marine Protected Areas
MRF	Materials Recovery Facilities
MSEZ	Manufacturing Special Economic Zones
MSMEs	Micro, Small and Medium Enterprises
MTP	Medical Tourism Park
MW	megawatt
MWSS	Metropolitan Waterworks and Sewerage System
NBB	No Balance Billing
NEA	National Electrification Authority
NIA	National Irrigation Authority
NCC	National Competitiveness Council
NCCA	National Commission for Culture and Arts
NCI	Non-crop insurance

NCIP	National Commission on Indigenous Peoples
NCP	National Competition Policy
NCR	National Capital Region
NEDA	National Economic and Development Authority
NEE	Not in Education and Employment
NEET	Not in Education, Employment and Training
NGC	National Government Center
NGP	National Greening Program
NLEX	North Luzon Expressway
NLMP	National Logistics Master Plan
NOAH	National Operational Assessment of Hazards
NSS	National Spatial Strategy
NSTP	National Service Training Program
NWCs	Next Wave Cities
NWRB	National Water Resources Board
OBI	Open Budget Index
ODA	Official Development Assistance
ODP	Open Data Portal
OFs	Overseas Filipinos
OPAPP	Office of Presidential Advice for Peace Process
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAMANA	Payapa at Masaganang Pamayanan
PAs	Protected Areas
PBIS	Performance Based Incentive System
PCs	Planning Committees
PCA	Philippine Competition Act
PDEA	Philippine Drug Enforcement Agency
PDP	Philippine Development Plan
PDPFP	Provincial Development and Physical Framework Plans
PhilCEC	Philippine Community e-Center
PNP	Philippine National Police
PNR	Philippine National Railways
PPAs	Programs, Projects and Activities
PQF	Philippines Qualifications Framework
PRDP	Philippine Rural Development Project
PSHEMS	Port Safety, Health and Environmental Management System
PSIP	Public-Private Partnership School Infrastructure Project
PWDs	People With Disabilities
QMS	Quality Management System
QRF	Quick Response Funds
RA	Republic Act

R&D	Research and Development
RBs	Rural Banks
RCC	Regional Competitiveness Council
RCQEFA	Regional Committee on Quality Education for All
RDCs	Regional Development Councils
RDIP	Regional Development Investment Program
RDP	Regional Development Plan
RDR	Regional Development Report
REINA	Real-Infanta-General Nakar
RGADC	Regional Gender and Mainstreaming Committee
RJSCC	Regional Justice Sector Coordinating Council
RLAs	Regional Line Agencies
RM	Results Matrix
ROLL-IT	Roads Leveraging Linkages of Industry and Trade
ro-ro	Roll-On-Roll-Off
RFPF	Regional Physical Framework Plan
RPMC	Regional Project Monitoring Committee
RPMES	Regional Project Monitoring Evaluation System
RPT	Real Property Tax
RRP	Rehabilitation and Recovery Plan
RSS	Region's Spatial Strategy
RTFDR	Regional Taskforce on Drug Rehabilitation
S&T	Science and Technology
SCED	Sectoral Committee on Economic Development
SCID	Sectoral Committee on Infrastructure Development
SCMDA	Sectoral Committee on Macroeconomy and Development Administration
SCS A-IL	Special Committee on Academe-Industry Linkages
SCSD	Sectoral Committee on Social Development
SEC	Securities and Exchange Commission
SEP	Sitio Electrification Program
SETUP	Small Enterprise Technology Upgrading Program
SGLG	Seal of Good Local Governance
SHS	Senior high school
SIAD	Sustainable Integrated Area Development
SLEX	South Luzon Expressway
SMEs	Small and Medium Enterprises
SPMS	Strategic Performance Management System
SRNH	Strong Republic Nautical Highway
SRP	Suggested Retail Price
STI	Science, Technology and Innovation
SUCs	State Universities and Colleges

SWM	Solid Waste Management
SWMP	Solid Waste Management Plan
TB	Tuberculosis
TEUs	Twenty-foot Equivalent Units
TEZ	Tourism Economic Zones
TIP	Term insurance packages
TOAD	Tactical Operative Amphibious Drive
TRIP	Three-Year Rolling Infrastructure Program
TSBs	Thrift and Savings Banks
TVET	Technical-Vocational Education and Training
TVIs	Technical-Vocational and Training institutions
TWG	Technical Working Group
U4U	You-For-You
UCBs	Universal/Commercial Banks
UNESCO	United Nations Educational, Scientific and Cultural Organization
UniFAST	Unified Financial Assistance System for Tertiary Education
WIS	Workers in the Informal Sector
WLMS	Water Level Monitoring System
WQMA	Water Quality Management Areas
YAFS	Young Adult Fertility and Sexuality

References

Chapter 5: Ensuring People-Centered, Clean, and Efficient Governance

Department of Interior and Local Government (n.d.). *Seal of Good Governance*.

<http://www.gov.ph/governance/wp-content/uploads/2015/06/Seal-of-Good-Local-Governance-SGLG.pdf>.

Go, S. P. (2016). *Migration Resource Center Pathways: A Guide to Operating, Assessing and Sustaining Migration Resource Centers*. Presented at the Regional Development Council Calabarzon, 4/F Marcelita Building, National Highway, Barangay Real, Calamba City, Laguna.

Chapter 8: Expanding Economic Opportunities in Agriculture, Fisheries and Forestry

Andersen, P. and Shimokawa, S. (2006). *Rural Infrastructure and Agricultural Development*. Paper presented at the Annual Bank Conference on Development Economics, Tokyo, Japan, May 29-30

Department of Science and Technology- Philippine Atmospheric Geophysical and Astronomical Services Administration. (2011). *Climate Change in the Philippines*. <http://pagasa.dost.gov.ph/index.php/climate-change-in-the-philippines>

Llanto, G.M., (2012). *The Impact of Infrastructure on Agricultural Productivity*. Discussion Paper Series No. 2012-12 Philippine Institute for Development Studies, Makati City, Philippines

Manalili, N., Yaptengco, K., Manilay, A. (2015). *Rapid Appraisal of Postharvest Facilities Projects in the Philippines*. Discussion Paper Series No. 2015-31 Philippine Institute for Development Studies. Makati City, Philippines

Yan, G. (May 23, 2015). “Ornamental Fish Farms: Aquaculture’s next big trend?” *Business Mirror*. <http://www.businessmirror.com.ph/ornamental-fish-farms-aquacultures-next-big-trend/>

Ranada, P. (August 24, 2015). “Rise in Metro Manila veggie prices blamed on Typhoon Ineng”. *Rappler.com*
<http://www.rappler.com/trending/%20coldillera%20vegetables>

Chapter 11: Reducing Vulnerability of Individuals and Families

International Federation of Red Cross and Red Crescent Societies. (n.d.). *What is Vulnerability?* <http://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/what-is-vulnerability/>.

- NEDA Region IV-A. (2015). *2015 Calabarzon Regional Development Report*. NEDA Regional Office IV-A, Calamba City, Philippines
- United Nations Children’s Fund (January 10, 2017). *Early Moments Matters’ for Children’s Brain Development*.
http://www.unicef.org/media/media_94378.html
- United Nations Children’s Fund Council for the Welfare of Children. (2016). *National Baseline Study on Violence Against Children: Philippines*.
<http://resourcecentre.savethechildren.net>
- United Nations Development Programme (n.d.). *Disability and Vulnerability*.
<https://hdr.undp.org>

Chapter 12: Building Safe and Secure Communities

- Drinnien, B.A., Irwin, D.B., Simons, J.A. (1987). *Maslow’s Hierarchy of Needs from Psychology-The Search for Understanding*. West Publishing Company, New York.
<https://www.andrews.edu/~ggifford/EDAL520SU05/Need%20Hierarchy%20Theory.doc>

Chapter 13: Reaching for the Demographic Dividend

- United Nations Population Fund (n.d.). *Demographic Dividend*.
<http://www.unfpa.org/demographic-dividend#sthash.4r0FCaAP.pdf>
- NEDA Region IV-A. (2015). *2015 Calabarzon Regional Development Report*. NEDA Regional Office IV-A, Calamba City, Philippines
- Philippine Statistics Authority. (2011) *2011 Annual Poverty Indicators Survey*.
<http://psa.gov.ph/content/results-2011-annual-poverty-indicators-survey-apis>

RDP 2017-2022 Planning Committeesⁱ

PLANNING COMMITTEE ON MACROECONOMY AND DEVELOPMENT ADMINISTRATION

Acting Chair: Regional Director Luis G. Banua, NEDA Region IV-A

Member Agencies:

Armed Forces of the Philippines (AFP)
Batangas Provincial Planning and Development Office (Batangas-PPDO)
Bureau of Customs-Port of Batangas
Bureau of Internal Revenue (BIR)
Bureau of Local Government and Finance (BLGF) IV-A
Cavite Provincial Planning and Development Office (Cavite-PPDO)
Cavite State University (CvSU)
Civil Service Commission (CSC)
Commission on Human Rights (CHR) IV-A
Credit Development Authority (CDA) IV-A
Department of Budget and Management (DBM) IV-A
Department of Interior and Local Government (DILG) IV-A
Department of Labor and Employment (DOLE) IV-A
Department of Trade and Industry (DTI) IV-A
Laguna Provincial Planning and Development Office (Laguna-PPDO)
Laguna State Polytechnic State University (LSPU)
National Anti-Poverty Commission (NAPC)
National Intelligence Coordinating Agency (NICA) IV-A
Office of the Civil Defense (OCD) IV-A
Office of the Presidential Adviser on the Peace Process (OPAPP)
Parole and Probation Administration-Department of Justice (PPA-DOJ) IV-A
Philippine Drug Enforcement Agency (PDEA) IV-A
Philippine Information Agency (PIA) IV-A
Philippine National Police (PNP) IV-A
Philippine Statistics Authority (PSA) IV-A
Quezon Provincial Planning and Development Office (Quezon-PPDO)

Regional Tripartite Industry Peace Council (RTIPC)
Rizal Provincial Planning and Development Office (Rizal-PPDO)
Southern Luzon Command
Southern Luzon State University (SLSU)

PLANNING COMMITTEE ON ECONOMIC DEVELOPMENT

Chair: Private Sector Representative (PSR) Richard Albert I. Osmond, Philippine Industrial Estate Association Inc. (PHILEA)

Co-chair: Regional Director Rebecca V. Labit, DOT Region IV-A

Member Agencies:

Association of Petrochemical Manufacturers of the Philippines (APMP)
Batangas Provincial Cooperative Development Office and Veterinary Office
Bureau of Fisheries and Aquatic Resources (BFAR)
Cavite State University (CvSU)
Cooperative Development Authority (CDA) IV-A
Department of Agrarian Reform (DAR) IV-A
Department of Agriculture (DA) IV-A
Department of Environment and Natural Resources (DENR) IV-A
Department of Labor and Employment (DOLE) IV-A
Department of Science and Technology (DOST) IV-A
Department of Tourism (DOT) IV-A
Department of Trade and Industry (DTI) IV-A
Development Bank of the Philippines (DBP)
Laguna Lake Development Authority (LLDA)
Lyceum of the Philippines-Laguna
Mines and Geosciences Bureau (MBG-DENR) IV-A
National Economic and Development Authority (NEDA) IV-A
National Food Authority (NFA) IV-A
National Irrigation Administration (NIA) IV-A
Philippine Coconut Authority (PCA) IV-A
Philippine Crop Insurance Corporation-Department of Agriculture (PCIC-DA) IV-A
Philippine Fiber Industry Development Authority (PhilFIDA)
Philippine Statistics Authority (PSA) IV-A
Quezon Provincial Tourism Office

Sorosoro Ibaba Development Cooperative (SIDC)
Southern Luzon State University (SLSU)
Tahanang Walang Hagdanan, Inc.

PLANNING COMMITTEE ON SOCIAL DEVELOPMENT

Acting Chair: PSR Josephine C. Parilla, PATAMABA-Workers in the Informal
Sector Enterprise (WISE)

Member Agencies:

Batangas Provincial Planning and Development Office and Provincial Tourism Office
(Batangas-PPDO & PTO)

Batangas State University (BatStateU)

Cavite Provincial Planning and Development Office (Cavite-PPDO)

Cavite State University (CvSU)

Commission on Higher Education (CHED) IV-A

Department of Agrarian Reform (DAR) IV-A

Department of Education (DepEd) IV-A

Department of Health (DOH) IV-A

Department of Interior and Local Government (DILG) IV-A

Department of Labor and Employment (DOLE) IV-A

Department of Social Work and Development (DSWD) IV-A

Housing and Urban Development Coordinating Council (HUDCC)

Kabising ng Kalahi, Inc.

Laguna Provincial Planning and Development Office (Laguna-PPDO)

Laguna State Polytechnic University (LSPU)

National Commission on Indigenous Peoples (NCIP) Southern Tagalog

National Economic and Development Authority (NEDA) IV-A

National Nutrition Council (NNC) IV-A

Parole and Probation Administration-Department of Justice (PPA-DOJ) IV-A

Philippine Health Insurance Corporation (PhilHealth)

Philippine High School for the Arts

Philippine Information Agency (PIA) IV-A

Population Committee (PopCom) IV-A

Presidential Commission for the Urban Poor (PCUP)

Quezon Provincial Planning and Development Office (Quezon-PPDO)

Rizal Provincial Planning and Development Office (Rizal-PPDO)

Social Security Services (SSS)
Southern Luzon State University (SLSU)
Technical Education and Skills Authority (TESDA) IV-A
University of the Philippines Los Baños (UPLB)

PLANNING COMMITTEE ON INFRASTRUCTURE DEVELOPMENT

Chair: PSR Engr. Ladislao Andal, Philippine Institute of Civil Engineers
(PICE)-Batangas Chapter

Co-Chair: Regional Director Samson Hebra, Department of Public Works and
Highways (DPWH) IV-A

Member Agencies:

Batangas Provincial Planning and Development Office (Batangas-PPDO)
Batangas State University (BatStateU)
DENR-Environment and Management-Department of Environment and Natural
Resources (DENR-EMB) IV-A
Department of Agrarian Reform (DAR) IV-A
Laguna Provincial Planning and Development Office (Laguna-PPDO)
Laguna State Polytechnic University (LSPU)
Land Transportation Office (LTO) Region IV-A
Maritime Industry Authority (MARINA)
Metropolitan Waterworks and Sewerage System (MWSS)
National Electrification Agency (NEA)
National Irrigation Agency (NIA) IV-A
National Telecommunications Commission (NTC) IV-A
Philippine National Railway (PNR)
Philippine Ports Authority -Port Management Office Batangas (PPA-PMO Batangas)
Philippine Ports Authority-Port Management Office Marinduque and Quezon (PPA-
PMO) MarQuez
Quezon Provincial Planning and Development Office (Quezon-PPDO)
San Pedro Water District
Southern Luzon State University (SLSU)
Alabat local government unit
Dasmariñas Water District
Laguna Water District

Maragondon Water District
Tiaong Local Government Unit

PLANNING COMMITTEE ON REGIONAL LAND USE

Chair: Regional Director Luis G. Banua, NEDA Region IV-A

Member Agencies:

Ayala Land

Batangas Provincial Planning and Development Office Environment and Disaster Risk Reduction and Management Office (Batangas-PPDO & PDRRMO)

Cavite Provincial Planning and Development Office, Environment and Natural Resource Office, Disaster Risk Reduction and Management Office (Cavite-PPDO, PGENRO & PDRRMO)

Cavite State University (CvSU)

De La Salle University-Dasmariñas

DENR-Environment and Management-Department of Environment and Natural Resources (DENR-EMB) IV-A

Department of Agrarian Reform (DAR) IV-A

Department of Environment and Natural Resources (DENR) IV-A

Department of Justice (DOJ) IV-A

Department of Tourism (DOT) IV-A

Housing and Land Use Regulatory Board-Southern Tagalog Region (HLURB-STR)

Laguna Lake Development Authority (LLDA)

Laguna Provincial Planning and Development Office, Disaster Risk Reduction and Management Office (Laguna-PPDO & PDRRMO)

Laguna State Polytechnic University (LSPU)

League of Local Development Planning Coordinators, Inc. (LLDPCI)-Batangas Chapter

League of Local Development Planning Coordinators, Inc. (LLDPCI)-Laguna Chapter
Manuel S. Enverga University Foundation

Office of Civil Defense (OCD) IV-A

Philippine Association of Landscape Architects

Philippine Industrial Estate Association Inc. (PHILEA)

Quezon Provincial Planning and Development Office and Disaster Risk Reduction and Management Office (Quezon-PPDO & PDRRMO)

University of the Philippines Los Baños College of Human Ecology (UPLB-CHE)

Lipa City Local Government Unit
Sta. Rosa City Local Government Unit

PLANNING COMMITTEE ON REGIONAL COMPETITIVENESS

Chair: Regional Director Marilou Q. Toledo, DTI Region IV-A

Member Agencies:

Bangko Sentral ng Pilipinas (BSP) IV-A
Batangas Provincial Planning and Development Office (Batangas-PPDO)
Cavite Provincial Planning and Development Office (Cavite-PPDO)
Cavite State University (CvSU)
Department of Labor and Employment (DOLE) IV-A
Department of Tourism (DOT) IV-A
Employers' Confederation of the Philippines
Laguna Industry Network for Knowledge, Innovation and Technology (LINK-IT)
Laguna Provincial Planning and Development Office (Laguna-PPDO)
Laguna State Polytechnic University (LSPU)
National Economic and Development Authority (NEDA) IV-A
Philippine Industrial Estate Association Inc. (PHILEA)
Philippine Statistics Authority (PSA) IV-A
Quezon Provincial Planning and Development Office (Quezon-PPDO)

¹ Only PC members who attended the RDP Planning Consultation Workshops and/or provided inputs to the RDP are cited.



**REGIONAL
DEVELOPMENT PLAN
2017-2022**

Published by:

NEDA Regional Office IV-A (Calabarzon)
2560 4th Floor Marcelita Building, Barangay Real
Calamba City, Laguna 4027 Philippines
(+6349) 545-7756 / (+6349) 576-0150
Email: rdc.calabarzon@gmail.com

www.calabarzon.neda.gov.ph